CATCH22

ABSTRACTS & PROCEEDINGS

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1.1 The Technology \Tipping\ Point

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Abstract

One straightforward question was asked over 7 months ago in an Interaction Design Association discussion on Linked In. "Do designers need to be able to code?" Since then there has been over 385 responses to the question. Although the inquiry was asked in a closed-end manner, the responses have been both varied and considerate. However, from the perspective of an educator concentrating on the intersection between design and technology the question is more complex. If we were to agree that a design student be versed in a particular technology, then as educators we must devise a plan that emphasizes the balance between design and the tools used in it's execution.

How does one decide what technologies and techniques be included in a course given the rapid evolution of front-end web development? Is there any way to insure that the class content remain on the cutting-edge? How does the mobile web, app development and digital publishing fit into an already crowded curriculum? Beginning with one misfit introductory web design class seven years ago, this paper will examine the transition into a balanced curriculum that embraces the convergence between design and technology while resting comfortably between print and digital design.

1.2 Design and Technology: Frenemies Against a Common Foe

David Begley
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Abstract
The relationship between technological skill and creative and critical thinking is a frequent point of contention in design education. Our panel will address how technology is not the enemy of design, but rather an ally against a barrage of ineffective visual communication. Historically, technology has led the charge, with production methods influencing design aesthetics. However, as the tools and the media of graphic design have become more accessible, more people are producing visual messages; it is design thinking that often takes command to generate original, effective, inspired visual solutions. We will explore the symbiotic relationship between design and technology through historical examples.

The identity of a graphic designer exists not just in having the tools of one, but also in the ability to think like one, specifically through problem solving and creative concept development. Many design education programs try to separate the teaching of design principles from the tools of design practice. Our program encourages students to explore design as both a noun and a verb. They learn concurrently the principles to conceptualize and visualize successful designs, and the software practices to effectively design them. We will discuss the strategies used in our introductory level courses, including computer-based and computer-free projects, to teach students that achieving smart visual solutions relies on a balance of technological skill and design knowledge.

Ivan Chermayeff said, "The design of history is the history of design," and what is history but constantly advancing and evolving technologies? We will aim to show how a successful graphic design education can rely on teaching students enough about the tools to produce effective visual communication and enough about design theory, principles and aesthetics that they may continue to produce these solutions as technologies inevitably and rapidly change.

1.3 Design Technology and the Beginning Design Student

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Abstract

Tackling issues of technology and the design classroom is something that each program must address in the sphere of their own unique design environment. Pragmatic considerations, such as departmental design philosophy, expertise of the faculty, and availability of physical facilities are all part of the mix when it comes to putting together a successful curriculum. A quick look at various design curricula from across the country reveals that there is no single, correct method or sequence.

When the question of technology is focused on the beginning design student, special care must be taken to achieve stated curricular goals. Incoming freshman arrive at college or university with established sets of skills; interesting pre- conceptions about graphic design in general, and computer-aided design specifically. The responsibility for establishing a baseline of knowledge regarding design technology is often found in the coursework of the beginning design studios, and conveyed to students by faculty who teach at that level. In some cases, this process requires a bit of un-learning because of the diverse methods of incorporating design technology in secondary education, which is as diverse as the students themselves. The double-edged sword of technology teaches us that it can be both a blessing and a curse that many high school students spend too much time in Photoshop, or making videos for Youtube.

So, how do we establish a baseline of knowledge and understanding with the beginning design student? Is the computer best utilized (for beginning students) as a research tool? Should the first design studio incorporate computer technology in the design process, or is the development of non-digital hand skills more important? These questions, and more, must be asked when considering the "Catch 22" of design technology in the classroom.

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Design Technology and the Beginning Design Student

Graphic design education is not new to the integration of technology. From the letterpress, to the camera and photomechanical production, we have eagerly adopted technology that both modernizes and streamlines the design process, and have adapted our curricula accordingly. In today's educational institutions, digital technology is transparent and ubiquitous. How a design program can best integrate and utilize technology, however, is still an issue which must be specifically tailored to the individual construct of each educational institution's particular program.

Central to the question of how to integrate digital technology is how one defines that system. Digital technology is so versatile that it is able to cross platforms, so to speak, and to wear many hats simultaneously. In the guise of the computer, it has for over 25 years been defined variously as a design tool, a design medium, or both. Then, since the introduction of the computer, an enormous concentration of information is being warehoused on the internet, which has turned digital devices into powerful research tools. Perhaps the most profound effect of this technology on society, education and business is that it enables communication and networking on a scale unthinkable mere decades ago. Digitech is, in very real and complicated ways, changing the manner in which we communicate and interact with each other and the networked world.

How a program defines and addresses the integration of digital technology should coincide with their identified strengths, and should not conflict with the program's education philosophy or stated priorities. Decisions must also include such practical considerations as the expertise of the faculty and the availability of physical facilities, amongst many others. Major--and sometimes contentious--considerations for educators are: "When in the curriculum should technology be introduced?" and "How should that integration occur?" These two questions are especially relevant when discussing the curriculum and objectives for the beginning design student.

From a universal perspective, certainly one of the responsibilities of our educational institutions is to prepare students for their future careers. In *The Process of Education*, Jerome Bruner articulates the objective of a linear education process. "*The first object of any act of learning, over and beyond the pleasure it may give, is that it should serve us in the future. Learning should not only take us somewhere; it should allow us later to go further more easily.*" [1] Besides reinforcing the importance of education as a process, this approach to education also implies the benefits of a well-structured curriculum–one with progressive goals.

In their essay, "The Common Core," from *The Education of a Graphic Designer*, Geoffry Fried and Douglass Scott state that *"Basic graphic design education should cover subjects relating to perception, concept, and method, with particular emphasis on the relationships among these three things."* [2]

Categorizing design principles under the headings "*perception*," "*concept*" and "*method*" efficiently organizes foundation objectives, for included in *perception* lies the *"development of visual skills and sensitivities,"* the *"ability to differentiate, recognize*

nuances of shape, form, placement, value, color and space," and *"the awareness of the creation of specific visual or physical relationships."* [3] These educational goals speak to the very essence of our discipline–that the designer is, at the very core of things, a form-giver. In the development of *perception,* students learn the essential elements and principles of design and how they can and should be manipulated to problem-solve. This method of teaching harkens directly back to the Preliminary Course at the Bauhaus, and a timeline of classroom exercises to help meet those goals has been generated by a series of experts and successful educators--from Armin Hofmann's *Graphic Design Manual* (1960's) to Ellen Lupton's *Graphic Design: The New Basics* (2008).

The careful study of *concepts* aids young design students in assuming the role of visual thinkers when coursework demonstrates that *"concepts are visual ideas and exist in a specific context."* [4] Fried and Scott state that, *"Concepts are communicated through the organization of the material (structure, emphasis, and hierarchy) and through association with known ideas (symbols, signs, metaphors, and visual language.)"* [5] Once basic knowledge about form, color, value, texture, etc. is established, students are able to understand how designers infuse meaning into form, through structure, symbols and cultural metaphors. Obviously, the creation of successful, relevant concepts is essential when developing the skill sets of young designers, and should be presented as a universal educational goal that crosses all media and niches of graphic design.

Finally, *methodology*, which *"includes a broad range of skills and activities that allow us to accomplish tasks described above* [in perception and concepts]. *At one end of this range are the very specific skills that go with making something in any medium:*

knowledge of tools, materials, and processes. At the other end are the general problem-solving skills that are common to all areas of design: techniques for problem definition, generation and evaluation of ideas, visualization and prototyping, and implementation, production, and documentation of solutions." [6]

These three categories, however educational institutions may differently refer to them, are commonly addressed in some form in most design foundation coursework. Additionally, it's fair to say that most programs are of the "old school" philosophy, which asserts that students fare better if they learn basic skills--like visual analysis of form from nature, eye-hand coordination skills and problem-solving skills--away from the screen, in part because the computer is such a dazzling, complex tool that it can be distracting to beginning students, particularly in the *perception* phase of their design education.

While limited digital integration for freshman may have worked for the past 20 years, the current reality is that today's programs are experiencing a situation where the student's second year of study gets bogged down in a combination of more complex design problem-solving and the integration of the computer into coursework. It seems that programs are not in line with Bruner's structure of establishing a curriculum that is truly progressive. In other words, freshmen classes are not fully preparing students for their sophomore studies. A balanced progression between first- and second-year classes could well be achieved through a re-evaluation of the coursework for freshman studio classes, by introducing technology while maintaining a firm focus on the hand-craft of traditional design.

Thankfully, the days of the computer as the large obtrusive box are gone. Also on

its way to becoming a dinosaur is the "computer lab." 20th Century technology created a situation in which educational institutions struggled to maintain high-end digitech stations, which inherently separated digital design from the more organic hand-crafted design. The compact nature of 21st Century technology has removed those very barriers, creating the possibility for a more cohesive design environment. Just as physical design spaces have become more integrated, so may foundation assignments. For example, a simple image-generation exercise could incorporate both representation from nature and digital illustration, incorporating technology as a design *tool*. Presentation of this exercise could include technology as a *medium* by requiring students to present both a printed and digital version of their assignment.

Digital technology as a *research* tool is profound in its influence, giving students access to an unbelievable web of information, data and visual references. In fact, practically the entire visual history of our discipline is available on-line for students to absorb. Students must be educated on how to approach this powerful research tool, both on its verbal and its visual content.

We have seen a dramatic shift in the area of digital technology as a *communicating* and *networking* tool. Because students are extremely well-versed in the digital social media–and in the informality of that structure--they bring that aspect of their lives to their education. Incoming freshman frequently are most comfortable emailing comments, questions, and attached assignments, and are looking for instant support or critique. For educators of a certain age, this ongoing situation raises the age-old issue of technology creating a field of isolation. Even the "social networking" aspect of our digital age is, in some respect, a cold and lonely landscape. But this definition

does not ring true for contemporary students, who, by the time they reach university, are already so firmly and inexorably entrenched in digital communications, that they are accustomed to this form of interaction, and naturally bring this mode of communication to their education process. Therefore, students today are more comfortable sending digital queries than raising their hand in class to pose their questions. The continuing development of "social media" in its many guises portends that, once again, digital technology itself may solve another problem it created, that of technological isolationism. Design programs should develop protocols for incorporating the social aspect of digital technology, and take advantage of collaborative possibilities, which would serve not only the education process, but the students themselves.

To conclude, the struggle with the technology of Modernity is not new to our discipline – nor is it likely to end any time soon. In 1965, Armin Hofmann was trying to come to terms with the impersonal quality of new design tools. *"The instruments and aids that are placed in our hands nowadays are far too tricky for us to use them unquestioningly. The more cunningly devised they are, the greater the knowledge that is required before they can be put to wise and responsible use."* [7] Mr. Hofmann was commenting on the "new" technology of rapidographs and ball-point pens, but the caution of moving forward with thoughtfulness is always good advice, and clearly relevant today.

Certainly, one of the most exciting aspects of graphic design is that the discipline is still quite young, and is continually evolving. Because the discipline relies on digital technology as a tool, a medium and communication device, we are caught up in technology's rapid expansion. The current whirlwind of innovation is fascinating, but

leaves us little time to pause and reflect – which, as educators, it is advisable that we

do, in order to evaluate an action or course of actions. In his 1992 book *Technopoly*,

Neil Postman wrote: *"A new technology does not add or subtract something. It changes*

everything." [8] And we are still in the beginning phases of understanding how the

computer and digital technology is changing the way we design, educate and live. A

progressive, balanced integration of digital technology in the beginning design studios

will help ensure that students move forward with the proper skill sets to succeed as 21st

Century graphic designers.

1. Bruner, Jerome, *The Process of Education*, Harvard University Press, Cambridge, Massachusetts, 1977, p. 17.
2. Heller, Steven, ed. *The Education of a Graphic Designer*, Allworth Press, New York, NY, 1998, p. 174.
3. Ibid.
4. Ibid.
5. Ibid.
6. Ibid.
7. Hofmann, Armin, *Graphic Design Manual*, *Principles and Practice*, Van Nostrand Reinhold Company, New York, NY, 1965, p. 11.
8. Postman, Neil, *Technopoly: The Surrender of Culture to Technology*, Vintage Books, New York, 1993, p. 18.

2.1 Empowerment video wall a faculty, alumni designer, student, and community project collaboration case study.

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Abstract

National Urban League Centennial Empowerment Exhibit

From concept to installation, sixteen 46" LCD, video wall featured in the National Urban League Centennial Empowerment Exhibit celebrating 100 years of empowering communities and changing lives. Inspired by the Urban League's "I Am Empowered" initiative, this video experience was designed to promote a message of hope and individual empowerment, while reflecting on the organization. In addition to original musical scores, videography, and photography the presentation also features archival footage from the Civil Rights era, and news coverage of the Urban League's leadership in urban social justice.

Opening motion graphics are followed by archival images depicting the Urban Leagues history that are followed by cityscape panoramic images representative of the over 100 Urban League offices. Montague of archival news coverage contrast urban problems with Urban League efforts. Case studies of successful Urban League programs are featured. Life size young professionals give testaments to their volunteer efforts working with the homeless, elderly, and children in their urban communities. Mini documentaries cover the national Urban League Policy Institute and University Black Executive Exchange Program. A spoken word performance makes an appeal to the audience to take the Urban league's Empowerment pledge - to pledge your time to assuring: Every American child is ready for college, work and life and that every American has access to jobs with livable wages and benefits, affordable housing, and health care.

2.2 Material Meaning: Using Physical Materials to Form and Inform Visual Communication

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Abstract

Most graphic design work today starts and ends on the computer. Digital tools are firmly embedded in the contemporary design process, but are not the only (or the best) tools at our disposal. The synthesis of old and new, analog and digital, and hand- and computer-based methods provides designers with an opportunity to work beyond the constraints of the computer and take advantage of the aesthetic effects that actual materials bring to visual communication.

Designers can use physical materials and processes as a way of both forming and informing visual communication. Materials have the power to communicate ideas through their aesthetic qualities, even when words are not present. When the connotation of a word and the associations inherent in a material intersect, communication can be amplified exponentially.

Digital tools open up and overcome the limits of physical materials, allowing the imperfection of materials to enter the space of the design, and providing designers with a means of abstracting and reproducing their physical properties. When we filter materiality through digital technology into applied graphic design, we control and edit the aesthetic effects of material traces. We are able to obscure the literal sense of a material while holding on to its markmaking qualities and associations. The resulting forms display a dynamic contrast—the crisp contrasting the organic, the illusion of materiality in a reproducible, two-dimensional surface, and an honesty in the way the images were made that is different than most Photoshop-heavy design created today.

This presentation argues that when designers resist the passivity of digital tools and take a more active involvement in their process, bringing the aesthetic effects of working materially into the realm of the digital, they have the power to humanize mass media and visual communication. Ultimately, analog and digital synthesis is beneficial to the end product of visual communication.

2.3 Learning Through Copying: Incorporating Copying into Design Education

Jorge Silva Jetter
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University

Abstract

With the advent of copy/paste and import/export it does not make any sense to think of work in the field of design as 'pure' or 'unique'. Most of the work being created in the field of design today is primarily a product of copying, transforming, and remixing. Indirect and direct references to other work are inescapable in the current design spectrum. Design education should embrace this methodology as intrinsic to its own practices and processes. When do we ever teach students how to steal from others? This paper will address how to incorporate new methodologies into the classroom that embrace referencing and copying others. The paper will also deal with the ethical dimensions of this issue, recognizing that not all forms of copying are made equal.

3.1 Tempo giusto—What is the Right Pace for Teaching Graphic Design

Paul Burmeister
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Abstract

Tempo giusto is a musical term for the right speed, sometimes compared to human striding, at which a piece should be played. In this paper, perspectives from psychology, sociology, and neuroscience are combined to propose that educators should consider a right pace for teaching graphic design. The forces of nanosecond technology and a don't-blink culture exert pressure on both student and teacher to "hurry up already," which can have negative effects on the experiential pace of an education in design. Theories related to aspects of time are reviewed, assumptions about process are identified, and practical methods are shared—with the purpose of helping educators evaluate what is a good pace for the discipline, broadly, and for the situation, locally. For example, how do our notions about time affect the outlines of courses within the curriculum and the construction of individual assignments? The presenter will share an example for building time into the repetition of concepts taught in sequenced graphic design courses and an example for building time into the parts of comprehensive, graphic design assignments. This paper is practical to small and medium-sized programs, typically B.A. programs. The ideas about time and pacing are useful to anyone interested in the effects of managing them.

***Tempo giusto*–What Is the Right Pace for Teaching Graphic Design?**

"Catch 22," the Eighth Annual UCDA Design Education Summit

May 20–21, 2012, Virginia Tech

PAUL R. BURMEISTER

Tempo giusto—What Is the Right Pace for Teaching Graphic Design?

INTRODUCTION 1.0

Tempo giusto is the musical term for a right or normal tempo, usually the equivalent of 76–80 beats per minute. Another basis for standard tempo is physiological, such as the normal pulse of a resting heart or the normal walking stride of a human; a physiological *tempo giusto* puts the standard at 60–70 beats per minute. In real practice, *tempo giusto* refers to the inner movement or proportion assigned to a piece's performance by a sensitive performer.

Can there be a *tempo giusto* for the experiential pace of a graphic design education? Yes. I propose that its pace should be influenced by what we know about the speeds of neurological processing and by required durations for effective design thinking. Is there a "metronome reading" for this natural inner movement of thought? Of course not. Every situation has different requirements. And yet, what we know about the graphic designer's trade and its required complement of mental operations and what we recognize as loosely shared assumptions about good designing suggest that the natural tempo of a graphic design education is something to keep in mind, especially as the pace of daily life accelerates.

INTRODUCTION 1.1

Graphic designers have probably always intuited that different paces of thinking are effective to different kinds of mental tasks required by their work. Research about the brain and cognition from the last several decades supports this intuition. Designers are prized in the marketplace for their specialized, highly developed kinds of thinking. The designer, like other marketplace *actors*, is regularly contracted to choose among options, to make decisions, and to solve problems. The graphic designer's value proposition is the capacity to work through an imaginative and iterative design process to create solutions for visual communication. Research clearly shows

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that thinking processes for this kind of embodied activity are most effective when time pressures are relaxed, allowing the actor's brain to work at its natural pace.

I am neither a researcher nor a neuroscientist. My formal training is in fine arts. I was an art director for ten years and have taught graphic design for another decade. As an educator my interest in the pace of teaching and learning was prompted by the continuing, unrelenting acceleration of action and culture in a world that seems increasingly less interested in comprehending the effects of fast time on truly creative thinking. I first encountered scholarly affirmation of my interest when I discovered Eva Hoffman's splendid, little book from 2009, simply titled *Time*. In the opening and concluding chapters of her book she describes a *tempo giusto,* or flow, for a happy experience of daily life. Since then, the writings of William Connolly (political theorist), Sheena Iyengar (choice theorist), Jonah Lehrer (science writer), Juhanni Pallasmaa (Finnish architect), and Irving Tallman (sociologist) have informed my arguments for a reconsideration of pace for design and design education. One general trend demonstrated by many of the authors I'm reading is to find room in traditional scientific theory for the parallel, interdisciplinary perspectives of cognitive science and neuroscience and to avoid determinist, reductionist frameworks. The outcome of this trend is rigorous articulation for concepts of imagination and knowing that are embodied and more layered than reductive modes of rationalism or determinism. Digging one level deeper, in case the reader is interested in intellectual pedigree, the thinkers these scholars quote most frequently are Gaston Bachelard, Henri Bergson, Antonio Damasio, Gilles Deleuze, William James, Friedrich Nietzsche, Rafael Núñez, Jean-Paul Sartre, and Francisco Varela.

INTRODUCTION 1.2
I've found enough consensus in the fields of cognition and neuroscience to support my argument for a pace or tempo *natural* to the kinds of thinking a graphic designer does. The pace of this inner movement is relatively slow, at a speed oddly counter-intuitive to current culture of design because technologies of design and communication and systems of commerce create self-fulfilling expectations of fast time. In fact, fast time

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thinking, or "grid thinking" as Hoffman describes it, is good and effective for action situations, for channeling norms of behavior, for habit-forming, for making moral and emotional choices, and for circumstances of obligation and duty. But how well does fast-time thinking match the creative activities of a graphic designer? What is lost by teaching design in a way that reinforces fast-time thinking to the exclusion of other tempos? And, what is gained by teaching and modeling in situations where time is slowed down?

VIS À VIS

What remains forefront in this paper is the pace of learning and development experienced by a graphic design student. The experience of an education is more than the acquisition of knowledge and skills; education is also experienced as ambiance / environment, culture, and background material. Its acquisitions have tempo, rhythm, dynamics, and tone. I agree with Henry Wriston who wrote 75 years ago that higher education is about growing the private life of the mind, that education equips the individual with liberating values, in order to meet the tensions of life. Wriston advocated for an *unhurried* tempo for higher education (which can be slower *and* faster, as long as the tempo is not hurried), isolating the student from a fast and uncomprehending world. When someone argues for a natural pace for education, he or she is not being a reactionary who flinches at speeding "progress." I have not been drawn to these ideas because they are conservative; in my view they are *radical,* because they make appeals to the roots or origins of things. Similarly, I am not advocating a shift for the experience of design education because I am sentimental; instead, I am convinced that allowing for a slower pace is a radical shift.

ASSUMPTIONS 2.0

In order to be successful at their jobs, graphic designers must think and perceive in more than one way, because their activity is various and dynamic. The contribution of designers to healthy society and economy is rooted in the unique, essential nature of designing. Every designer should have developed access to: conscious and intuitive processes, intellect and affect, subjective and intersubjective dimensions, deliberation and impulse,

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analytical and inventive thinking, serious and playful states of mind, free and ethical structures, and individual and social values. A highly developed designer makes appropriate choices, is aware of biases (heuristic or otherwise), manages risks and ambiguities, and is skilled at problem formulation and solving.

ASSUMPTIONS 2.1

The designer's brain does not function like a computer; instead, the brain is malleable, labile, and dynamic. Neurologically (at the level of neurons), the brain is in a constant state of cellular upheaval—science has recently observed neurogenesis and is just beginning to understand the role of retrotranspons in creating individual differences. Different regions of the brain operate at different speeds, and different kinds of thinking require different durations of time. Both imagination and perception are constrained by the speed of neurological processes. Thinking, no matter how conscious, is volatile and always influenced by layered forces of affect, memory, and viscera (in the phenomenological sense.) Generally, human thinking is remarkably elastic and quick, but exceeding its required neurological pace results in loss of function and depth. Unlike a computer, which "thinks" nearly simultaneously and without real processing, the human mind is thoughtful, imaginative, and associative.

> "In order to reflect on a problem or build an argument, we need to turn mental attention
>
> inwards, to mull over ideas and let the mind wander; to sift the important from the trivial; to
>
> follow thoughts in their course and consider the disjunctions and connections between them. If
>
> the occurrence of a single thought happens in measurable time, then the development of ideas,
>
> or the elaboration of a creative impulse, or self-examination, all happen in more extended
>
> durations, and need more persistent concentration. . . . The processes of reflection, and of
>
> subjectivity, take time—that peculiar, non-mathematical temporality which moves at its own
>
> errant pace and with its own meandering rhythms." (Hoffman, 175-177)

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ASSUMPTIONS 2.2

The pace of life and action in our culture is increasing. As the pace increases, the need for diversity of culture increases; otherwise, the pressures of a fast life squeeze out diversity in favor of monoculture. As the pace increases, creativity and the life of the imagination require special nurturing. Every writer I've read, who comments or reports on developments in neuroscience and cognitive studies, is cautious about society's largely uncritical view of fast-time life. Hoffman, for example, examines our (tampering) relationship to time in terms of its measurable effects on the body, on the mind, and on culture.

A quickening pace of action favors thinking that is direct and flat—a kind of sustained efficiency-, emergency-, or habit-thinking. In contrast, design-thinking is observed by neuroscience as being complex and rich, using layered images and memories accessed during relaxed states of mind. Processes of consideration, development, reflection, and elaboration require more extended durations. Motor memory, concentration, and creativity are all relatively slow kinds of thinking. Because designers have been trained and are interested in a kind of heightened seeing, they should be aware that even the process of seeing new things and perceiving their relationships is relatively slow, requiring "top-down" processing by the visual cortex. (See Jonah Lehrer's chapter on Cezanne in *Proust Was a Neuroscientist* for a good explanation of how we process images.)

The designer functions subjectively and objectively and within variations of (what sociologists describe as) *bounded rationality.* In most situations the designer is not encouraged to act like an automaton, and values are not normally absolute. The designer solves problems in a fluid, continuous, changing environment of demands, desires, events, and values. In order to be effective the designer learns to rely, in appropriate degrees, on constraints and habits. However, when time pressures accelerate, the designer, like any actor, is prone to simplify tasks and become more cautious, to overweight negative factors and avoid risks, and to become transfixed and unable to process alternatives. When the environment is uncomprehending and inclined toward speed, the designer is not able to meet tensions, ambiguities, and contradictions with full powers.

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ASSUMPTIONS 2.3

From a behavioral or sociological perspective, the graphic designer is viewed as an actor who chooses to act (or not) in order to achieve a desired outcome and whose action (or inaction) usually has an uncertain or probabilistic consequence. Neither utility theories nor behaviorism theories adequately describe how a designer behaves. Utility theories propose that an actor is purposive, making rational choices to maximize an expected utility and to reduce risk, but there is plenty evidence to show that people commonly do not act this way. Two shortcomings of utility theories are that they do not adequately recognize complexity, and they don't explain the fluctuating nature of thinking. Utility theories describe the principle-based objectives of much design thinking, but utility places too much priority on rational processes and undervalues the role of risk in designing. Behaviorist theories place emphasis on the actor's operant conditioning—the actor is subject to influence of reinforcement, training, socialization, and habit, and much of this influence is not part of the actor's conscious. Unfortunately, behaviorism neither adequately accounts for the mind's role in action nor adequately explains the phenomenon of language. Although designers pay much attention to operant conditioning, they have been trained to cultivate independence and personality in both themselves and users. According to Irving Tallman, the value of these two theories is not in their competition for truth but in the ways each deals with different thinking situations. Their coexistence demonstrates that the human actor is a complicated being; there is no single complete theory for human motivation.

VIS À VIS

Because graphic designers are asked to be highly developed thinkers and this can become their primary value, because many kinds of thinking are restrained by the pace of neurological processes, and because designers do their thinking in flux and are motivated by a variety of desired outcomes, it follows that designers will benefit from exploring *techniques* of thinking, even in the face of real pressures. William Connolly argues that by examining the techniques of thinking, slow versus fast, we can be more critical and more creative.

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"Thinking is not merely involved in knowing, explaining, representing, evaluating, and judging. Subsisting within these activities are the inventive and compositional dimensions of thinking. To think is to move something. And to modify a pattern of body / brain connections helps to draw a habit, a disposition to judgment, or a capacity of action into being." (Connolly, 103)

It also follows that graphic design educators should help their students explore such techniques to prepare them for managing and resisting pressures of fast time. Especially when pressures become normative.

PRESSURES 3.0

Both external and internal forces exert pressures on graphic design education programs to speed up experiences and deliveries of curriculum and content. Externally, higher education faces intense and often unrealistic pressure from its constituencies to recruit more students for design and to efficiently prepare them specifically for career tracks, no matter what number of graduates the industry can absorb. In this mode, parents, students, administrators, and agencies of oversight view education as a commodity, resulting in a lesser appreciation for the formative experiences of education, in favor of a cost-benefit formula that pits financing, time, and "receipts" against substance. For example, in this writer's experience the transfer agreements negotiated between two-year programs (associate degree) and four-year programs (B.A.), as strategy to save money for the student and build enrollments for the program, can result in the transfer student being able to short-cut the full, four-year experience of a comprehensive, graphic design education.

Internally, graphic design educators, being aware of stiff competition among programs, teaching in a world where the decreasing half-life of knowledge in technology is now at six months (or shorter than one academic year), and anticipating their graduates' difficulty in finding employment, are squeezed in time by the sheer volume of required content and graduate competencies. Additionally, it may be true that graphic design

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education is conflicted and unclear about what is the best model—from pre-professional to comprehensive / liberal arts, from A.A. to B.F.A.

When I teach the creative process to design students, I recall my ten years' professional experience as an art director and production manager to caution them that "real world" designers are routinely expected to be inspired without effective time for incubation. In my experience, creative process was commonly speeded up, from *analysis* directly to *inspiration*, without acknowledgement of intervening *incubation* and without need for subsequent *verification*. All four parts of the creative process—analysis, incubation, inspiration, and verification —require appropriate amounts of time, and do not happen in practice unless they are budgeted, unless they are found in schedules and quotes.

VIS À VIS

Then there are the common, becoming universal, fast-time pressures of public and private culture. Everyone is implicated. Even when a person is aware of fast-time life and commits himself to "slowing down," the battle requires extreme change and sacrifice. What will he do with his schedule, the expectations of others, his technologies, his reshaped brain, his embodied habits? How will he develop in himself and others a healthy balance between slow techniques and fast life; for example, how will he nurture a healthy sense of playful instincts when there is no time to "waste"? If she is an educator, can she see value in a counter-culture pace for education, and is she capable to pass on effective principles and techniques to her students? Can she allocate resources (skills and schedules) to a revised program of best practice, where her students experience, and are critically aware of, both slow and fast time?

APPLICATION 4.0

I teach in a small, liberal-arts based program; our 52-credit Media Design major has its home in the Art Department and requires a relevant sampling of communications and business courses. Media Design core courses are taught by two faculty, complemented in select courses by adjuncts who are working, design

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professionals. Other working professionals volunteer their time and expertise to come in and critique student projects. Most of our majors finish the program in four years, given knowledgeable and attentive advising.

Before a Media Design major can enroll in either graphic or web design courses, she must complete two semesters of foundations 2-D Design, usually during freshman year. In sophomore year, she will take one course in Photoshop and another in Illustrator. In her junior year she will take either a two-course sequence in graphic design or a two-course sequence in web design, and then take the remaining course sequence (whichever one was not selected for junior) and a portfolio course during senior year. This is not a perfect program, but it works pretty well, given our department's limited schedule for course offerings.

Because I teach most sections of the first and all sections of the second 2-D Design courses, I have ability to repeat similar assignments in at least two and usually three developing iterations. What is taught as *motif* in the first course becomes *module* in the second and *logo* in the graphic design courses. Likewise, grid concepts are taught in three developed iterations, from simple proportional exercises to layouts of paired-concept pages. My intention in repeating similar assignments, each time in more developed iteration, is to maintain an appropriate pace for learning experiences by spreading them out over time. This practice is a sort of scaffolding, I suppose, but also a measured dose of concept and skill combinations, over time. Of course, this practice is not breaking new ground for graphic design pedagogy; in the least it demonstrates that one way to relieve time pressures on a student's learning experience is to teach the same basic combination of concept and skill in several iterations, instead of all at once.

TWO EXAMPLES OF ASSIGNMENT ITERATIONS

121 2-D Design: letterform as *motif* in field
231 Topics in 2-D Design: *module* design
303 Graphic Design 1: typographic *sign*
304 Graphic Design 2: word concept as *logo*

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121 2-D Design: proportional *grid*

231 Topics in 2-D Design: *grid* and page design

303 Graphic Design 1: layout for *aspect ratio*

304 Graphic Design 2: *paired* layout for 2-page spread

In both the 100-level and the 200-level 2-D Design courses, I teach the art of choosing (using Iyengar's research), the creative process, *kansei* principles (a relatively obscure Japanese model), and selected topics of neuroscience and cognition. I have found that teaching theories of thinking related to the designing process has a way of slowing the students' pace of problem-solving. I agree with Connolly who writes that the *technique* of thinking should be examined if we are attempting to become more creative in our thinking. The concept-to-rough-to-final process, with intervening reviews and critiques, is also scheduled into many projects, especially as students advance through the sequence of courses.

APPLICATION 4.1

Another way I attempt to control the pace of my students' design thinking is to make assignments polyvalent. Any unit assignment has five different parts, each having its own schedule, with different durations staggered or occurring simultaneously. Days or class meetings are divided among lecture and discussion, student presentations, demonstrations of software, studio / lab time, and critiques. The schedule of unit assignments has flexibility in a given semester. Within a unit (there are usually 4-5 units per semester) are the following parts:

ELEMENTS OF A GRAPHIC DESIGN (UNIT) ASSIGNMENT

Readings (lectures, handouts, and Keynotes)

Historical research on topics related to unit (two parts: quick report and 4-minute
    presentation)

Journal (usually a warm-up experience of combine conceptual and technical aspects)

Demo exercises (Adobe CS techniques, completed and repeated in class)

Assignment (rough-to-final process, allowing for *slow* critiques)

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Due dates are staggered; a variety of tasks occur simultaneously. (I admit that this system works particularly well when my sections are limited to enrollments of 10 students. Larger sections would prove more difficult in managing such a generous pace of thinking and development.)

APPLICATION 4.2

Finally, teaching the history of a discipline is a natural way to substantively change the pace of an educational experience because history is essentially reflective and subjective. We are not able to offer a specific graphic design history course in our department, and the art history courses taught by our art historian do not isolate a history of communication design; therefore, I feel especially compelled to include graphic design history in my two-course sequence. Graphic design history is topically handled in the research aspects of unit assignments (as described above.) And with the publication of Patrick Cramsie's, *The Story of Graphic Design* (Abrams, 2010), I have found a text that works well for assigned readings; I use take-home quizzes to lead periodic discussions of historical content. Generally, students find Cramsie's style to be an interesting read; I really appreciate his selection of examples—they are effective to the concise, interdisciplinary nature of his history.

FINIS

I have not completed my study in this domain; but writing this modest paper has paused me long enough in its process to reflect on why the topic matters. I have been pleasantly surprised by how often I stumble onto related readings and situations without trying very hard. Time and pace are topics of the moment, spurred on by exciting brain-and-body research and by rediscovery of earlier, non-logocentric theories. At the end of the day, this paper has three purposes. First, it is a place to begin academic study of recent developments in neuroscience and cognitive theory as a way to prepare the next generation of designers for imagining. Second, it is an encouragement for educators, using perspectives of interdisciplinary research, to continue in the appropriate and often unique pace of graphic design education. Third, it is a proposal to radically shift the pace of graphic design education to include slower rates and longer durations, *if* fast-time thinking is status quo. I

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invite the reader to slow down enough, at least, to reflect on their practice and consider the role of time and

tempo in their teaching.

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3.2 Developing a Responsive & Flexible Graphic Design Program: An Approach to Curricular Redesign

Jason Dilworth
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Abstract

Is it possible for a graphic design program to prepare students to enter an industry rapidly changing in its technology and its scope? Can one small design program with two permanent faculty members service students with many different design interests? In 2009, the graphic design program within the fine art department at a small state school saw a complete turn-over in faculty. The resulting in- stability became an opening to rethink the structure of a historically successful graphic design major to better reflect the complexities of the industry and the student body.

Every course within the major was evaluated for its goals and outcomes. As a result, many were restructured so lessons and assignments were developed to not only reflect their place in a specific class, but also within the overall flow of the major. While the traditional design skill sets were developed within classes, writing, research, collaboration, and community involvement became part of instruction. Projects were also designed to be flexible enough to allow students to explore their specific interests within the diverse graphic design industry.

It can be a burden to become the sole instructors in a successful major, and it can be a challenge to retain particular areas of instructional and design excellence when the responsible faculty leave a program. We present to you a documentation of how, with the right perspective, such a situation can also become and opportunity for curricular reform.

Developing a Responsive and Flexible Graphic Design Program
An Approach to Curricular Redesign

Megan Urban
Assistant Professor

Jason Dilworth
Assistant Professor

This paper assumes that Graphic Design: is not only an object but also a process and way of thinking; when practiced well, can improve the lives of those it serves; is best taught in the liberal arts model, reflecting the multi-disciplinary aspect of design; requires a foundation of basic design principles; is changing and that teaching practices must evolve with the evolving paradigms; can lead to job.

A brief background on SUNY Fredonia.

SUNY Fredonia is a small liberal arts institution in Western New York. The Graphic Design area is located within a fine arts department and the graphic design students make up a large portion of the total enrolled in the Visual Arts and New Media department. There are only two full time faculty members in the Graphic Design area. We are untenured faculty members.
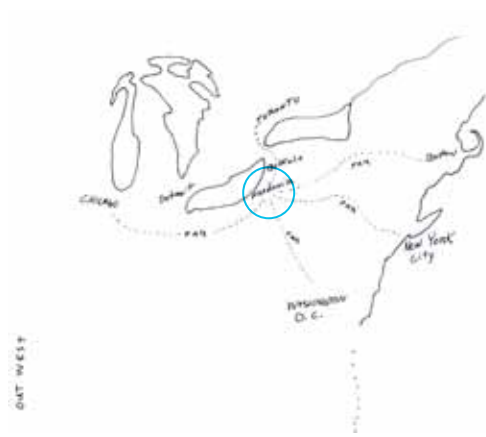
Breakdown of the student demographic

Total enrollment 5,772

200–250 full-time students
(average for VA+NM)

91% Caucasian(1)

94% New York State residents

42.9% Come from immediate and

neighboring counties.

56% Female

44% Male

88% Receive financial aid

Distribution of faculty for Department of Visual Arts and New Media

11 full time faculty members

 in the following areas:

Film+Video (1)

Photography (2)

Drawing & Painting (1)

Sculpture (1)

Ceramics (1)

Animation & Illustration (1)

Art History (2)

Graphic Design (2)

1. www.campusdiscovery.com/colleges/profile/suny-at-fredonia-campus#school-explorer accessed 5/31/2012
All others: www.fredonia.edu/academicaffairs/facts/
accessed 5/31/2012

Most of the students enrolled in the Graphic Design program are from the Western New York Region with some coming as far away and the Hudson River Valley. Few are from the New York City or Long Island area and even fewer are from out of state. As a result, the student body is largely homogeneous and have, for the most part, grown up in rural areas or the suburbs of small Rust Belt cities. Many of our students are first generation college graduates and they, and their parents, place a premium on their ability to find a JOB.

Historically, The Fredonia Graphic Design Program was seemingly built on a foundation of International Style principals, seemingly influenced by the founder's experience in the 1970's New York City design world. Over time the program evolved to include early post-modernist typographic tendencies. Overall, the Fredonia Graphic Design program was known and respected for producing students with outstanding form-making and typographic skills. Their work set the bar high and left us with big shoes to fill.

Beginning in 2009, the Graphic Design Area at SUNY Fredonia was given the gift that most faculty dream about: a blank slate from which to build a curriculum. This was a gift of necessity. It was clear that the curriculum needed to change to match the evolving needs of the industry. Furthermore, the previous faculty had left, taking most of the specifics of the program and their projects with them.

In this paper we present you with our approach to curricular redesign. We realize that we have luxuries that many institutions do not but we also realize the constraints of our institution and region. We know there are limitations to our approach, but we are excited to share the lessons we have learned and hope that you will be able to find inspiration for your own teaching practices.

Lessons learned through the process of restructuring our curriculum.

Old curricular map as we saw it

			Typography 1	Typography 2	Graphic Design 5	Graphic Design 6

ACKNOWLEDGEMENT OF INTERNET

CONCEPTUAL DEVELOPMENT — Typography 3 — Design Realities

INDEPENDENT APPROACHES TO DESIGN SOLUTIONS

DESIGN FUNDAMENTALS

Department foundation level courses	Graphic Design 1	Graphic Design 2	Graphic Design 3	Graphic Design 4	History of Graphic Design	
Freshman year	Sophomore		Junior		Senior	

SIMPLE — COMPLEX
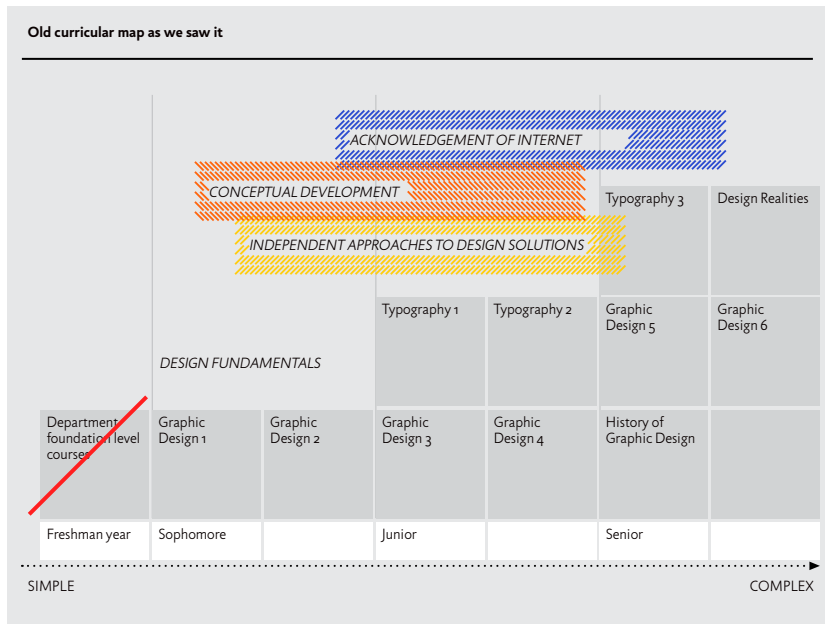
We realized that we needed to view some of the realities of our educational situation as assets. Our students are part of a Liberal Arts Institution. Therefore, our students have the potential, and are encouraged, to explore other areas of interest and augment their design education. Also, our place in an art department allows our students to develop a diverse set of artistic skills and learn video, photography, drawing, illustration, etc., from specialists. We are taking cues from design history where many of the best designers never took a design class, but took painting and drawing classes which then gave them the formal and visuals skills necessary to create sophisticated work.

We also began to have a more open dialogue with our Foundations faculty to address where they were failing and succeeding our students and to trust them to prepare our students to enter the design curriculum.

Lesson 2:

Hold onto what is important.

New curricular map
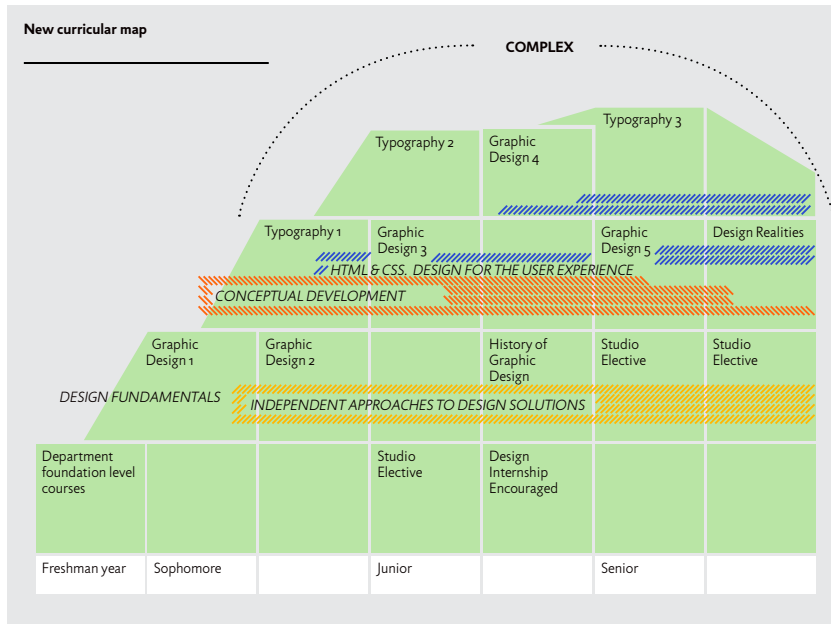
Figure 2

The Graphic Design program at Fredonia is somewhat unique in that it offers three courses in typography as well as design history in addition to the sequence of Graphic Design classes. We felt that retaining those courses was key to ensuring a high quality program. We also realized that many of the course descriptions were written with great wisdom and allowed for flexibility in adding new projects and content. Working within the existing structure prevented a great deal of paperwork and allowed us to easily experiment with our content; there are always ways around bureaucracy.

Learn to let go

The former curriculum was structured so the Sophomore year was treated as another Foundations experience (figure 1). While this lead to very solid fundamentals on the part the students, it had several negative repercussions. As the students did not deal with any typography until their Junior year, they were not in a position to apply for internships before then. Furthermore, content became impacted during the Junior and Senior years so there was little time to address designing for the user-experience of interactivity. We started trusting the Foundations area to prepare our students and adjusted our approach to Graphic Design I, This allowed us to change the chronology of courses so that students enrolled in Typography I concurrently with Graphic Design

II, with other course offerings adjusted accordingly.

After an honest discussion, we came to the conclusion that our students did their best work the Fall of their Senior year but were too preoccupied with the realities of graduation the following Spring to be productive. As a result, we decided to suspend Graphic Design VI. In its place, students take an additional elective in the department, allowing them to deepen their understanding of a related discipline. The loss of the course also negated the need for an adjunct and in low enrollment years would allow us to offer special topics courses. Ideally we would like to have a capstone course that allows students to create substantial and original bodies of work but the realities and limitations of our faculty workload require us to keep the program sustainable.

Teach ideas, not just techniques or programs.

Graphic Design 1: Letterform Project
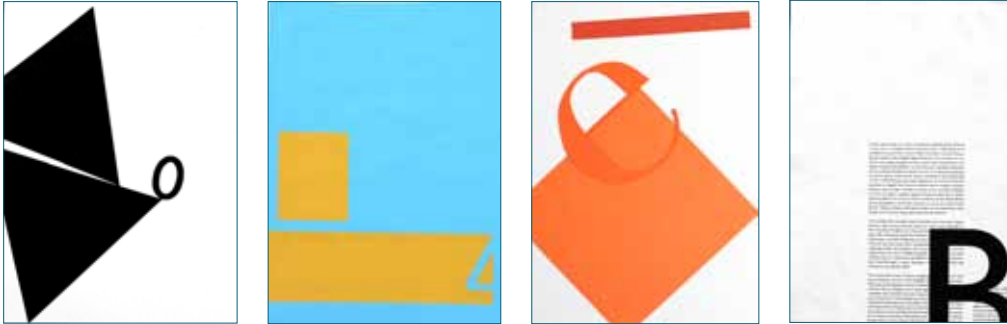
Perhaps this approach is best illustrated in Graphic Design I. The class was reworked to provide a transition from the "fine art" way of thinking and producing work to the "design" way of thinking and producing work. As one student so eloquently dubbed the course, it is "graphic design boot camp." It is very consciously structured to force students to work both inside and outside the computer. Such antiquated techniques as precise measuring and inking of a circle, square, or line, and the creation of forms using gouache are assigned. Eventually, students are also introduced to the precise use of Illustrator and the bezier tool. But why make students use outmoded materials? Because they make the student start seeing details and transitioning from the mind set that .025 inches is close enough to the realization that .025 inches would cause a major mis-registration of a print. Design is as frequently about attention to detail as it is about ideas. This provides a transition.

In one assignment that takes up the bulk of the semester, students are assigned a project inspired by one designed by Julie Mader-Meersman as published in Steven Heller's book *Teaching Graphic Design*. Students are assigned a single classic typeface to research and visually interrogate. They are then asked to create a series of fifty compositional experiments, each exploring different design principles as outlined in Ellen Lupton and Jennifer Cole Phillips' text *Graphic Design: the New Basics*. Students complete the as many as five of these exercises between classes and most are made by hand using gouache, cut paper, and some digital output as directed. After this sequence is completed, they create white, three-dimensional representations of one of the distinguishing characters of their alphabet, then photograph it against a white background, using only lighting, cropping, and focal point to manipulate their composition. The resulting image is digitally corrected to eliminate any flaws in the form. Students translate the image using three tones of white, grey, or black in Illustrator. What is gained by such an exercise? As with other projects in the first year of the curriculum, we force students to use many different materials to solve the same problem. This emphasizes a fluidity of approach. In forcing students to work outside the computer, their thinking process is slowed down and the artificial gloss of completion a digital printout engenders disappears. When students experiment with so many different approaches their solutions become less about Illustrator effects and more about the principles they are exploring.

Graphic Design 1: Explorations of typographic form using value in photography and as graphically translated in digital output from Adobe Illustrator

The second set of related projects in Graphic Design I addresses the creation of form and were adapted from existing assignments. Students begin with observational drawings of taxidermy animals, using those to create by hand plainer stylizations that explore gestalt principles. Then they address the same content, creating highly stylized forms in Illustrator with line weight variation, similar to contour line drawings. Again, by beginning the process with a familiar technique, drawing, and then progressing onto the computer, students are forced to analyze their decisions. Precision and attention to detail is expected and becomes ingrained as part of the creative process, no matter the platform.

The top row left shows the linear translation of form as created in Illustrator while the right shows the same student's solution to the plainer translation of form created using gouache.

The abstract stylization of lower left plainer translation contrasts with the naturalism of the lower right linear translation.

Process is important. And includes writing.

We emphasize design as a process of experimentation throughout our courses. A quantity of thumbnails is key to all assignments, usually 100 numbered initial sketches, with an emphasis placed on a variety of both conceptual and material approaches. Students then develop several different approaches through the rough and comprehensive stage until they settle on a final concept. Frequently we then ask them develop multiple material variations on their own imagery. Forcing them to use different mediums to solve the same problem expands their visual repertoire as well as reenforcing the fact that design is about ideas, not programs.

We hold our students accountable for showing how they arrive at their solutions. Beginning in Graphic Design I, students are required to create an archive of all stages of their work to be handed in with their final project. This archive also includes a documentation of their research, a written explanation of their process, and an analysis of the success or failure of their work. Later students are required to write a semiotic analysis of their solutions and, in the upper level courses, written design briefs are also required as the groundwork for developing all their design solutions.

Lesson 6:

Ideas and textbooks should be used in multiple classes.

When textbooks are adopted, they are adopted with an eye to the program, not a class. We choose texts that will be used again and again. Why? First, good design texts are expensive and we do not want students to spend money on books they will discard at the end of the semester. In using books over multiple semesters and years, students begin to build a design library. Second, many textbooks cover more material than can be taught in a semester. If a text does a good job of covering the content of another class, why not use it? It is obvious that content crosses class borders and so should the texts we use to teach it. No text will ever replace a course, it cannot.

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Lesson 7:

Reiterate concepts and ideas across multiple courses with increasing levels of complexity.

We cover ideas in several classes. This approach allows us to emphasize the universality of principles and help prevent the students' compartmentalization of ideas or skills between different courses and years. As an example, requiring students to enroll in Typography I and Graphic Design II concurrently allows us to address principles of form, visual hierarchy, and conceptual development in both courses while placing emphasis on the different methods of delivering information. This methodology is applied across semesters as well.

The top row shows exploration of form through a symbol set in Graphic Design II on the left and through a typographic illustration of meaning in Typography I on the right

In the second row, the exploration of hierarchy using only typography from Typography I is seen on the left while examples utilizing both type and image Graphic Design II are seen on the right.

Lesson 8:

Students live up to high expectations.

On the first day of Graphic Design I the grading rationale is discussed. In the classic academic scale, a "C" means a student completed an assignment adequately, a "B" means they did well, and an "A" is an honors grade reserved for truly outstanding work. Grades need to be earned. While this may seem obvious, it can be news to students. And this grading scale forces students to work. Suddenly, they realize that missed details can have a repercussion and that just finishing a project isn't enough. After only one or two projects where they have been graded down for a smudged line, an unbalanced composition, sloppy use of Illustrator, or a late final print, students that care about their education (or their grades) become fanatics about perfecting their work. The caveat is that students that are not motivated will fail, but, in our view, failing a college course and realizing you are not a good fit for a discipline is far kinder than realizing you are not a good fit for a discipline because you can't find a job due to a weak portfolio. For the students that are able to internalize this expectation of excellence, their work usually becomes increasingly sophisticated and well executed.
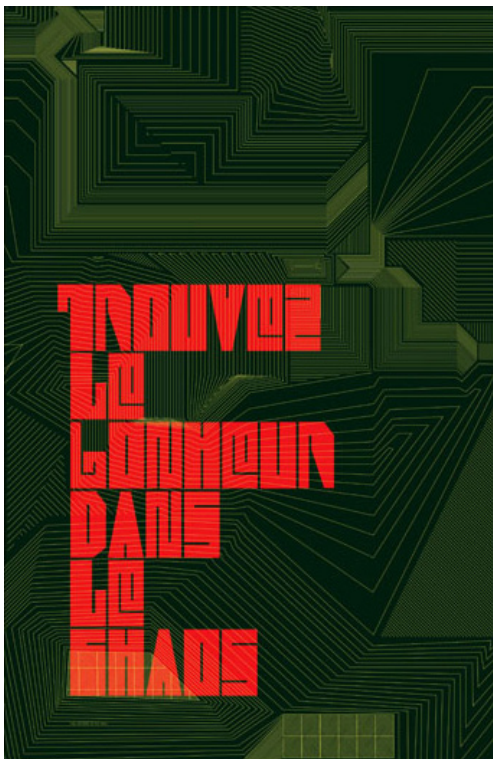
Upper right: repackaging of allergy medicine as a gum and of pre-cut papaya from Graphic Design IV

Lower left: an Anti-Cliché Holiday poster from Typography III

Lower right: two images of a vegetarian cookbook from Typography II

Lesson 9:

Allow students to learn from one another as peers.

We have built a many opportunities for collaborative work into upper level courses. We have learned through observation and experience that students often learn as much from each other as classroom instruction. In some cases, students are given set projects and asked to respond by creating solutions together so they can experience the difficult reality of collaboration in professional practice within the low-risk confines of the academic studio. They are required to develop a schedule, write design briefs, allocate tasks, create and execute deliverables, and write about the whole process as a team. This approach has proven particularly effective when we, the instructors, assign groups where the student's skills and weaknesses complement each other. We have seen such arrangements yield particularly good design results, and more importantly, overwhelmingly positive personal experiences with the process.

In other projects, we give students complex topics and challenges that require them to work together to restate and define the project briefs, thereby shaping the class. This practice comes from the philosophy behind open-sourced thinking and the idea of the collective conscious. Junior and Senior level courses become more democratic in structure and allow students to struggle through the design process together and ultimately succeed.

Course Descriptions

ARTS 260: Graphic Design I

Course Objectives: To apply formal design principles to problem-solving for visual communication; to gain a basic understanding of typographic vocabulary and form as well as the balance and rhythm of those forms; to introduce students to historical examples of typographic design; to master use of basic analogue materials, hone hand-skills, and become skilled in the use of Adobe Illustrator to create form with exacting detail; to reflect upon and communicate the ideation and design process; to gain a working knowledge of perceptual theory and how it may be used to create and organize design.

Course Rationale: Graphic Design I acts a transition from foundations courses to the design curriculum. It focuses on the process of design and its application to problem solving, using practice and experimentation to help students master the fundamentals of graphic design. It focuses on the use of form in typography and in the creation of stylized or symbolic representation.

ARTS 261: Graphic Design II

Course Objectives: To obtain the ability to further refine form and an understanding of how to create formal systems; to visualize abstract ideas using text, image and form; to gain an understanding of how manipulation of color, form and image shape hierarchy of information and the interpretation of a piece by an intended audience; to introduce students to historical and contemporary examples of symbols systems, and color and visual representation of abstract concepts in design; to introduce students to the role of research and information in design creation; to gain a working knowledge of semiotic theory and to apply it to analyze design and create solutions; to gain further experience in the use of Adobe Illustrator to create form; to understand how Adobe Photoshop may be used in conjunction with Illustrator to edit and perfect images for linkage to other files through the Adobe Suite programs.

Course Rationale: Graphic Design II emphasizes the creation of symbolic form, the use of hierarchy and color in design, and formation of visual-verbal messages to communicate nuanced messages to an audience.

ARTS 365 Typography I

Course Objectives: This course is devoted to an in-depth study of the history and practice of typography, from micro to macro. Projects begin first with a study of the individual parts of letters and move outwards to a comprehensive understanding of the typographic process as it relates to art and design. Emphasis is placed on ordering information and establishing hierarchy within complex communicative systems. Students will be taught how to implement best typographic practices through the relevant tools and technologies including Adobe Illustrator and InDesign.

Course Rationale: Goal to teach students the subtleties and art of using text to solve communication problems. To introduce them to the study of typography.

ARTS 360 Graphic Design III

Course Objectives: To introduce students to the process of sequencing and organizing images and information across multiple platforms. To have students continue to work on their ability to solve communication problems. To explore communication of information through books, interaction. To introduce students to basic html and css to allow students to understand the principles of web design and prepare them to work with web designers.

Course Rationale: To introduce students to the complexities of solving communications problems through sequence. To provide students with an understanding of tools and technologies used in the creation, reproduction, and distribution of visual messages. these technologies include books, interfaces, and time based work.

ARTS 366 Typography II

Course Objectives: To organize sequential content in a logical manner that reflects the nature of the information and its use by an audience; To understand the balance and rhythm of groups of typographic forms; To understand how the modular grid may be used to organize large amounts of complex information across multiple spreads. To use principles of design, research, and understanding of audience to create and develop visual forms in response to communication problems; To gain a basic understanding of commercial printing output and the creation of designs anticipating such printing.

Course Rationale: Typography II expands the principles of hierarchy, information design, and best typographic practices established in Typography I and Graphic Design II. Sequence using elements of typographic rhythm, organization, and variation is addressed, allowing students to organize information over increasingly complex forms, from simple spreads, to a book, to a three-dimensional form. Students begin to understand how issues of output and technical production need to be anticipated and shape design solutions.

ARTS 361 Graphic Design IV

Course Objectives: To use analysis and definition of problems, research, and understanding of audience to develop design solutions; To further develop aesthetic and typographic choices for clarity, emotive content, and formal interest; To create design solutions that communicate ideas in a persuasive manner to specific design audiences; To gain greater experience in the use of design theory in generating and analyzing design solutions; To gain experience in developing design proposals and in work with a team to develop design solutions.

Course Rationale: Graphic Design IV places greater emphasis on the solving of communications problems in response to audience using research and information gathering. Students develop conceptual systems that function across multiple types of media. Students work in an increasingly self-directed manner, defining their own design problems and messages as well as their formal solutions according to their interpretation of a problem and its audience. Students gain experience creating design briefs and collaborating as a member of a creative team.

ARTH 371: Graphic Design History

Course Objectives: To gain an understanding of graphic design artifacts and movements from a range of perspectives, including formal design aspects, technical aspects and innovations, social/political/historical contexts, intended message and intended audience, and personal and cultural expression. To become familiar with different theories and philosophies of art and design as expressed in graphic design artifacts. To understand the relevance of the history of design education to contemporary art and design. To demonstrate understanding of design artifacts and relevant historical documents and interpret their meaning through writing and oral presentation.

Course Rationale: The Graphic Design History is an overview of the development of Graphic Design from the birth

ARTS 460: Graphic Design V

Course Objectives: This course focuses on providing students with a well balanced approach to the practice and theory of delivering a visual message. In this course student continue to work on identifying problems and create practical real world design proposals. Group work will continue to be implemented and students are expected to work productively as members of teams. The course continues to sharpen students ability to create and develop visual forms in response to communication problems. The design process of information gathering, analysis, generation of alternative solutions, prototyping, and implementation is continued to be stressed. This course will require students to use their previously acquired knowledge of design and typographic history and understanding of semiotic theory.

Course Rationale: This course is meant to expand a student's view of how design processes and methodologies can be implemented in a professional setting. It serves as an opportunity for students to continue to utilize all prior knowledge gained from department courses. It will allow students the chance to create and develop visual and conceptual form in response to communication problems. Students will be required to create sophisticated solutions showing evidence and understanding of the principles of visual organization/composition, information hierarchy, symbolic representation, typography, aesthetics and the construction of meaningful images.

ARTS 465: Typography III

Course Objectives: This course takes a holistic approach to learning the principles of typography. Typographic morphologies are explored through assignments built around the idea of permutations and the generation of alternative solutions. Experimentation and testing of the boundaries of typographic form and legibility are encouraged as students are invited to look at typography in new ways. Finally students learn to utilize experimentation by using their own built processes for real world applications. Work can include typography for installations, information design, motion design, printed materials, and typography for computer interfaces.

Course Rationale: The goal of this course is to expand students' working knowledge of typography so they can better solve communication problems and create sophisticated layouts that show a mastery of visual organization/composition, information hierarchy, symbolic representation, and the creation of harmonious text image compounds.

ARTS 469: Design Realities & Professional Practices

Course Objectives: This course acts as the capstone for the major. Fundamental practical issues of billing, commercial printing, and contracts are addressed. Students speak with practicing designers on the many different aspects of their professional career. This class also helps to prepare students to search and apply for jobs, offering students assistance in developing an application packet, portfolio, and web presence.

Course Rationale: The goal of this course is to provide students with a basic understanding of business practices and prepare them for a career within the profession. Through this course, students will be given the opportunity to reflect on their individual progress within the department. Students will be asked to show a mastery of all topics covered in the earlier classes through both physical form and conceptual models.

Lessons learned through the process of restructuring our curriculum

1. Recognize your strengths.

2. Hold onto what is important.

3. Learn to let go

4. Teach ideas, not just techniques or programs.

5. Process is important. And includes writing.

6.   Ideas and textbooks should be used in multiple classes.

7. Reiterate concepts and ideas across multiple courses with increasing levels of complexity.

8. Students live up to high expectations.

9. Allow students to learn from one another as peers.

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3.3 Curriculum that Creates Designers of the Future

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Abstract

As an applied art within the visual fine arts, the discipline of graphic design both suffers and benefits from the new technologies that propel changes in the consumer market and communication culture. Design curriculum must make changes accordingly in order to equip students with skills that, unlike other artistic disciplines, must grow and develop alongside new media. Not only does the software and hardware of graphic design change, but the mental strategies both utilized and taught must also transform. According to an article from the AIGA, some educators estimate that fifty percent of design graduates (graduating from their own B.A. and B.F.A. programs) quit design within a year after graduation.[1] Traditional curriculum that emphasizes good concept, layout and basic computer skills emerges as incomplete in a world of online communication. Today's designers must possess a vast array of skills that start with conceptual and computer skills but reach beyond that to the advanced strategies of multimedia. Can a design student create, manage, and execute an HTML email campaign effectively or address the needs of a social media initiative? Most importantly, can a design student strategize, conceptualize, collaborate, implement, execute and manage a creative process that involves multiple mediums? Through the use of multiple processes rather than the creative process alone, graphic design curriculum that teaches the strategic authorship of a creative brief, effective design for it, and the collaborative production of it, produces students who create visual messages across all mediums, transforming the term of Web or print designer into simply, designer. This paper will present course and project objectives, class assignments, and resulting student work in support of creating a graphic design curriculum that addresses emerging technologies and strategies.

1. Heller, Steven. "Too Many Grads or Too Few Competencies? The Design School Dilemma". 2005.

Curriculum that Creates Designers of the Future

Co-Authored by Jana C. Perez, M.A., M.F.A., Assistant Professor, Graphic Design
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As an applied art within the visual fine arts, the discipline of graphic design both suffers and benefits from the new technologies that propel changes in the consumer market and communication culture. Design curriculum must make changes accordingly in order to equip students with skills that, unlike other artistic disciplines, must grow and develop alongside new media. Not only does the software and hardware of graphic design change, but the mental strategies both utilized and taught must also transform. According to an article from the AIGA, some educators estimate that fifty percent of design graduates (graduating from their own B.A. and B.F.A. programs) quit design within a year after graduation (Heller, "Too Many Grads or Too Few Competencies? The Design School Dilemma"). Design students entering the marketplace must have skills above what was expected a mere two years ago, and the competencies of the "Designer of 2015" as defined by the AIGA include "the ability to collaborate productively in large interdisciplinary teams" and "management and communication skills necessary to function productively" within them (AIGA, "Designer of 2015 Competencies"). Traditional curriculum that emphasizes good concept, layout and basic computer skills emerges as incomplete in a world of online communication. Today's designers must possess a vast array of skills that start with conceptual and computer skills but reach beyond that to the advanced strategies of multimedia. Can a design student create, manage, and execute an HTML email campaign effectively or address the needs of a social media initiative? Most importantly, can a design student strategize, conceptualize, collaborate, implement, execute and manage a creative process that involves multiple mediums? Through the use of multiple processes rather than the creative process alone, graphic design curriculum that teaches the strategic authorship of a creative brief, effective design for it, and the collaborative production of it, produces students who create visual messages across all mediums, transforming the term of web or print designer into simply, designer. This paper will present course and project objectives, class assignments, and resulting student work in support of creating a graphic design curriculum that addresses emerging technologies and strategies.

Several challenges, both constant and regulated, affect design program curriculum. First, the

technology surrounding visual communications changes so rapidly that each semester involves some type of change to course projects, student outcomes or a combination of both. Secondly, formal curriculum changes can require up to one year to complete a university's academic approval process. By the time curriculum has been approved, technology has changed again. Finally, state legislative or governing board decisions can also direct changes in outcomes or program goals in addition to funding. These factors not only affect the course objectives, but also the finances to purchase technology that mirrors the graphic design profession. How does a graphic design program continue to teach valuable design skills amid both constant and regulated change? This can be addressed with changes to the student learning objectives for either the course or for individual projects. Graphic design curriculum at Texas Woman's University focuses on key student skills of strategy, conceptualization, collaboration, implementation, and execution. These can be accomplished through three larger, broad objectives: eliminating silos or separation, fostering leadership opportunities, and creating interaction points.

First, eliminate the separation of media within curriculum. Design education should use a holistic mix of web, motion, typography, print and social. Today's companies are looking for "design thinkers" or designers who can solve problems in all media, not just print. Curriculum should not focus solely on one area and should not be separated into "print tracks" or "new media" tracks. David Butler, Vice President of Global Design, Coca-Cola, explained this concept in his talk at TEDxAtlanta, "We can't think in silos anymore. We can't solve problems in silos. So this sort of old way of thinking about consumers, and shoppers, and portfolios, in silos, just doesn't work anymore. We have to think horizontally. We have to think holistically" (Butler, "TEDxAtlanta Videos David Butler"). Design students should face each design problem seeking the best solution to communicate with the viewer using a full palette of media. In order to do this, students must understand the design capabilities of each, early in the education process. Programming skills are not necessary for successful holistic design thinking, but a basic knowledge of coding and language can prove beneficial. However, students should fully understand the logistics, architecture and communication possibilities of each current media form. Chris Anderson of *Wired* Magazine speaks about using the same designers across media platforms in a recent overview of *Wired's* collaboration with Adobe for publication on the iPad, "The content was created in Adobe InDesign, as is the case for the print magazine, with the same designers adding interactive elements, from photo galleries

and video to animations, along with adapting the designs so it looks great in both portrait and landscape orientation. This is a departure from the usual web model, where a different team repurposes magazine content into HTML, unavoidably losing much of the visual context in the process" (Anderson, "The Wired Tablet App: A Demonstration"). This is an example of the type of skills and the type of designer that curriculum should build today– those who practice the graphic design discipline in a holistic manner.

Secondly, curriculum should teach ways to be design leaders. David Sherwin, principle designer at frog design, an over 1,000 member interdisciplinary San Francisco firm with clients such as Disney, GE, HP and Intel, exclaims, "Design leaders make awesome s*@% happen… A leader knows how to push, coax, cajole, and otherwise conjure that level of work out of themselves and their team" (Sherwin, "Becoming a Design Leader"). Sherwin goes on to point out many qualities of design leaders and sums these into three major directives; learn how to direct a team, how to frame a complicated problem, and how to present effectively. Design leadership encompasses working in teams, managing peers, taking initiative and eliminating the expectation of someone else's direction at every critical point. From an educator's perspective, this involves "being comfortable in the struggle". Instructors should not provide all of the answers but provide the scope and parameters of an assignment and allow the student to actively problem-solve. Students as future designers working with programmers, architects, scientists, and more should have skills that empower clear communication, exercise concentrated problem solving, and require the use of individual skills in a confident and professional manner to achieve a group goal. With this in mind, presentation remains essential in the graphic design classroom. Companies will look to a design leader to help deliver marketing goals in a variety of visual forms.

Third, coursework should create interaction points of all types, both within the college, local, regional and national community. This includes bringing students to design pro-centric functions (such as AIGA events or regional design conferences) or presenting podcasts or videos of designers discussing profound changes in the visual communication market. It includes inviting design and business professionals to lecture and establishing a group of advisors for design programs. Additionally, curriculum can be used to engage business and community through service learning and in conjunction with this, implementing groups of students working together. Coursework that requires or offers a semester of internship or cooperative education for course credit not only builds professional practice skills but also

opens networking connections and opportunities. Incorporating "mock interviews" or alumni portfolio reviews into a course also builds community among current students and employers. As a second part to this third objective, encourage students to actively network with professionals by establishing student groups. The groups should be self-managed and administered by students but moderated by a professor. Groups should be focused on bridging the gap between education and the profession and will aid students in actively promoting themselves, connecting to a professional network and determining future career choices as well as opportunities. Students gain confidence in skills of professional relationship-building and idea presentation. All of these actions build a community of future designers nurtured by a collaborative spirit.

The final pages of this paper feature a listing and graphics that showcase a few examples of course project problems and resulting student solutions from Texas Woman's University, undergraduate graphic design curriculum that incorporate the objectives outlined above. Each example provides the course number, title, project description or problem, and solutions with corresponding images.

As a result of the adaptation of these objectives into curriculum, and in relation to the earlier point by the AIGA citing a less than fifty percent retention rate in the discipline one year after graduation, a rough estimate of students graduating with a BFA from the TWU graphic design program shows that 80% are not only still practicing graphic design or a related discipline one year later, but many continue to maintain a productive career four years later. This percentage includes students who have chosen another professional career unrelated to design, students who have chosen to stay at home to be full-time parents, and only includes a four-year time period. Further research and follow-up with each student could be completed to fully address and answer questions about student's career satisfaction, student's perception of the value of skills gained through the program's curriculum, and employer's opinions regarding graduate's success in design thinking and leadership. Additionally, assessments should be taken at the five-year period, as well as at longer intervals of time.

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2012 NATIONAL UCDA DESIGN EDUCATION SUMMIT / MAY 21, 2012

Texas Woman's University, Department of Visual Arts, Graphic Design Program

Listing of Course Projects

1. ART 4283 Design III: Interactive Design, Project title: Child's Own Studio

Problem: Child's Own Studio www.childsown.com is an e-commerce site that sells custom stuffed toys designed from children's drawings. While the concept for this business is whimsical and original, the website fails to communicate a feeling of whimsy or even of youth.

Solution: Students proposes a website redesign to appropriately brand this business and to streamline its e-commerce transactions.

2. ART 4283 Design III: Interactive Design, Project title: FreeRice.com

Problem: Why is this website needed? 925 million people are hungry globally which is the equivalent of three times the United States population going to bed hungry every night. Freerice.com is a website started in 2007 that is vying to end word hunger by donating rice through the World Food Program. The concept is simple—play an easy vocabulary game and each time you answer a question correctly, ten grains of rice are donated.

Solution: What purpose will the creation of the website fulfill? The website's redesign will captivate a new generation of younger audiences who are willing and able to donate. With correct timing, this website will target the latest wave of viewers who utilize social media and technology to engage with global causes.
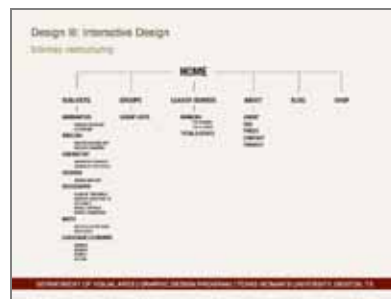
3. ART 4253 Design II: Publication Design, Project title: iPad Publication

Problem: Moving forward from research of online publications, students analyzed ways to expand a publication's brand and mission onto the iPad. What complimentary purpose could this application bring to your publication? What can this publication do that would entice viewers to purchase it and even purchase a subscription?

Solution: Students examined current iPad publications and utilized interactive navigation and interaction points to extend the concept of an original print magazine.

4. ART 4253 Design IV: Advertising Design, Project title: TWU Institute for Women's Health

Problem: Using a very small budget, devise a campaign to bring people from both the campus and local community into the Institute for Women's Health for physical evaluations and nutrition testing that is free to students and discounted to the community.

Solution: Students were grouped into "agencies" with various roles such as creative director, designer, and presentation guru determined by the instructor. Students created a website update, poster campaign and table tents for placement in the student union, across campus and at local community centers.
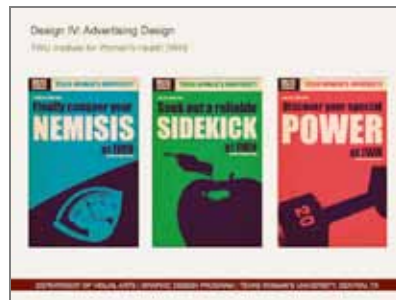
5. ART 4253 Design IV: Advertising Design, Project title: Denton Community Center [DCT]

Problem: Denton Community Theater has a messy, confusing web presence that does not communicate benefits and programs of DCT which include two locations (Denton Campus Theater, Black Box Theater), school programs, and the theater performers that make up the organization located in historic downtown.

Solutions: Student "agencies" created a variety of solutions including a re-design of the website, expansion to a YouTube Channel and Facebook, "guerilla" style spray on sidewalks and buildings and a smart phone app that allowed ticket purchase.

6. ART 4253 Design IV: Advertising Design, Project title: TWU School of the Arts [SOA] Calendar

Problem: The SOA Calendar design is dated and has been in use for over three years. The format uses too many photographs that were a challenge for departments to keep current and does not generate enough interest from or interaction with students. The new design should invite interaction, be able to fit into a pocket or purse, be able to be mailed, and use the SOA's 2012-13 theme or "ignite through art".

Solution: The new SOA calendar design is a large, mail-able poster with a perforated, tear-off calendar that fits into a pocket. Two designs per semester will be used and be collectable to make a larger poster using all four designs.

7. ART 4303 Senior Design Project, Project title: Alliance for Children

Problem: How can the facts of child abuse, an uncomfortable but crucial topic, be communicated in a way that engages viewers and elicits volunteerism and donations?

Solution: Student designed a small, personal, accordion fold brochure that when unfolded vertically, features a brightly colored info graphic of child abuse statistics built around the concept of a playground. The brochure also includes information about the organization and ways to donate or volunteer.

8. ART 4303 Senior Design Project, Project title: "The Know" Campaign, Resource Center of Dallas

Problem: Not enough people in the GLBT community get tested for HIV, and therefore fail to get treatment early. The Resource Center of Dallas needed a way to encourage people to get tested by making it more attractive and create dialog around the often socially taboo topic of HIV.

Solution: Student created a campaign that encourages people to become a part of getting into "the know" and used an informational website and a white wristband featuring the words "I KNOW" to create a club or group of people who empowered themselves through testing.

4.1 TE@CH: Domesticating Technology in the Design Classroom

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Abstract

Our students are detaching, drifting in bottomless data far from the shores of a coherent design process. They are caught in a battle of Style vs. Substance with American devout to the former. Worse, design and communication technologies sensually promise Speed, Ease, Comfort, and Universality. As students absorb the ideals of physically removed communication, their connection to education institutions recedes. Parallel beliefs have emerged that technology can be self-taught and that information is an assumed commodity. The ability to Find replaces the capacity to Know. Put together with an increasingly consumerist approach to higher education, students are inclined to treat Design as directly equatable with Technology, while class meetings become inconvenient. We profile side effects such as a decline in presentness, an inability to think physically, unoriginality, difficulty in contextualizing media and technologies, and the devaluing of group learning. Without a command of media and technology literacy, design education is reduced to a temporary requirement for workforce "cogdom."

Starting with Neil Postman's link of Technopoly to education, we apply his principles to collegiate art and design programs by weaving together concerns raised by Marshall McLuhan, Cory Doctorow, Aldous Huxley, Ted Kaczynski, and Maryanne Wolfe.

We propose structural shifts in departmental foundations programs and new priorities in deploying faculty resources to respond to the disconcerting inversion of Style vs. Substance seen in our students' subservient relationship to technology in creating work. Modern design students enter school with an increasingly emotionally detached relationship to their work, tools, and school. In response, we argue for an emphasis on a liberal arts emphasis on context, art and design history that includes contemporary work, open-ended experimentation, environments encouraging interdisciplinary dialogue, foundations level projects that link technology to contemporary issues and physical work, collaboration, writing as a design process, and mechanisms that promote Play and Apprenticeship.

TE@CH : Domesticating Technology in the Design Classroom

by RAS+E [The Ryan Shelley & Elizabeth Herrmann Design Collaborative]

A I STYLE VS. SUBSTANCE

Stefan Sagmeister nailed style with a fart and we mean him only respect when we say it is his most important contribution to Design. Joseph Heller's Catch 22 dissected a soldier's experience with wit, the kind of black humor that absorbs all light and leaves nobody laughing. It has verbal Style in spades, cigarettes, and deathquirks; and in the end, how else can you critique senseless slaughter save through quirk? Hell is too universal and too absolute to be seen fresh except through irreverence. Style = Fart. But Catch 22 is more machine gun in a dress than dress in a machine gun. Vonnegut solved the same problem with pornstars in an alien zoo, just for context.

Speechgate was named after Watergate, the scandal that led to the resignation of President Richard Nixon after the press learned of his administration's direct involvement with a break-in at the Democratic National Committee headquarters. President Obama's scheduling of a televised speech in an overlapping time slot with an early Republican Presidential Debate was named "Speechgate" by the American press acting as the public's watchdog in defense against the abuse of Federal power. The travesty was resolved abruptly upon a request by the Republican Party for the President to reschedule. He immediately did so. Jon Stewart summarized the ensuing White House Press Conference on the evening's *Daily Show* broadcast: "There were 23 questions about the scheduling of the speech, 9 about its content. So, at approximately 11pm, we are happy to announce, the incumbent Style thumps also ran Substance, 72% to 28%. I'm sure Substance will concede at some point, but nobody gives a fuck what Substance has to say."

B | NOISE

1. "White once wrote a song called This Protector*, about rescuing traditions from the march of progress. In a way, that's what* Third Man is*—21st-century monks of Kells, defending the catacombs against the digital horde."—*Jack Outside the Box*, by Josh Eells.*

TE@CH   2   RAS+E

For contrast, *Catch 22* and *Slaughterhouse-Five* are exquisite intersections of sweat and shadow, Substance fucking Style, the latter feeding the other's blood rush. Or Dwight Garner taking the analogy into technology in *The Way We Read Now*, "My wife tucks her phone into her bra, on long walks, and listens to Dickens novels. I find this unbearably sexy."

We have opened eight classes with the Stewart clip. After each instance, we ask, "Why are we starting the class with this?" Dead air. "How does this apply to design?" Deader air. "Ok, which should you focus on in your work, Style or Substance?" A tentative hand goes up, "Style?"

This is a true story. Repeatedly.

The less Substance in a piece, the easier it is to create. We have a generation of students who thinks technology IS design, who considers Style the defining element of work and consequently considers design education as a checklist. "If you select this option here and click on this box here, then _____ will wiggle. Wiggle and glow. If it wiggles and glows then you've made it function. If it functions, that means you know how to make it wiggle and glow, and that means you get an A." This thought train, the way many contemporary collegiate design students link technology to work in an inversion of the necessary Style / Substance relationship, must change.

2. Turn Left onto Tremont.

Ivan Chermayeff, perhaps the biggest name in identity design argues in favor of Substance: "This is an idea based business as far as we are concerned. If it's trendy and looks nice, if you put flashy effects or whatever around a word, that's not an idea that's just copycat nonsense and it looks like it. For us it's not a question of what sells, it's a question of what works." If any contemporary designer's work is timeless, it's Chermayeff's.

There are two perspectives on design Style: designers are chosen for the style of their work, or chosen for the way they think about work. Call the second option Substance, call it process, call it concept. "FOX" swivels, intermittently spewing forth Republican Debate™ stars and stripes at each commercial break. Because After Effects is available to all, Comedy Central achieves the same thing for Jon Stewart and Stephen Colbert. One is Substance and one is Style; same technology, different message. As Ellen Lupton would say, "Your software is showing."

Showing what?

3. A contemporary discussion of technology in the design classroom begins with the moment a professor gazes across the distracted eyes fronting eager young minds hungrily eye-humping a different screen than the one behind the lecturer. The screen behind might feature nudity stretched to the scale of a schoolhouse story, but the thumbnail-links of winks and plastic cups and windshieldsunglasses sliding in the Facebook Blue Sea are just Interesting. That's technology in the design classroom, but clearly not all is created equal; projectors, desktops, Adobe, socialish media. Cell phone drop-boxes and a policy on screen power buttons might help, but the $45,000 design lectures and mammoth posters, paintings, and pubic photos are Boring.

4. We're standing behind a projector and in front of a vinyl screen with an image of William Morris. A student chooses to face a lab computer and log into Facebook. For those who weren't listening, the Arts & Crafts Movement aimed to bring Art into Life. A click of the mouse and an image of the Bauhaus appears. Delete any auditory assimilations of noisy slide projectors and undivided attention. Laszlo Moholy-Nagy, Constructivist and Instructor, pushed humanism with the framework of an industrial society. A cell phone vibrates.

TE@CH   4   RAS+E

Godfather of Posters, Toulouse-Lautrec argued against treating tech as an ends unto itself: "In our time there are many artists who do something because it is new; they see their value and their justification in this newness. They are deceiving themselves; novelty is seldom the essential. This has to do with one thing only; making a subject better from its intrinsic nature."

Sure, you can wash your hair in the amount of information publicly disrobing across your (and everyone else's) screens, but with all platforms of dissemination, what's the point if there is nothing to say? Or as Bill Cosby discussed with an enthused drug-user:

"What is it about cocaine that makes it so wonderful?"
"Well, it intensifies your personality."
"Yes, but what if you're an asshole?"

All dressed up with nowhere to go.

Lady Gaga.

Our students, "Can you show us examples of student work?"
Us, "No."
Our students, "What are you looking for?"
Us, "We want you to think."
Our students, "Can you show us an example of that?"

Carolee Schneemann pulled a script out of her crotch and read it to her audience. In *Merzbau*, Kurt Schwitters transformed his home into a planar puzzle. Max Miedinger gave us Helvetica. Adobe gave us the Healing Brush. Step 1: Identify the Message. Step 2: Identify the most appropriate Distribution. Step 3: Push Distribution as far as possible. The question is always, "Why?" If technology has taken the role of Style in its debate with Substance in the minds of students, a point we will return to later, then software becomes its own medium. It is not really our student's fault for the confusion. They got the idea from Culture.

Neil Postman argues in *Technopoly* that this is a uniquely American view of technology: "Culture seeks its authorization in technology, finds its satisfactions in technologic and takes its orders from technology."

5. Killing Yourself to Live*, a book whose cover fashions a swanky electric guitar as headstone and designed by Paul Sahre, is an American cross-country drug-trip in morbid curiosity of Rockstar Demise: Why is death the greatest career move for a musician? From his Ford Taurus, media critic Chuck Klosterman explains Americans' incessant thirst for information: "Every summer, Hollywood movie studios convince millions of people to see blockbuster movies they know they're going to hate. Every day, shows like Access Hollywood force 2 million housewives to ask themselves, 'Who really cares who Lindsay Lohan is dating?' And you know what the answer to that question is. Almost no one. There are very few Americans who honestly care who Lindsay Lohan is dating. But it's still information they need to have. This is because those people care about something else entirely; they're worried about the possibility of everyone else understanding something that they're missing. This is what they're afraid of, and this is how they deduce societal truth."*

TE@CH   6   RAS+E

Tying Technology as Style to Technology as culture traces a student's thought process toward Substanceless design. We're not decanting the eggs in the alien zoo by discussing whether designers should have styles. Rather, we point out that *Catch 22* and *Slaughterhouse-Five* critiqued War with banana cream pies stuffed with stomach acid. Consider a contemporary design trend: when we think of propaganda posters, we think of a certain stylization and heroic icons, and we don't think of this propaganda / style / war / design relationship unkindly. We are quicker to link the words Propaganda and Art than Propaganda and anything negative. Such as banana cream pies filled with stomach acid. But Joseph Heller thought of it. The truth is, we LIKE propaganda art. We LIKE the swastika (right, Fairey?). Propaganda with a distinct style makes us hornier than the caged chaps doing pornstars on a distant moon. But what is the point of media if you have nothing to say with it?

The trouble is, to a student presented with Technology, everything looks like Style.

The trouble is, students have access to all the information they could ever choke down. At a recent lecture by Information Designer Jer Thorpe, a student criticized the design curriculum: "We are taught how to make information pretty, but we're not taught how to understand it." The trouble is, all information gets reduced to Style when it has no context. Especially when the most prized information is "How To" (Tech).

6. 15 seconds, 25 yards. Beep. Beep. Beep. Tick. Buzz. Ding!

We got here, this paralytic state of being unable to determine when information is relevant, of being addicted to something that children's programming labeled "POWER," in part because of a consumerist approach to college education. Perhaps more unfortunately, while college structures scramble to add faculty literate in new technologies, contextualizing all the digital noise has been less occurrent. In many cases, it's a question of mediums. The areas surrounding digital art and graphic design expand and blur. Applied arts. Interactive. Animation. Motion. In the rush to cover areas of Emerging Technologies, design education has introduced interdisciplinary majors, hired faculty for their tech expertise, and restructured Foundation programs to handle software to free up time in higher level design courses so that students can actually produce work. The problem is, there is an industry hiring boom despite a bleakly competitive design economy for young designers who know the tech and can demonstrate their ability to work with others and work from a content-first perspective. This leaves fewer options for finding faculty. Out of eagerness / desperation, students are clamoring to learn software and schools are obliging. But by allocating so much class time for tech, and because faculty are hired for their software expertise, students are climbing through fractured programs without learning about the cultural and historical contexts for the information and tech they take for granted. Worse, the role of quality artwork is relegated to the second tier, alongside the role of community, collaboration, and even faculty and design school as a concept.

We are raising a generation of designers who think technology IS content.

Perhaps the best example of a genre with a learning curve due to technology is Interactive Design, which requires coding. In order to make a box appear on screen, designers need to speak a foreign language. Without integrating interactive

7. "Another fun trick Hollywood likes to use is trying to woo critics with free screenings, food, set visits, and other goodies. The people who take the bait are called QUOTE WHORES. If your film needs a good review, they're there to give it. One of the most infamous is a critic named Earl Dittman, who is the film critic for a publication called Wireless Magazine. *You've probably never heard of Wireless, and that's because they apparently have zero subscribers and no web presence, and yet that doesn't stop film studio marketing departments from using his blurbs like they're gold."*—6 Things the Film Industry Doesn't Want You to Know About*, by Ashe Cantrell.*

8. In the information blur, SEO is all the acronym you need for believable noise.

principles into foundation curriculums, students confuse "code" for "communication." While much help is available online regarding coding, the Lynda philosophy does not translate as well as with straight software tutorials. With students seeing the path to employment as having more to do with the tech itself than with what they actually create with it, teaching interactive theory and principles becomes borderline impossible due to its massive amount of ever-changing languages, mountainous learning curve, and disinterest in any sort of theory on the side of students. Job postings for Interactive Design Faculty include a list of programming capabilities, a skill set traditionally reserved for Computer Science Faculty, despite the fact that the tech side of Interactive is expanding rapidly, allowing designers and programmers to fill two separate (but closely knit) roles.

The point is, if college design curriculums treat technical mastery as an end unto itself, the culture will lose the ability to dissect, appreciate, or produce quality design. Teaching students theory, historical context, and contemporary cultural facets of what they're doing is an imperative. How we build websites is less important than considering what design decisions make a Mail Art piece particularly successful or unsuccessful. Understanding Interactivity has as much of a conceptual learning curve as does utilizing Time; the conceptual learning curve of Interactive is as great as its technical learning curve.

Speaking of Vonnegut, Style, and pornstars, media critic Chuck Klosterman discussed the trend toward Real People in porn. Fantasy is apparently too fantastical when the moaners blur the line between "Creepy" and "Sensual." The stereotypical pornstar look is under fire as much as under knives, because it's all style and no substance. And when we're talking about style, we're talking about how to launch shootingglittermilkywaystars.

* The number one request from our students is to teach tech. After the first project grades are posted on ~~Blackboard~~, the number one threat from our students is to give them an A. These expectations mirror design students' relationship with technology. When we polled students at the start of Time-Based Design this past semester about their expectations for the class, their definitive answer was "After Effects." When we asked what they wanted from the class, they said, "After Effects." When I asked, "Why?", they responded, "because we want to get a job." ("Paid" rhymes with "laid.")

Deposit $100,000, get an in-person software tutorial, receive diploma / job.

Our students did not see the end point as creating good work. In their mind, jobs are given to whoever knows After Effects the best, as opposed to who has the most engaging, interesting, or diverse portfolio. For context, I taught myself After Effects. I refined my use of the software through practice, free online references, and conversations with neighboring peers while I worked. In equation form, this means my students are uninterested in making work and expect to be rewarded for software mastery alone. Suddenly, grade inflation makes sense. And with a hammer to the chest cavity, I realize that if my students' perceptions of the role of design education is accurate, I am useless as a teacher, and Technology Is Design.

9. "The telegraph removed space as an inevitable constraint on the movement of information, and for the first time, transportation and communication were disengaged from each other. In the United States, the telegraph erased state lines, collapsed regions, and by wrapping the continent in an information grid, created the possibility of a unified nation-state. But more than this, telegraphy created the idea of context-free information—that is, the idea that the value of information need not be tied to any function it might serve in social and political decision making and action. The telegraph made information into a commodity, a 'thing' that could be bought and sold irrespective of its uses or meaning."—Technopoly, *by Neil Postman.*

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A few points about the dependence and assumptions on the part of students working in computer-based design: While these technologies are not intrinsically bad, they do encourage a certain sort of machine-fed output. Design critic Wendy Richmond shrugs off design decisions that historically did not rely on computers as an effort to avoid "the computer look." In an effort to stand out in a sea of Auto and digital noise, designers sometimes stylize work to imply the presence of The Real and The Human. In this case, technology breeds Style as a simulacrum of physicality, without requiring the problem solving of merging form and content. Or, in a story more Dickean, than Philip himself, Klosterman wrote in *Killing Yourself to Live* about technology versus reality: "There was a time when Quincy couldn't sleep unless she heard rain: Every night in her apartment, she would put on her pajamas and slip one of this honkey 'thunderstorm' CDs into her stereo, and the fake rain would fall for hours and hours on repeat. Even when it was actually raining, she would play that ridiculous thunderstorm disc. 'This is crazy,' I would say. 'This is like bringing a Walkman into a rock concert. Let's just listen to the rain for real.' My argument always failed. 'It's not the same,' she would say. 'The rain doesn't sound like rain. It's not rainy enough.' It was never rainy enough."

Often this Fake Physicality is chosen as a means to shortcutting process, and without process, ideas do not develop and mature. Style over Substance. Shortcutting process, the convenience and brevity afforded by Fake Physicality, encourages a decline in reading, writing, and thinking. In *Print is Dead*, Jeff Gomez argues, "Literature reading is fading as a meaningful activity, especially among younger people. If one believes that active and engaged readers lead richer intellectual lives than non-readers and that a well-read citizenry is essential to a vibrant democracy, the decline of literary reading calls for serious action."

Klosterman critiqued reading habits in *Sex, Drugs, and Cocoa Puffs*: "People who read newspapers apparently can't read newspapers…What people want, I am told, are shorter stories that never jump to a different page (stories that jump to different pages are apparently too confusing for people to follow although it certainly seems like people manage to comprehend books, which tend to spread over many, many, many pages). People also like graphics, especially pie graphs. Photographs are also profoundly important, even if it's just a photograph of someone standing in front of the T.G.I. Friday's they happen to manage. And don't forget about sky boxes! People desperately need 'sky boxes,' which are eye-catching charts that tell them about news stories hidden inside the same paper everyone assumes they don't want to read. HOWEVER, the one thing nobody wants is sentences, and they certainly don't want paragraphs. People despise paragraphs. Focus groups have proven this…What newspapers tried to do was make reading feel like watching TV. Logically, they should have tried to do the opposite; they should have started writing longer, more complex stories, and they should have tried to deliver all the things the broadcast medium does not have the capacity to offer."

When a culture is nurtured that rejects content, designers go for broke on Pretty. Autopilots approach design technology as an easy path to prettiness. My drum teacher would encourage me when I struggled by saying that "if it was easy, everybody could do it." Well, now everybody CAN do it. Chermayeff again: "Whilst on average it raises the level of quality greatly it also lowers it from the top end, because people rely on the computer too much and forget that it's really all about ideas." I do wonder how many students choose design because the tech makes it seem easy. Worse, the truth is that students reduce design to technology because that is their Culture, and it is the only one they know.

10. The idea of Information as Commodity is not new. Shamans, doctors, philosophers, and scribes have been both drafting and passing along spiritual, medical, and worldly advice for centuries. Highly respected individuals, such as these, narrowcasted a highly controlled body of information and standard to live by. The Bible does this. With the invention of the Gutenberg Printing Press in 1450, broadcast, or mass, media, opened up the possibility of educating an entire population, providing the means to disseminate ideas; hence religious tracts, Martin Luther, and the Protestant Reformation. Set in a futuristic society, The Giver*, by Lois Lowry, profiles a twelve-year-old boy named Jonas who is assigned the role of "Receiver of Memory." As Jonas receives memories regarding a time before "Sameness" from The Giver, and stores them for his society, Jonas understands the power of Knowledge and how his society functions on the premise that Ignorance facilitates Sedation by Happiness. Ignorance is blissish. But the effects of "not knowing" and "knowing too much" are similar and both situations are present in our students today because the flood of information is reducing to non-information. This refers to both proliferated useless information, as well as the drowned form of knowledge when the flood becomes a blur. With the surplus of "dotcomm" comes an epidemic inability to parse content. This manifests in the classroom situation described above and its source(s) include the clock, telegraph, personal computers, and internet. This manifests as addiction.*

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We will expand as we go. Ultimately, addressing the perceived and actual role of technology in design education is an attempt to undo the culture's inverse view of Style vs. Substance.

We offer a few principles regarding technology in design before we move forward: 1: Outdated communication technologies and mediums fall to the Artists, meaning pre-Internet mass communication design mediums are now Fine Art. 2: Design will split into Programmers and Formalists as tools evolve that enable designers to spend more time making and less time in the tech. 3: Software is not a medium.

C I ENTITLEMENT

"Education as War," coined Marshall McLuhan in *War and Peace in the Global Village*.

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From: ----
Sent: Friday, January 27, 2012 11:52 AM
To: Shelley, Ryan
Subject: Time Based Design
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Many of us were caught off guard with five projects because all of our other studios have been structured with three. Again, I'm not saying you have to follow that as you are obviously the teacher(s) and it is up to you. I just think it is important to acknowledge that this is a class of seniors who are used to a particular system, and you two came in and threw us an unexpected curveball.

Possibly the biggest complaint I have heard, is your system of grading on a C, as I'm sure you may have expected. I am aware that there is no department standard for grading and that the Chair is working on creating one, but until then you have every right to grade on this system. Again, this is an unexpected discomfort for many seniors who are in their final

semester and have greater expectations for themselves in terms of GPA because this is our last chance to control what number goes on our resume. We could debate how arbitrary that number is but as we discussed in the beginning of the semester, this is not an art school. ---- is a professionally based school and as important as our portfolios are to us, we also have more of a focus on GPA than MICA students. I say this based on experience I have with friends at MICA, not just because you went there. Maybe employers won't care about that number but I know for me personally, I created a goal for myself freshman year and I am planning on meeting that goal, unless I get a C.

Please let me know if you have any questions or comments so we can all meet in a happy middle ground.

Thanks,

(Please note that the email above has been edited for length, but we have attempted to maintain everything relevant to the spirit and intent of the sender.)

11. "Throughout his essay [Cory] Doctorow keeps a running list of all of the other things he has been doing while writing ('In the ten minutes since I have typed the first word in the paragraph above, I've checked my mail, deleted two spams, checked an image-sharing community I like,' etc.). His attention, like the attention of anyone who lives a wired, online life, has been shattered and now exits in a dozen places at once. Gone are the days when a writer like Proust worked in a cork-lined room in order to keep the sound of the world away from his ears (and his concentration). Kids now reading Doctorow, who will become the next generation of writers, will have been raised on computers, blogs, MP3s, RSS, iPods, MySpace and YouTube. The works they create will have this electronic DNA woven throughout them."—Print is Dead: Books in Our Digital Age, *by Jeff Gomez.*

Three weeks into class.

Not, "Ryan, do you have any suggestions about how to stain an image of Rachel Carson into snow? Do you think red food coloring will work? What I want to do is shoot time-lapsed photography of the skiers tearing through her face..."

Not, "Elizabeth, what do you think of the influx of Saul Bass as a revived aesthetic in posters and credits? Is it becoming abused? What if I really like it?"

The most in depth exchanges up to that point in class or by email dealt with grading, not with the quality of the piece being graded, how it could be improved, or about anything directly or indirectly related to design. The email above is from one of our "average" students, which is our point. Professors have always been providing a service, but it seems our relationship with those we teach is shifting toward something approximating a vending machine.

Healthy curiosity is replaced with Entitlement—in many cases, curiosity actually is driven somewhat by fear. We can discuss the necessary skills of dedication, experimentation, and work ethic that are required of any designer, but if graduation with flying honors is the achievement, then why *should* students care about WHAT they're studying? The United States economy would agree with them. Education stimulates the economy and beyond that, well. It's a good time to go to school, with employment being what it is and all. On our fourth class meeting of the semester, we entertained the requested (2 hour) grading pow wow with the students, partially out of our own curiosity. Albeit, all we remember from the session was one student's

12. Lullaby *disagrees with me.* Lullaby *argues that noise infiltrates like a virus. Chuck Palahniuk doesn't link information to addiction, he links it to disease. [Tell your grungy uncle to quit his sage nodding and listen to me]. This is imperative. This is life or death. In* Lullaby *land, information is "a plague you catch through your ears." Book cover designer Rodrigo Corral presciently warns readers ahead of time with a jacket juxtaposing digital-ish type, handwritten-ish type, and a dead bird. We can make enough noise to drive us mad. Sicken. Pollute / Kill. Corral's bird is neon yellow. You Will See. You Will Hear.* Lullaby *describes this SIEGE OF SOUND: "People who would never throw litter from their car will drive past you with their radio blaring. People who'd never blow cigar smoke at you in a crowded restaurant will bellow into their cell phone. They'll shout at each other across the space of a dinner plate…You turn up your music to hide the noise. Other people turn up their music to hide yours. You turn up yours again. Everyone buys a bigger stereo system. This is the arms race of sound. You don't win with a lot of treble. This isn't about quality. It's about volume. This isn't about music. This is about winning…These music-oholics. These calm-ophobics. No one wants to admit we're addicted to music. That's just not possible. No one's addicted to music and television and radio. We just need more of it, more channels, a larger screen, more volume. We can't bear to be without it, but no, nobody's addicted." So I was wrong; your uncle was right. This information overload, is an addiction. We've reduced Art to information, and information to a sickness.*

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immaculate comment afterward: "Are we done sharing our feelings now?"

Our primary concern here is a sort of college culture specific blindness in many design programs in which entitlement is so entrenched that the relevance of produced work disappears.

13. BEEP BEEP. Hold on. Stepometer: 576. You've got—HEY Alicia—The next train to Forest Hills is now—Chuck Palahnuik—>Detox—>Amazon—>Go.

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"'You are a foolish man,' Quincy would often tell me. 'You show up too early for everything. Don't you understand that when people say a party is starting at 9:00 they actually mean the guests are supposed to come at 10:00? That's just common sense.' I will never buy that logic. In America, parties that are supposed to start at 9:00 P.M. actually start at 10:00 P.M. However, rock concerts that are supposed to start at 9:00 P.M. don't begin until 9:09. Sporting events set for 9:00 P.M. begin at 9:05. However, television shows that are set for 9:00 P.M. do start at 9:00 P.M., unless they're being broadcast on TBS. So what's crazier: That I show up for things when they're supposed to begin, or that everyone else in the entire world has somehow come to accept that every activity operates within its own unspoken, individual schedule? How is everyone else's wrongness understood to be right?" asks Chuck Klosterman in *Killing Yourself to Live*.

The truth is, the specifics of a grading policy likely must evolve depending on the school and course. But we do wonder if the sense of entitlement brought on by a consumerist approach to education is manifesting somewhat combatively in many students. Like Klosterman's example, we question if the slow but steady march to a warped set of priorities in higher education is accepted as "normal" in spite of its wrongness, a question underneath the rest of the concerns raised in this section.

Since 2005, Claremont McKenna College in California has been falsifying its SAT scores in publications. The scandal should not be taken as a referendum on the ethics of colleges, but rather call into question whether technology can provide the best way to assess a design student's performance. Are standardized tests even remotely relevant to determining the quality of an educator, a department, or a portfolio? Creativity comes from a human place. But when students are used to computers determining quality, they struggle to accept a lone (human) voice telling them their work is "average."

14. "Epidemics behave in a very unusual and counterintuitive way. Think, for a moment, about an epidemic of measles in a kindergarten class. One child brings in the virus. It spreads to every other child in the class in a matter of days. And then, within a week or so, it completely dies out and none of the children will ever get measles again. That's typical behavior for epidemics: they can blow up and then die out really quickly, and even the smallest change—like one child with a virus—can get them started. My argument is that it is also the way that change often happens in the rest of the world…A meme is an idea that behaves like a virus—that moves through a population, taking hold in each person it infects…I'm saying, don't be surprised. This is the way social epidemics work."—The Tipping Point, *by Malcolm Gladwell.*

It can be a whiplash thing, carrying the crusade against grade inflation far into occupied territory. The crusader is suddenly alone and stunned, whiplashed. Taking up grades as a personal vendetta might be well intentioned, but the factors involved are at the broadest level of American economics. Boston University has aggressively sought quality teachers and with that, higher academic standards, in a request from students to shift attention away from cushy housing to quality courses, according to *The New York Times*' Daniel E Slotnik. But simply demanding a stringent standard for an A from one set of students will alienate single professors from their peers, administration, and especially students. Given the statistics surrounding grade inflation, there does not seem to be much point in the process. Instead of *harumphing* out more accurate marks in an effort to counterbalance the fact that nearly half of students in college courses get an A in the class, perhaps an entirely new emphasis is needed. Because of the abundance of high marks, employers and schools are deemphasizing their value in deciding between candidates. The causes of grade inflation tie back to the modern consumerist approach to college. At all costs, schools want their students to look good—which in turn reflects on the school. Students are paying for degrees and grades and schools are paying for faculty to keep their customers and customer's parents happy. Student reviews of faculty determine everything regarding the professors' employment, and the resulting leverage includes padded grades.

Catherine Rampell references several studies about the collegiate assessment process in her essay for *The New York Times*, *A History of College Grade Inflation.* "About 43 percent of all letter grades given [are] A's, an increase of 28 percentage points since 1960 and 12 percentage points since 1988. The distribution of B's has stayed relatively constant; the growing share of A's instead comes at the expense of a shrinking share of C's, D's and F's. In fact, only about 10 percent of grades awarded are D's and F's…By the end of the last decade, A's and B's represented 73 percent of all grades

awarded at public schools, and 86 percent of all grades awarded at private schools, according to the database compiled by Mr. Rojstaczer and Mr. Healy. (Mr. Rojstaczer is a former Duke geophysics professor, and Mr. Healy is a computer science professor at Furman University.)…The authors don't attribute steep grade inflation to higher-quality or harder-working students. In fact, one recent study found that students spend significantly less time studying today than they did in the past."

If our payouts for education involve rights regarding tangentials like mini-fridges, grades are absolutely anticipated. National statistics show that these expectations are realized. Administration encourages collagen-ed grades to up their students' employability, and faculty succumb to consumerist trends as well, with commentary from students used to establish their salaries and quickly broadcast to potentials and internal deciders. The truth is, regardless of a curve, if a C is average, it is reasonable to expect a class to produce as many D's as B's—the ras+e grading policy is that all assignments are weighted equally based on inventiveness, accuracy, and craft—and yet, we're young and cocky and we don't even try to get away with below average marks except in extreme (well documented) cases.

Here's where we are: the consumerist approach to college education unsurprisingly parallels trends in grade inflation. Just as $45,000 buys swanky dorms, it buys the right to treat them as personal diaries of alcohol-fueled indecencies. And A's, although that equation has some more variables.

15. Meme me. But don't meme your work. Stop trying to design for an epidemic; we should be trying to change the world. Designing an epidemic generates a lot of hits (bites) but it does not change anything, it's fully participatory in the status quo. A wave, but one that is part of an ocean's dull incessant eroding. "If we're adding to the noise / turn off this song," sings Switchfoot.

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A former boss in Residence Life remarked that, "In every conversation I have with a student's parents, I get the price of the school quoted to me." The perspective is that high tuition costs entitles students to relocate the former contents of their stomach to any location within the dorm bathrooms that they choose; they have purchased the right to treat their fellow residents and staff with impunity bordering malevolence.

A consumerist education means that a student deposits money and gets a diploma. Choose a flavor and reach into the dispensing tray. Many students extrapolate a point and expect a job for their deposit. College becomes less of an opportunity and more of a service. Instead of high grades or employment resulting from top-tier work, grades and employment are an expected result of a cash deposit. Marshall McLuhan goes so far as to claim that education bears resemblances to show business: "There was possibly a time when show biz was a bigger business than education. Today, education is not only by far the biggest business in the world, it is also becoming show biz." When professors are retained as the result of a popularity contest, they are forced to be entertaining and liked. Their expertise, inventiveness, experience, and ability to push students toward quality work is less important than how "cool" they are. At least quality entertainment implies a specific skill set (comedy is hard!) of the faculty member, but a worse indicator is to follow student wishes and focus education on technical mastery. This also makes students happy but at the expense of everything valuable about both design and education.

Neil Postman, asks America in *Technopoly*, "What do we believe education is for? The answers are discouraging, and one of them can be inferred from any television commercial urging the young to stay in school. The commercial will either imply or state explicitly that education will help the persevering student to get a good job. And that's it. Well, not quite. There

is also the idea that we educate ourselves to compete with the Japanese or the Germans in an economic struggle to be number one. Neither of these purposes is, to say the least grand or inspiring. The story each suggests is that the United States is not a culture but merely an economy, which is the last refuge of an exhausted philosophy of education. This belief, I might add, is precisely reflected in the President's Commission Report, A Nation at Risk, where you will find a definitive expression of the idea that education is an instrument of economic policy and of very little else." Our current political leaders certainly seem to view education exclusively as job training, emphasizing standardized tests as a means to gauge student, school, and teacher performance. We argue that these uses of technology manufacture short-sighted results similar to relying exclusively on student assessment to inform teacher selection. Ultimately, this entire system is fed by a culture in financial freefallpanic. Higher recession rates of unemployment mean that students have to compete with college degrees regardless of whether a job truly requires one. Pressure comes from frightened parents who view their financial sacrifice for college tuition as the sticker price of Superman's personal vetting of their child's insurance against unemployment.

A professor isn't something technology can buy. Insert quarter, receive Coke. A BFA isn't a Function of forty-thousand dollars a semester. Push lever, receive pellet. The sooner students realize that being a good student is irrelevant of being a good designer, the sooner students will realize that regurgitating software tutorials is not an asset of professorship, but rather a waste of everyone's time. As clarification, good study habits and dedication do matter, but it is entirely possible to spend lots of time and lots of money and produce rubbish. Hollywood would be full of tumbleweeds otherwise.

16. Maybe the ability to instantly know anything killed any interest in asking questions. Kings of Potential Kingdoms. These are our students. The model for bad parenting used to be the TV and American Eagle capitalized on it: KILL YOUR TV. Because of violence and premature titillation. Because Guns + Boobs = Mush. Because it makes for a cool tshirt graphic. Also, Starz. Brains turn off and then cannot be turned back on by the dim overtures of Pythagoras. Well, the Information Superhighway is funneling into young lobes and all the cars are driven by speeding, unheeding, drunk drivers. If the TV is a bad babysitter because viewers atrophy, unparsed information dumps are worse because Knowledge, the cornerstone of non-atrophied synaptic progress, is reduced to the level of a generic buzz. Ted Kaczynski writes, "The mass media are mostly under the control of large organizations that are integrated into the system. Anyone who has a little money can have something printed,or can distribute it on the Internet or in some such way, but what he has to say will be swamped by the vast volume of material put out by the media, hence it will have no practical effect."

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Tamar Lewin interviewed former Columbia professor, Dr. David Helfand, about his experiments with the education model: "Four or five years ago, I went to talk to the fourth graders at the Dalton School about the universe. They were transfixed, waving two hands in the air, saying, 'I have a question!' At the end, some of them had to be dragged out by their shirt collars for their next class…I took the bus back to Columbia, to the core science course I'd created, where we were going to be talking about a neuroscience article. The students were there, on time, prepared, but their expression was, 'In two hours, this class will be over.'…I looked at them and said, 'Why aren't you more like fourth graders?' It was a rhetorical question. One said, 'Fourth graders are curious and university freshmen by and large aren't.' One said, 'There's so much to learn, and it's all on Google anyway.' Another said, 'This is a seminar. Asking questions could be a sign of weakness. You can only ask questions in big lectures where you're anonymous.' The last person said, 'You have to understand, I'm paying for a degree, not an education.'" Because of the amount of money students spend on college, the expectations they have of themselves and the sense of responsibility they bear for the outcome of their own work and growth declines, while the responsibility they perceive on the part of everyone and everything else increases.

This apathy toward actual education directly impacts what students put into their work which impacts what they get out of their work. Catherine Rampel argues that grade inflation results in declining interest in Hard Work (or difficulties of any sort) on the part of students. And if students are not working as hard, especially outside of class when young designers are free to experiment away from the omnisciently shepherding eyes of faculty, potential employers are less likely to factor in academic performance when hiring, meaning portfolios matter even more. Design has always emphasized portfolios, but students who prioritize technical knowledge and spend less time outside of class producing work are, ironically, less hirable.

Graphic design is one big competition. In the classroom, peers are simultaneously allies and competitors. It's an easy concept to grasp and a challenge is the best leverage educators have on students to perform at their best, granted the focus is on landing work and being noticed. *If a classmate can out-perform you, it means you need to work harder, work louder.* When the common denominator is "the media as assailant," smart, quality work is obligatory. Consider work by Rodrigo Corral or Paul Sahre. Playing in a medium that's dying (book cover design) while contributing to the industry in a new way, keeping alive and functioning as an argument for a new relevance, requires solutions beyond a quick mass-market paperback with un-kerned type treatments and rainbow stripes in the corner. *Invisible Monsters, A Million Little Pieces, Sex Drugs and Cocoa Puffs.* Idea is everything. Craft is immaculate. Stressing the importance of pushing beyond Competency is imperative of students.

Our best students are often non-design majors, in part, because of their complete openness from the onset in the face of something new. Deciding to enroll in an art or design class and without being an art or design student overtly acknowledges a gap. Regardless of their reasons for enrolling in the class, whether it be out of credit obligation or a tangential interest to their major, non-design students accept the challenge and are way more open to listening, looking, working, and applying what they know from other disciplines to the field of design. And this is fantastic. This openness toward interdisciplinary thinking is progress in its own right. Good comedians are funny because they're intelligent, read lots of stuff, and understand timing, vernacular, and people. Good designers are very similar and that is because they view design as a medium to carry out the task of non self-congratulatory vacant pretty work. Needless to say, this intellectual approach to design and its process requires out of class thinking, repurposed perspective, and not to mention a lifestyle grounded in exposure and absorption.

The guise of technology's self-proclaimed "makes life easier" ploy is also culpable. Why draw something for real when you have a digital pencil tool? Drawing something by hand would add the additional steps of scanning in the image, fixing it with software, and keeping a leash on an extra set of files. Digital photography and typography eliminated a lot of physically stressful labor. In fact, many professors conduct final crits for assignments as purely digital file projection, even when the piece is intended for physical output. As Postman points out, the computer has bred an isolated individualistic classroom experience. Coupled with a decline in time physically spent in group settings, including studios and labs, peer-to-peer discussions are limited to cyber social media outlets and lacking a collaborative environment severely cuts into a healthy working ethic. The brevity of tech has instilled a false sense of effort and timeliness in design education.

Design Process must be emphasized in a design curriculum. Design Process is the How, the technique, a set of production-savvy and thinking-primed skill sets that condition brains and help designers do what they do. What students seem to miss is that before we get to How, we have to answer Why, then What. So many students want to jump right into the tech, or at least have the Why and What handed to them. The Why and What take time, take investigation, take thought, require process. Designers love process, however it's often lacking attention in schools. This includes simple tasks, such as using an X-acto blade, printready and saddle stitching, forcing cognitive connections to conceive and generate new forms, editing, and professional tasks like applying to grad school. A poster doesn't end at File—>Print. Met with frustration when process is not clear, expensive, or requires physical labor, students are deterred easily and lose interest in their work. MacGuyvering is perhaps the most helpful and enviable asset educators can instill in their students. Encouraging students to discover solutions using limited means, consulting references from their unique background, and working within strict

time-constraints builds a robust ability to respond to prompts in their future design jobs. And with physical outlets like Etsy, publishing competitions like Creative Quarterly, and student-run studios, assignments need not be limited to exercises, tutorials, or fake client work, the latter two having the potential to equate to giving Pavlov's dog chocolate.

How much is that dead doggie in the window?

24-hour upanddown design pieces are one of our specific interests. Especially at the foundations level, students benefit from a plethora of quick "do it, move on" types of projects rather than longer assignments that are revised and re-revised until students are beaten into submission. At this stage, students gain more experiencing a variety of mediums, processes, challenges, and research than is possible with picayune refinement. Developing a range of tools to aid in their process is better than learning how to be an expired (Best If Sold By) one trick pony. Holding the interest of our students requires educators to keep them on edge and sow anticipation. "Pick three intangibles," my undergraduate professor Dorian Angello told us on our first day of class. "Go ahead. Go get a coffee, take thirty, come back, and tell them to me." Thirty minutes later, our entire semester was a time-released shitty grin of unexpected Challenge. Later years can allow students develop and refine specific interests, and work should be revisited only after college and its personnel, physical, and technical resources are in the rearview mirror of post-graduation.

My gymnastics coach used to tell me practice doesn't make perfect: Practice perfect makes perfect.

So many students expect hard work, sheet protectors, emulation of the teacher's style, and perfect attendance to be acknowledged beyond what it's worth. The truth is, if the student does not show up or engage at class, the work inevitably suffers. Chuck Klosterman wrote about the cloying reward system of the computer game, The Sims: "The happiness of the characters is directly proportional to the shit you elect to buy them…This is the kind of shit that would prompt Tyler Durden to hit someone in the face." Unlike The Sims, process and output are not a simple one-to-one direct correlation in terms of success. Average work is irrelevant of effort. Students do not buy grades with effort. Course work is not supposed to be subservient to the machinations of the marketplace, meaning how I mark students should be based purely on the quality of the work. At a job, employees are paid based on performance of duties, but students' reward should be less about grades anyway, and more about the knowledge they gain and the quality of the things they make. What makes someone a good student is not what makes someone a good designer.

We tell our students the standard for a good reward system is when Paul Rand rises from his dirt nap and compares your work to a perfect rooster.

Though good students may work hard, the truth is, design is a work-driven field, and expecting something different is entitlement in action. This is always a tricky point to raise with students and it *is* beneficial for students to work hard. We try not to tell students that we do not care, especially at the grading level, whether they spend lots of time on a piece. But the truth is, we don't care; the work is everything.

Ted Kaczynski writes in *Industrial Society and Its Future*, "Education is no longer a simple affair of paddling a kid's behind when he doesn't know his lessons and patting him on the head when he does know them. It is becoming a scientific technique for controlling the child's development. Sylvan Learning Centers, for example, have had great success in motivating children to study, and psychological techniques are also used with more or less success in any conventional schools. 'Parenting' techniques that are taught to parents are designed to make children accept fundamental values of the system and behave in ways that the system finds desirable. 'Mental health' programs, 'intervention' techniques, psychotherapy and so forth are ostensibly designed to benefit individuals, but in practice they usually serve as methods for inducing individuals to think and behave as the system requires. (There is no contradiction here; an individual whose attitudes or behavior bring him into conflict with the system is up against a force that is too powerful for him to conquer or escape from, hence he is likely to suffer from stress, frustration, defeat. His path will be much easier if he thinks and behaves as the system requires. In that sense the system is acting for the benefit of the individual when it brainwashes him into conformity.)"

Contrast education as a system of conformity (or job training) with the maxim of the creative process: Art is all about making your own rules and then breaking them.

Good graphic designers learn how to break rules intelligently. The caveat being, of course, one needs to learn the rules before they can be broken. We tell our students it took Martin Venezky weeks to individually cut "A's" out of a newspaper for an AIGA poster, and if he wants a lens flare, he'll shoot hundreds of images of light until he finds the perfect one. Conversely, Paul Rand once came to a client meeting unprepared and at the last second found a button sitting on the seat

17. We have unlimited information. But what does it say? Not only might it be saying less, but we are losing the capacity to discern depth. Inattentional Blindness *is when all information is reduced to soundbites and everything complex becomes a gorilla on the basketball court.*

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of a taxi cab. He walked into the conference room, flicked the button onto the table and said, "This is your mark."

Idea is everything.

18. Discussing the impact of the Internet on thought, Nicholas Carr wrote in The Atlantic: "The Net seems to be chipping away my capacity for concentration and contemplation. My mind now expects to take in information the way the Net distributes it: in a swiftly moving stream of particles. Once I was a scuba diver in the sea of words. Now I zip along the surface like a guy on a Jet Ski. I'm not thinking the way I used to think. I can feel it most strongly when I'm reading. Immersing myself in a book or a lengthy article used to be easy. My mind would get caught up in the narrative or the turns of the argument, and I'd spend hours strolling through long stretches of prose. That's rarely the case anymore. Now my concentration often starts to drift after two or three pages. I get fidgety, lose the thread, begin looking for something else to do. I feel as if I'm always dragging my wayward brain back to the text. The deep reading that used to come naturally has become a struggle." An argument can be made that students are reading, especially Young Adult books, and writing extensively through text messages. We developed a new literacy. Great. But it killed an old literacy. "Technology giveth and technology taketh away," to quote Neil Postman. But it's not just that there are winners and losers amongst users of technology, it's that parts of culture are conceived at the expense of others. Skills and mediums are exiled, then killed. The question for design then: Are some of these dead things still important, maybe even more important than some new things? As it stands, the new literacy reads as Style over Substance. Design and College bear responsibility to nurture the Good of the New while also teaching the Good of the Old.

D I UNORIGINALITY

"The death of originality: A grim prospect, but then I remember something Louis Armstrong once said, after being asked to give his opinion on some very trite, badly orchestrated songs he'd just heard. He said something about how, even with the worst music, he could see God trying to shine through. I'm taking him up on that. Because even in the most derivative, repurposed, seemingly soulless music, the sweatiest film remake, and crassest TV show, there's got to be a human heart, trying to claw through its own mediocrity. And recognizing it, being able to see it, is where better art comes from. If James Joyce could link mythical heroics to a fart at the end of a night in the pub, then maybe someone will wrench great cinema from an iPad viewing of Count Chocula: The Movie," writes a hopeful Patton Oswalt in Build Your Castle in the Swamp.

The design process is not a checklist. The path to great work demands craft, but also innovation. While remixing is valid, educators must emphasize the value of original content, a seemingly impossible task considering a culture spawning staggeringly expensive and staggeringly derivative films as fast as possible. This is a counter-cultural idea. Robert Buley said, "If we have human operators subordinated to technology then we're going to lose creativity."

"Unoriginal" is one of those awful words, a dismissive hair flip (maybe caddied by an eye-roll) in the angst-ridden mind of the designer who slouches forward, brooding (and inventing) alone over a beer. "Derivative" is a little better; it's more open-ended. "Appropriation" has been an ongoing buzz topic in the arts but when students are unable to investigate a design problem and develop unique solutions, there is a glitch in their design process. It is a mistake to turn design education

into a checklist, something we hear our students asking for. Many of them see creation as something to be learned from a tutorials setup, as opposed to exploration. The most common question we get from students is, "What are you looking for?" This refers to both form and content. It is no exaggeration to say we are often startled when a student presents an engaging idea. Moreover, formal skills, typically honed through practice and repetition, are not explored outside of any step-by-step directions. Chuck Palahniuk: "All God does is watch us and kill us when we get boring. We must never, ever be boring." Sloppy work, unoriginal work, dull work; boring is the one unforgivable sin in the arts.

The artists are prophets. This is why the important artists don't shut up so easily. "As political and economic freedom diminishes, sexual freedom tends compensatingly to increase…In conjunction with the freedom to daydream under the influence of dope and movies and the radio, it will help to reconcile his subjects to the servitude which is their fate." In Aldous Huxley's *Brave New World,* the Controller insists further, "Stability. The primal and ultimate need. Stability. Hence all this."

The Sims is a strategic life simulation video game developed by Will Wright in early 2000. Allowing players to build, buy, and be, the game eventually ends in self destruction and combustion of purchases: damage control. That bored people are more interested in leading a simulated boring life is telling of a population that considers adultery a nightly routine. "[My six-year-old niece] Katie couldn't help but notice my ineptitude and immediately tried to show me how the game was played (and—inadvertently—how existence works, although I doubt she would have explained it that way)…Katie displayed amazing dexterity at The Sims, effortlessly building a home and furnishing it with a cornucopia of household goods she could never operate in reality. She then instructed me to find a job and to make friends with other Sim citizens, especially

19. According to Maryanne Wolf in How the Internet Affects Your Brain*, a developmental psychologist at Tufts University, "'We are not only what we read. We are how we read.' Wolf worries that the style of reading promoted by the Net, a style that puts 'efficiency' and 'immediacy' above all else, may be weakening our capacity for the kind of deep reading that emerged when an earlier technology, the printing press, made long and complex works of prose commonplace. When we read online, she says, we tend to become 'mere decoders of information.' Our ability to interpret text, to make the rich mental connections that form when we read deeply and without distraction, remains largely disengaged. Deep reading, as Maryanne Wolf argues, is indistinguishable from deep thinking."* We refer to this as power browsing. *"Reading," explains Wolf in* How the Internet Affects Your Brain*, "is not an instinctive skill for human beings. It's not etched into our genes the way speech is. We have to teach our minds how to translate the symbolic characters we see into the language we understand. And the media or other technologies we use in learning and practicing the craft of reading play an important part in shaping the neural circuits inside our brains. Experiments demonstrate that readers of ideograms, such as the Chinese, develop a mental circuitry for reading that is very different from the circuitry found in those of us whose written language employs an alphabet. The variations extend across many regions of the brain, including those that govern such essential cognitive functions as memory and the interpretation of visual and auditory stimuli. We can expect as well that the circuits woven by our use of the Net will be different from those woven by our reading of books and other printed works."*

the female ones (this is somewhat predictable, as Katie profoundly enjoys asking me if I have a girlfriend). However, I immediately had dozens of questions for young Katie about my new life: If I don't yet have a job, how could I afford this residence? Who put all that food in my fridge? Elves, perhaps? Can I trust them? Why don't I need a car? Where did I go to college? Don't I have any old friends I could call for moral support? This is not my beautiful house. This is not my beautiful wife. Well, how did I get here? Unlike David Byrne, these questions did not interest Katie. 'You just live here,' she said. 'That's the way it is.' But where did I get all this money? 'You just have money.' But where did I come from? 'Nobody knows. You're just here.' Am I one of the 55 million Americans living without health insurance? 'Be Quiet! You won't get sick.' This went on for several minutes, finally ending in a stalemate when Katie realized warm cookies were suddenly available in the kitchen…When playing with real-world toys, there's no limit to the back story Katie will create for anything, animate or inanimate. That's how little kids are. But somehow it's different when life is constructed on a sixteen-inch screen; in the world of The Sims, Katie won't color outside the lines of perception. The rules become fixed," concludes Klosterman in *Sex, Drugs, and Cocoa Puffs*. The problem is, in our digital simulacrum of reality, instantaneous gratification is traded for originality. Instantaneous gratification molds expectations of what is possible. A student might know that a piece could be improved in theory, but if the buttons cannot make it happen, then it falls outside the realm of technology's molded logic. Design work that would never have held up in the past due to mediocre ideas is suddenly valid. The perception becomes that all design work follows the rules afforded by Auto and the tools start to have fewer variables; students' self-criticism and perceptions about their peers' work no longer follows logic or asks questions—"how could this improve?"—and instead follows rules formed "when life is constructed on a sixteen-inch screen."

20. The ability to FIND is not the same as the ability to KNOW. It is no longer a debate-worthy question of whether college students have redefined knowledge as knowing where to find the information. We do question the long-term result of a lack of original thought that will result from finding instead of knowing, with convictions descending from an increasingly curated internet search, the gatekeepers of that canonized knowledge being commercially motivated. Learning = Shopping. This ties to the issue of Information Noise as professors (and designers) struggle to communicate with an audience increasingly unable to dissect complex messages, prioritize content, and inquisitively interact with what they learn.

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As Ludwig von Bertalanffy explains, "Modern psychology has all the tricks to turn human beings into subhuman automata, or into a mob screaming for destruction of a supposed enemy or even of themselves…however, in doing so, you de-rattisize rats and de-humanize humans." Unoriginality is a human problem.

Much of the technology of design can be learned through tutorials, through other technology. The Color-by-Numbers Photoshop. This is less of a human problem. Sure that can help suggest image correction steps. But that does not mean the image is formally strong or conceptually interesting. When tech IS design and college equals job training, then students' inevitable response to a prompt is to ask the teacher to make it an order in an order. The fact that there are no successful Color-by-Numbers paintings in the Louvre does not cross their mind. A medical doctor once told me design is as difficult as med school if not harder: rather than memorizing and regurgitating content, designers need invent and generate their own. "Passive" doesn't cut it. The truth is, there are far more design students than design jobs and no amount of tech ability can compensate for an average portfolio; there is simply not enough places to place the graduates. As Thomas Friedman wrote in a 2012 New York Times piece, *Average is Over:* "In the past, workers with average skills, doing an average job, could earn an average lifestyle. But, today, average is officially over. Being average just won't earn you what it used to. It can't when so many more employers have so much more access to so much more above average cheap foreign labor, cheap robotics, cheap software, cheap automation, and cheap genius. Therefore, everyone needs to find their extra—their unique value contribution that makes them stand out in whatever is their field of employment…With each advance in globalization and the I.T. revolution, the best jobs will require workers to have more and better education to make themselves above average."

21. As Neil Postman comments, *"The computer redefines humans as 'information processors' and nature itself as information to be processed."* Wrote Bob Thompson in The Washington Post, *"The clash is between what you might call the technorati and the literati. The technorati are thrilled at the way computers and the Internet are revolutionizing the world of books. The literati fear that, amid the revolutionary fervor, crucial institutions and core values will be guillotined."*

Coupled with the sentiment that students are afraid to Fail, due to economic stress, subsequent parental stress, and self-preservation, risk-taking is not an option. Which is not to say that no opportunities exist, but that there are few and often they are taken by the few elites. "The lessons of 1 percent education: 1 percenters must always succeed," says Neal Gabler. Along with the rest of the depressed population, everyone is sitting tight and holding on—student loans are an incentive alone to keep inventiveness at bay. Experimentation is not even a consideration. When people are scared, they either run or fight. With a system that has taught students to sit quietly with their hands folded neatly on their desk, design educators need recognize submissiveness and must bait impotence out of their minds.

"Apart from the artists themselves and a few persons who would also be artists but for want of opportunity and for insufficient gifts of hand and eye, there is in the public of to-day no real knowledge of art, and little love for it," wrote William Morris.

Mr. Morris was a textile designer, architect, writer, painter, printer, and utopian socialist of the nineteenth century. Associated with the Pre-Raphaelite Brotherhood and the Arts and Crafts Movement—a precursor to similar ideals of the Bauhaus—Morris advocated the marriage of Art with Life. At the peak of his work, the Industrial Revolution hit full throttle leaving the sentiment of aesthetics in the wake of speed, progress, efficiency, and mass production. The idea that people could have well designed products produced en masse for an affordable cost was his ideal. In reality, he did produce well-crafted work, albeit it was not democratic.

XII. 3 pages down, 67 to go. Apple Spotlight. brrrING—brrrING. MOMMY!

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Claims Morris, "So then it comes to this, that not only are the minds of great artists narrowed and their sympathies frozen by their isolation, not only has co-operative art come to a standstill, but the very food on which both the greater and the lesser art subsists is being destroyed; the well of art is poisoned at its spring…But in these days, I have said and repeat, the whole people is careless and ignorant of art; the inborn instinct for beauty is checked and thwarted at every turn; and the result on the less intellectual or decorative art is that as spontaneous and popular expression of the instinct for beauty it does not exist at all."

It is enlightening to compare Morris's agenda to that of a prominent, graphic designer of the twenty-first century:

In her article *Toward a Definition of the Decorational,* Denise Gonzales-Crisp looks to the International Style as culprit to the death of decoration. Says Crisp, "Decorative arts were anti-technology and therefore useless to Corbusier's future. The technology train had already left the Gare du Nord. No looking back. His was the age that witnessed and survived the First World War: '1914: the event that upset everything…The old world was shattered, trampled on, rejected, buried…While the event took its course, technology could dare everything.' Any lingering decorative impulse would need to conform to a steely techno-logic that not only expressed modern life, but promised to redeem it…At base, the decorative is now exuberantly technological." Crisp's ideal is not pro- or anti-technology, but rather an opposition to work that wears technology as a sterile, featureless sleeve of style.

23. "These days, when a nursing student at the University of Iowa fields a question about a drug, the answer is often, 'I don't know, but give me a few seconds,' and she pulls out her phone, according to Joann Eland, an associate professor there. In just a few years, technology has revolutionized what it means to go to nursing school, in ways more basic—and less obvious to the patient—than learning how to use the latest medical equipment…They also worry that students rely too much on digital tools at the expense of patient interaction and learning…'I get worried when I hear about nursing programs that want to replace the person-to-person clinical experience with increased hours with simulation,' she says. 'We hear sometimes that it feels to patients that the computers are more important than they are,'" notes Richard Perez-Peña in A Nurse Need Never Forget. The point is, the information in the noise that is valuable can be discerned, but because the priority is on information derived through technology over information derived from human elements, the blinding elements of the blur remain.

24. HOT dog HOT dog! Please stand clear of—ssssst sst—Interventions are about perspective.

In theory, these designers are iconic milestones, like a 1967 GTO compared with a remake from 2009—same speed, though not even nearly the same sexy body. In practice, Morris is politically forward thinking in his approach to decoration, but both Morris and Crisp stand testament to design in context. In other words, the success of their work is chained to their understanding of the past. Logic, research, and political perception drive their use of design and decorative arts in relationship to technology. Without these grounding elements, you have technology for the sake of technology, and Michael Bay's Transformers 2 as a poster child.

However, there is still the: "Why?" Crisp seems to believe that decoration's former life is enough reason for a resurgence, while Morris treats it as an inevitable style of Art For All. Decoration is not the intrinsic answer. Making something pretty is like dressing a turkey with stuffing. A full-bleed image of a dead bird in the November edition of *Martha Stewart Living* is never going to DO anything but taste like paper. Style ≠ Substance. Computers can offer both entertainment and tools but try as they may, technology does not give a damn about Life. It may be labeled under the guise of "humanitarian," but that's only because everything is initially presented as optional, though culturally, many technological advances become required. A well designed wayfinding transit system (Massimo Vignelli), a beautiful teapot (Michael Graves), sex toys (Marc Newson), Helvetica (Max Miedinger). The point being, how does taking the blue pill fix anything? Context and content elevate *Catch 22* and *Slaughterhouse-Five* to answer WHY.

25. This is an intervention for design education attempting an intervention in tech-clutching, image-hazed minds of contemporary college students. This self-given "Interventor" label is a working-title for the role design educators need take on.

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To be a designer is to uphold an obligation to humanity.

26. Knowledge is Power. And the power stimulated the lab rats enough to induce a coma, where our young batteries wake only enough to scroll to another _____ image. (Remember when we called them photographs, graphs, or paintings?) This pixel noise, this stimblur would be Kubrickian if students were attempting to close their eyes to the endless waves of jolts. But the need to incessantly squeeze the Facebook IV drip bag reduces the Quality Design Education to half-glances, yellow Cliff Noting Knowledge in favor of attention spread increasingly thin like cream cheese across a very large, Ubiquity Bagel. That is addiction. Ten years of debt invested in the lectures by the lecturer, six years of expensive design school and unique research on the side of the professor, and a dozen prospectives offered by the physical peer entities sitting directly adjacent to the user. But the relationship toggles from one of these same peers and the students are gone. An addict's blurry haze of comfortable distance. That is an inability to parse information.

27. "Never forget that the human race with technology is just like an alcoholic with a barrel of wine."—The Unibomber Manifesto: Industrial Society & Its Future*, by Ted Kaczynski.*

Let us consider the redesign of the Adobe CS6 Suite's splash icons. On their site, Adobe offers a brand process book of sorts, time-lining their progression for their icon-interface of the software starting with the wee days of Adobe Illustrator 1.1 back in 1987. The premise behind the bitmappy Alphonse Mucha-like rendering of a beautiful girl was intended as a demonstration for what the software could do, and that, someday!, you might be able to do this as well. Since then, Adobe pulled back with a stringent system based on color, "geometry," and two-letter pairs. CS6 attempts to combine the "sweet spot" of both worlds meshing digital geometry and tactile (digitally organic) swashy. We love this example of software reduced to boxes with explosive party favors. Extrapolating a perfect demonstration of Crisp's quest for the decorational and our argument for a controlled use of technology, we apologize to our students that this is being brainwashed into their heads every time they boot up.

Squabbling about "designart" or "the difference between art and design" is like a journalist taking an oath to insert the word "alleged" after every stated fact regardless of how true it is. It's empty, and it is insulting. Design can matter, but only with context to drive content to drive message. "Creative people should get more involved and contribute to something instead of just massaging their egos," argued Ivan Chermayeff. To be fair, Morris did, but his reasons had more to do with his drive to create than the (expensive) design decisions he made.

28. "The TV works, but the clicker is broken."—Blonde Over Blue, by Billy Joel.

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Students need to know the context to their profession. Using purple doesn't make it royal. Anymore, the Romain du Roi doesn't belong to King Louis XIV. Chinese red doesn't make it more important in America. Red is fifty percent gray and for designers who don't understand color theory, that's why the industry adopted black, white, and red for it's I AM A DESIGNER palette. The American college and university system is well-regarded for its studentrighttochoose and interdisciplinary approach to education, a major reason for the influx of international students. If purple stands for creativity, then designers must refrain from using it. Do students understand that logic? The other day a student asked me, "What's a good Italic typeface to use?" The immediate response from anyone would be, "For what?" Student: "Doesn't matter." Upon closer examination we learned this student was applying for human resource jobs and wanted his resume to "fit in," keeping with a "Microsoft Word" look, hence his intentional use of bullets. On a very rudimentary level, this student's entire thought process is misguided.

Equality 7-2521, International 4-8818, and Union 5-3992 are characters from Ayn Rand's *Anthem*.

What's happening, what happened, what's next? By extension, design educators need to be one step ahead asking questions like: Why did Google spend a billion dollars to purchase Instagram and how does that impact design? How in hell did Jay-Z end up designing the Nets logo? Who is James Thurber how does he inspire me as a designer? Certainly the online community (everyone) responding to SOPA with content blackouts is worth class-time. Ray Johnson and Sol Leiter are imperatives for curriculums, but when was the last time design students (or their faculty) mentioned either? For context on context, here is Sol Leiter: "Some photographers think that by taking pictures of human misery, they are addressing a serious problem. I do not think that misery is more profound than happiness."

Writing for *The New York Times*, Morgan Smith profiled protests against technology-driven education assessments. "One day, when he was bored in class, Christopher broke a pencil eraser off in his ear canal. It was the tipping point for Ms. Chamness, a former teacher, and she asked to observe his Austin elementary school classroom. What she saw was a 'work sheet distribution center' aimed at preparing students for the yearly assessments that they begin in third grade and that school districts depend upon for their accountability ratings. Now, with Christopher in fourth grade, Ms. Chamness will take a more drastic step: She intends to pull him out of standardized testing altogether this spring, in protest of the system that she said had sapped her son's love of learning."

29. A system *is a manner of classifying, symbolizing, or schematizing; a set of connected things or parts forming a complex whole; a set of principles or procedures according to which something is done. A non-critical judgment of large amounts of stuff is how we get U-Haul storage facilities, American obesity, stamp collectors, Ripley's Believe It or Not, Carol Channing, and compulsive hoarding disorders. With a better CMS, the NFL Draft need only last for thirty seconds, or 15 minutes for slow readers, instead of three days. With quality control, fifteen social media subscriptions won't all chirp at once. The greatest service we can offer students is a curriculum that contextualizes, guides, and manages the media assailant.*

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The trouble is that students are starting to view college as an inconvenience. If design equals technology and students can learn technology online, then the physical classroom is simply a pain. Some of this conditioning against the value of a physical design educational experience starts with the push toward computerized forms of assessment. Consider how much we trust technology—if a machine says we have high blood pressure, a tumor, diabetes, poor exercise habits, then we believe it. But if there is no digital printout, then we become skeptical. So, if the machines say a student is smart, then the student believes it. This is a shuttered approach to education, the opposite of receptive. Not that there is anything intrinsically wrong with ebooks, but convincing students to purchase textbooks is only slightly less laborious than convincing them to read them. Students know where to find information and asking them to be responsible for it seems to them an absurdity.

We know things evolve, but they are supposed to evolve forward. Streamlining the testing process at the sacrifice of accuracy seems like a regression. In fact, it seems barbaric. I was taught that the definition of a barbarian was someone who wrecked anything they did not understand. No doubt this essay will leave us labeled as barbaric Luddites, as if we were anti-technology in the design classroom, a completely absurd (and pointless) proposition. However, it is important to keep in mind that students do feel the collegiate system is barbaric. There is a legitimate point there, that the predominant lecture model is medieval—a single literate reads a book and then tells the group about it. Now, with the entire class able to read and in possession of instantaneous and unlimited information, colleges need to provide something beyond technical job training and the thrill of a learned professorial drone paired with slides. There is also the trouble of attention spans, as students are used to interacting with information in snippets, quickly bouncing from bit to bit, and hours constricted by

the professor's superior sense of time usage is grating. In short, the current lecture and textbook approach does not fit into students' world. Technology will force physical colleges as we know them to evolve or die.

The truth is that the interplay between how students are utilizing and experiencing technology is at odds with effective communication in design coursework. We have a few more relevant thoughts before we extend the discussion of unoriginality in the design classroom.

Proof that computers do not prophesy collegiate success, the Posse program has helped students who did not meet standard admittance criteria to achieve acceptance and success in highly ranked academic institutions. By training disadvantaged youth with drive and potential in a community setting emphasizing peer accountability, Posse places students consistently and accurately, and their students consistently perform well in college. The Posse Dynamic Assessment Process is statistically more competitive and far more comprehensive than Harvard's admission procedure, the objective is something that cannot be measured through technology, what Posse considers to be the best indicator of collegiate success—the ability to collaborate and thrive in a group setting.

Anti-testing sentiment is rising. Research indicates that collegiate success has much to do with economic background and nothing to do with SAT scores. Likewise, students and parents are increasingly resistant to a testing-based grade school curriculum that produces good students and poor thinkers, an issue teachers foresaw from the beginning. Even as tests are used to gauge and publicly out teachers, seemingly all parties are firing back saying the system is flat out inaccurate. As

standardized testing of all sorts has come under fire as a valid way to determine academic potential, the hope is that a new crop of students will rise to the top who value curiosity, innovation, and craft.

In Interactive Foundation for example, we assign *Pranks,* by V.Vale as the official text for the class. Featuring artists like Joey Skaggs, Mark Pauline, John Waters, and John Cale, this non-traditional textbook is intended to provoke the most foundational questions, "What are 'interactions?'" and "How can we facilitate them?" The answer rarely involves code. In an effort to contextualize code as a mere tool, we utilize assignments requiring ongoing mail art communications with a peer, invent and then teach a medium, create an instrument that is publicly installed and documented, and construct an app in physical space. As with all design courses, we are studying both communication and practicing formal skills, in this case, dissecting methods of interaction. But with these projects we aim to entertain and engage, specifically providing something that simply cannot be learned online. We use languages, mediums, and references that students recognize, but contextualize it in something entirely new.

We would offer that students are onto something regarding their apathy toward books. Chuck Klosterman in *Killing Yourself to Live*: "It occurs to me that—since leaving for this trip—I have read nothing except the occasional newspaper (and usually just the sports section). Surprisingly, I don't miss it. I've always been envious of friends who claim to have some kind of profound, erotized relationship with literature, because I don't feel that way at all. My apartment is filled with books, but I secretly suspect I hate reading; sometimes it feels like something I'm forever forcing myself to do (and for reasons I never quite understand). Part of this might have to do with the fact that I write at roughly the same speed I read, so I always feel

30. "America has spoken: Pile my food in a fucking bowl." Patton Oswalt calls out KFC's Famous Bowls as a symbolsymptom of American Culture. "If you could put my lunch in a blender and liquify it and then put it into a caulking gun and inject it right into my femoral artery, even better. But until you invent a lunch gun, I want a failure pile in a sadness bowl." For comedian and media critic Patton Oswalt, KFC's Famous Bowls represent the desire to have food fulfill its essential function in the body as quickly as possible. It is mass produced Hot Dog Eating Contests. Carbsfastrightnowgo! It is how we consume information: Rapidly, effortlessly, ubiquitously.

like I should be making better use of my time. Nobody's paying me to read, you know? And I realize voicing this perspective in print is precisely why certain intellectuals consider me irrelevant, and I realize that the proliferation of this style of thinking is probably what makes America a nation of imbeciles, and I realize this sentiment would break the heart of my eighth-grade english teacher. But it's also 85 percent true. And I'm not sure how this happened, because when I was in high school, all I ever did was read; it wasn't until I spend thousands of dollars to pursue higher education that I discovered reading was kind of neutral, reactive way to spend and evening. At this point, I pick up Confessions of an English Opium-Eater and read the first 20 pages. It's not bad. Maybe those 20 pages made me smarter, and maybe they did not. Actually, I just find myself wishing I could eat opium for breakfast, so I'm guessing they did not."

The reason why young adult literature like *The Hunger Games, Twilight, and Harry Potter* trilogies are so successful relates less to the age of it's audience, and more to the fact that this is the reading level of America. We are not so much criticizing Mr. Klosterman's aversion to reading as much as considering it part of a larger cultural shift toward more passive entertainment. This matters greatly in higher education where the communicating and exploring of complex ideas is the essence of the institution.

Art Winslow, in an article from the Huffington Post, comments that, "In the new book burning we don't burn books, we burn discussion of them instead…An intellectual brownout in progress that is beginning to look like a rolling blackout instead." The point is, more important than the benefit one individual might gain from a book is what happens from that individual's discussiondiaspora, and what is the cultural impact of an in depth and fully realized world or argument dropped upon a

31. "The problem with the Internet is that it let's anyone become OTAKU about anything instantly. [In Japan, the word otaku *refers to people who have obsessive, minute interests—especially stuff like anime or video games. It comes from a term for 'someone else's house'—otaku live in their own, enclosed worlds.] In the '80s, you couldn't get up to speed on an entire genre in a weekend," writes Patton Oswalt in* Wake Up Geek Culture. Time to Die. *"You had to wait, month to month, for the issues of Watchmen to come out. We couldn't BitTorrent the latest John Woo film or digitally download an entire decade's worth of grunge or hip hop. Hell, there were a few weeks during the spring of 1991 when we couldn't tell whether Nirvana or Tad would be the next band to break big. Imagine the terror! Here's the danger: That creates weak otakus. Etewaf (Everything That Ever Was-Available Forever) doesn't produce a new generation of artists—just an army of sated consumers." Contentless = Passionless. Informationhummnoise, and the professors are just more data dispensers.*

large audience? Students are not engaging in this practice as much as we wish, mostly because they lack the history to see how this medium benefits them.

Historically, a Professor, professed. Archaically, this meant he (probably a man) claimed complete knowledge or skill in a specific subject. (There was no Google.) So one knowing man versus a healthy body of unknowing students. A professor was literally a gatekeeper of knowledge, ie. quality control. What this means is—wait for it—"The dinosaur did what to the spaceship?"—undivided attention. Anymore, if the student isn't entertained, they're checked out. Unfortunately for all the greatly entertaining professors, that skill set is not the hallmark of a quality repository of knowledge. The push toward entertainment in college courses is partly because professors are attempting to compete with the immediacy of digital distractions. Perhaps the solution for an environment students do not recognize and think of as a pain is not to amp up the same system, but to try something different, an idea we will return to in the final section of the paper.

Lectures are an opportunity to show lots of work, not lots of solutions. Students already can find lots of solutions. When the concept for a lecture is open to all media, tangential ideas, and both contemporary and historical work, we find "brain-soaking" a much more profitable accompaniment to assignments as opposed to flipping through examples of prior student work for the same assignment. A blitz of conceptual links build a diverse and conceptual web of ideas, often involving live comments in the class; this experience is not on Youtube. Quick conceptual leaps from one image to the next, PowerPoint and text on slides be damned, exposing students to names, ideas, media, politics, and history in a concise interconnected and relatable manner sends students on their way to conceiving new connections, bigger boundaries, and new approaches to

assignments. Furthermore, and of great importance, is the conscious effort of weaving in an undertone of sex and violence to lectures. This will more likely keep students actively engaged and participatory which aids in an excited state of mental acuity.

"A genius can be a genius by trying to be a genius; a visionary can only have a vision by accident," argues Klosterman. Our goal is to not only acknowledge where students are at, but to create a unique experience for them. The result of this exploration should be the student discovering, seeing, envisioning something personal and new. We argue that this is not too lofty of a goal for design programs, not for $40,000 a year.

Consider the UPS logo designed by Paul Rand in 1961. Incorporating the shieldparcel reducable to a black and white linear shape was symbolic of integrity and protection, ease and security. It was a brilliant, high-five to God mark. In 2003, FutureBrand made a few minor tweaks…

The word "Style" comes to mind.

Pepsi, Apple, Shell, Burger King, AT&T, MTV, and Ford just to name a few more. As the new millennium booted up, a trend in "gummy" logos emerged. By "gummy," we mean gummy bear. As in you can pick them up and squeeze it. As in a plushbearcuddletoy, and if anything represents Style over Substance, it is a stuffed bear. Beveling, embossing, light-flaring, rounding, colorizing excessively, making it precious and pocketable; we are not arguing that these revisions are poor, merely that they have been stylized. This "glitzing" process is what our students think branding is.

That said, the pointlessness of an easy techwow does have an advantage: accessibility. "For a generation so used to—and burned out on corporate placement and sponsorship, the idea that these creations come from individuals just like themselves is intoxicating," writes Jeff Gomez in *Print is Dead: Books in Our Digital Age*. Our goal is to teach solid design skills, the value of invention, and context to help corral the technology while fanning the eagerness to engage with the tools and mediums.

Gimmicks, broadly speaking, are usually not good ideas, let alone ideas at all. Adding a ribbon, using a Photoshop filter, choosing to do a stop-motion piece because it can fit all cozy on YouTube, deciding on form before having had a single content-related thought, doing it because that is the easiest paper to find—these are Style over Substance decisions. To borrow from Ludwig von Bertalanffy, "This, in brief outline, is the robot model of man." That maxim about logos needing to work in black and white, is still true. But our students do not see this sentiment online so we must give it to them.

32. 6–6–1–8 to unlock. 37 Preston Ave to three-fifty at Dunkin' first. Thank you.

33.

Phase 1: Humanitarian
Phase 2 : Necessity
Phase 3 : Addiction

34. For the past seven days, I have been rechecking every e-mail I had sent to Quincy prior to my arrival in Minneapolis, looking for subtext I might have unintentionally inserted into each message," says Klosterman in Killing Yourself to Live. *"This is all you can do when a woman you think is going to respond says nothing in response; all you can do is open your 'sent mail' folder and stare at missives you already mailed electronically, deconstructing every sentence and wondering if—somehow —you accidentally offended her." Chuck Palahnuik says that the problem with every story is that you tell it after the fact. See paragraph 12. Modern communication mediums fix this. And by fix, we mean neuter. Data, not stories, result from the immediacy of email transactions.*

It is mind blowing how many students consider how they're doing something prior to determining what they're doing. Our response to a student presenting an idea as a purely formal consideration is always (and only): "Why?"

Somewhere in the design process educators have overlooked the necessity of developing a thinker over a maker, and in the process students came to honestly believe the Instagram Polaroid feature is an Idea. Worse, for them, it is formally and conceptually indistinguishable from the real thing, meaning they no longer see technology as aiding work, they see it as defining work.

In 1990, Wendy Richmond wrote about graphic design's sentiment toward computers, "The profession of graphic design, as a whole, has an attitude. We've taken a shortsighted, hands-off, I'll-do-it-if-I-have-to approach to new technology. We have problems; some are our own fault (they are self-fulfilling prophecies), and some are beyond our control. We reject designing for new technology because we perceive the results as ugly. (That is because much of what we've seen hasn't been professionally designed.) We reject designing with new technology because computers are 'too expensive. Too hard to learn. Not made for graphic designers…' The biggest problem is that we don't see new technology as graphic design."

Large start up cost, shift in production methods, steep learning curve; the resistance to tech only twenty years ago is astonishing, a mark of how fast and invariably Americans embrace new technical tools. Postman would argue that this is a cultural hallmark, but in design, it seems that ease and accessibility are deified. As numerous web demos indicate, design software has opened the field to anybody.

35. Habit formation is a behavioral response to stimuli in anticipation of a reward. As paths become learned, mental activity decreases and becomes more automatic. In the article, How Companies Learn Your Secrets, *Charles Duhigg asks how designers are able to aim advertisements to expectant mothers without women even knowing they're pregnant. "Our relationship to e-mail operates on the same principle. When a computer chimes or a smartphone vibrates with a new message, the brain starts anticipating the neurological 'pleasure' (even if we don't recognize it as such) that clicking on the e-mail and reading it provides. That expectation, if unsatisfied, can build until you find yourself moved to distraction by the thought of an e-mail sitting there unread—even if you know, rationally, it's most likely not important…The reason Target can snoop on our shopping habits is that, over the past two decades, the science of habit formation has become a major field of research in neurology and psychology departments at hundreds of major medical centers and universities, as well as inside extremely well financed corporate labs. 'It's like an arms race to hire statisticians nowadays,' said Andreas Weigend, the former chief scientist at amazon.com. 'Mathematicians are suddenly sexy.' As the ability to analyze data has grown more and more fine-grained, the push to understand how daily habits influence our decisions has become one of the most exciting topics in clinical research, even though most of us are hardly aware those patterns exist." For many of us, habitual behaviors like buying is motivated by fear. The fear of being left behind. Technology renders an impotent competition-less consumer. "Beer," writes Kurt Vonnegut Jr., "is actually a depressant. But poor people will never stop hoping otherwise." The point is, even if students are aware of how they are interacting with information, they participate in a numb state anyway.*

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In 2000, Ted Kaczynski pointed out the inevitable integration of technologies into all businesses, "When someone develops a new technology, the small-business person often has to use that technology whether he wants to or not, in order to remain competitive." In other words, not only can anybody master design software, but it is an imperative. This is precisely why we tell students to never market themselves as a print designer, even if it is essentially true.

With the prevalence of prosumer tools including digital cameras, software, and Wordpress, the idea that You! Can! Do! It! (Design) Too! has been fantastic, especially for students. Design programs are booming and MFA programs are proliferating. However it has also enabled "Style over Substance" work as the tools are exercised without regard for process. When students grow up with coupons from ValPak on their kitchen counter, product packaging that trips on drop shadows and Papyrus, pop-up ads for YOU WIN!, and window clings with pixelated six foot tall hot dogs, educators are not only presented with the task of helping the amateur Photoshoppers unlearn bad habits, but we also compete with their one-trick-pony means to an ends to coax process forward. We often loose because buttons are easy.

"Xerox (one of the makers of print-on-demand technology) produced a commercial in which a young student stands up in class and rebukes his stodgy old professor who is in the middle of lecturing the class about how they will most likely never grow up to be published authors. The obstreperous student states that—because of all this great new technology—one day everyone will be published." Jeff Gomez hit the proverbial Amazon.com nail on the head. The very word "prosumer" is a direct definition of student designers. Many manufacturers have a vested interest in promoting technology as the golden

36. Scroll to Page 4. Thirty-five hundred direct deposit. Account 0007086293. Five days until. Thirty minutes late. Excuse me.

37. By way of clarification, think of Pink Floyd's rock opera film, THE WALL (1982), written by band member Roger Waters and animated by cartoonist Gerald Scarfe. Roger had never written a screenplay and Gerald had never made his comics move. The entire production was a self-interest endeavor (how many projects do you see students doing for the hell of it?) and combines footage with illustration with the album. The narrative is centered around Pink, a rockstar protagonist, who suffers from persistent and pestilent media assailants, starting with an innocent vacuum cleaner. As a student, Pink is humiliated for writing poems in class (accompanied by the song Money) *and is stifled by his overprotective mother. Withdrawal from his wife, band, society, war, "friends," and a remote control television cause ravaging despair and lead to a decrepit mental and physical state ill-lust-rated as a limp rag doll choreographed with,* Waiting for the Worms. *The Wall is important for two reasons. Marrying concept, form, and a hard critique on culture, The Wall is one of the most demanding musical film productions ever conceived. Secondly, this walled off state is not subservient to how "connected" someone is online. Our students are well on their way given their relationship to information.*

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ticket to the all-skate. A clashing pair of metaphors, sure, but that is the point. Someone is winning by promoting Design Is Easy, but we do not think its name is "Design."

A similar situation happened in Journalism programs. Print died, yet enrollment in Journalism majors piqued. Why? When students come in thinking Twitter is writing, why wouldn't it carry the allure of easyfun? Twitter and Tumblr are great, really all forms of sharing without the Facebook mush are capable of promoting great work. (Facebook unfortunately seems to drown all content in a plethora of distractions.) Sharing links, work, events, ideas, and rants in a concise, salable form is much improved since the days of MySpace, which has now been returned to musicians. While this is a far cry from the muckraking days of Ed Murrow, citizen journalism still has potential. Plus, maybe pop culture will implode. Then what will all these journalists do?

38. "Assuming that industrial society survives, it is likely that technology will eventually acquire something approaching complete control over human behavior."—The Unibomber Manifesto: Industrial Society & Its Future, *by Ted Kaczynski.*

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"Well, I first started out as a business major, but it was just so boring and my parents said I had to study something that ensured a job." Design seems to cull all the gifted from the arts with the lure of a Legitimate Paid Career of Legitimacy. (Bansky: "The thing I hate the most about advertising is that it attracts all the bright, creative, and ambitious young people, leaving us mainly with the slow and self-obsessed to become our artists. Modern art is a disaster area. Never in the field of human history has so much been used by so many to say so little.") Design educators must contextualize Web 2.0 and aggressively crit anything presented with the phrase, "open source." Students want to be photographers because they have a camera on their phone. They often want to be designers because it seems easy, because they coded a webpage from a template for their next door neighbor and got two hundred bucks. Design seems inherently lucrative, accessible, and unlikely to produce sweatstains.

39. "Battle shock created by violent noise has been adapted for dental use in the device known as an audiac. *The patient put on headphones and turns a dial raising the noise level to the point that he feels no pain from the drill. The selection of a single sense for intense stimulus, or of a single extended, isolated, or 'amputated' sense in technology, is in part the reason for the numbing effect that technology as such has on its makers and users. For the central nervous system rallies a response of general numbness to the challenge of specialized irritation. The person who falls suddenly experiences immunity to all pain or sensory stimuli because the central nervous system has to be protected from any intense thrust of sensation. Only gradually does he regain normal sensitivity to the sights and sounds, at which time he may begin to tremble and perspire and to react as he would have done if the central nervous system had been prepared in advance for the fall that occurred unexpectedly. The impulse to get 'turned on' is a simple Pavlovian reflex felt by human beings in an environment of electric information. Such an environment is itself a phenomenon of self-amputation. Every new technological innovation is a literal amputation of ourselves in order that it may be amplified and manipulated for social power and action."*—Understanding Media: The Extensions of Man*, by Marshall McLuhan.*

40. Pavlov discovered the non-perceptive somnambulist as a result of operant conditioning.

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Prosumer tools do not make designers.

If design education was searchable, it would not be worth $40,000 a year. But if it does what it should do, students have the potential to produce work not reliant on gimmicks, work that is personal, unique, brave. Work that startles and seduces. Excuse us for our frankness, but our test is: Good design should spark designers' hormones. Medicate as needed.

If grades cannot be trusted, if technology is free to all and learnable by all, if college success is determined by students having enough cash to claim the few valuable internships (which are increasingly unpaid), then the only true indicator of a design student's ability is their portfolio. And competition being what it is, only the most unexpected and highly crafted portfolios will rise. The question is, how can someone be convinced that the passage out of unoriginality is worth ten years of debt?

41. "Books and loud noises, flowers and electric shocks—already in the infant mind these couples were compromisingly linked; and after two hundred repetitions of the same or similar lesson would be wedded indissolubly. What man has jointed, nature is powerless to put asunder. 'They'll grow up with what psychologist used to call an 'instinctive' hatred of books and flowers. Reflexes unalterably conditioned. They'll be safe from books and botany all their lives.'"—Brave New World, *by Aldous Huxley.*

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E | DEVALUE

William Morris said, "Now whereas there have been times in the world's history when Art held the supremacy over Commerce; when Art was a good deal, and when Art was a good deal, and Commerce, as we understand the word, was a very little; so now on the contrary it will be admitted by all, I fancy, that Commerce has become of very great importance and Art of very little." This issue translates directly into contemporary design education because of its current consumerist trending. The result is a decided devaluing of physical school structures, or really collegiate design programs all together. While a complex issue that ties to virtually all aspects of culture, there are a few elements we feel are particularly relevant.

A group of fifteen students sitting in a room together, fifteen occupied computer stations, fifteen pairs of ear buds plugged in, and fifteen cell phones off to the right of the mice. Proximity to resources, including both people and gear, isn't the only factor to a successful, interactive classroom environment. Neil Postman argues that the reason students have an individualistic approach to education is a direct result of technology: "To a man with a hammer, everything looks like a nail. Without being too literal, we may extend the truism: To a man with a pencil, everything looks like a list. To a man with a camera, everything looks like an image. To a man with a computer, everything looks like data. And to a man with a grade sheet, everything looks like a number." In short, computers in the classroom have turned the experience away from group learning and into the realm of the Single User. In this realm, data and numbers become the only things worth learning / earning. Computer workstations do little to promote physical interaction or communication.

42. "Imagine a society that subjects people to conditions that make them terribly unhappy, then gives them the drugs to take away their unhappiness. Science fiction? It is already happening to some extent in our own society."—The Unibomber Manifesto: Industrial Society & Its Future*, by Ted Kaczynski.*

43. TWEET: This, from way back in 2001, http://www.youtube.com/watch?v=u172TqBHTvM.

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In a society that would rather text someone ten blocks away than interact with the friend sitting right next to them, the value of group learning is a tricky sell. Describing our current crop of students, Jeff Gomez writes, "It's an entire generation that has never known a classroom without a computer or a math class without a calculator, and can't remember a day when they weren't carrying around at least one electronic device at all times."

Napster, launched in 1999, tapped the file-sharing model to build the world's largest music library. The speed with which the Napster community metastasized, the way it reworked the entire system of content distribution, and the breadth of the content collected was all truly was incredible. But the "powers that be" refused to adapt and shut Napster down. This is a temporary setback in the pursuit of online democracy if the successful defense against SOPA is any indication.

Benefits aside, the emphasis on online mediated interactions over physical ones begs questions about the nature of classroom and online communities. In short, does online culture promote collegiate design communities? It's a game to students: wrack up music, figure out who is with who, burn through wasted transit time, appear to be busy, comment on photos, link links to links, play FarmVille, call friends for a ride, look up the closest Thai restaurant, update a profile, bid on an autographed hockey jersey, check weather widgets, keep the time, scan a candy bar's ingredients and purchase it via Pay Pal, get up to speed on the NY Times, and shoot a self-portrait next to a stone effigy of Christ. Think, "scavenger hunt." In this frenetic noise, adjacent peers disappear and drop away.

44. Consider Dani, aka "The Girl in the Window." Inside, somewhere in Florida. Dani is a six year old girl in diapers. She crawls on her hands and knees among feces, pests, and darkness. She cannot talk. You know how babies cry? For hunger, company, attention, and pain? Dani hides. Dani is vacant. She is not sad because she has nothing to desire. If you try to hug her she doesn't respond. Harlow's terrycloth monkey wouldn't even help Dani. Her eyes are nearly plastered shut. Between her emaciated sunken cheeks and inability to acknowledge any form of human contact, you should have a bad day after reading this. This is not autism. Not apathy. There's just nothing there. This is neglect: what happens in the absence of stimulation. The sun scares Dani.

45. The point is, we have over-stimulated ourselves into numbness. Inert. Our students are the opposite of Dani. These extremes are unhealthy and do not need to be a default state. They are not natural states.

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According to Neil Postman, "The university gives expression to its idea of what constitutes legitimate knowledge. At the present time, some accept this idea and some do not, and the resulting controversy weakens the university's function as an information control center." Being the young design educators that we are and having experienced hundreds of faculty applications and interviews at a broad range of college and university demographics, we have learned that faculty seem to be most prized for their pedigree and software competency. Permit us a Brit Lit allusion; like a parent wanting a handsome wealthy young man for their daughter and then handing her a condom, saying "be a good girl now," it is a bit of an irresponsible solution for a school to display a program as tutorial training wheels. This should feel scary.

Design educators, consider yourselves used.

46. 2:37 with 0:43 left.

Aldous Huxley argued, "I have been told by an eminent academic critic that I am a sad symptom of the failure of an intellectual class in time of crisis. The implication being, I suppose, that the professor and his colleagues are hilarious symptoms of success. The benefactors of humanity deserve due honor and commemoration. Let us build a Pantheon for professors." This is not to say that professors cannot or should not teach software, rather that their perspective on digital tools in relationship to culture is far more valuable to the institution and their students than turning faculty into job training videos.

In two years, any tech-related tutorial design educators teach will most likely be antiquated. In a college or university setting, spending the majority of class time on tech is a great disservice to the students. We know how much Lynda tutorials are worth, and hopefully the far more expensive collegiate programs provide something worth far more. By the time they graduate, students who have received primarily technical tutorials will have nothing but an education that is already on the verge of obsolete due to updates and Version X.X's with little appreciation developed for becoming thinkers and cultural contributors within their field. As savvy technorati and literati, our role is to evaluate technology and help students understand and critique it in situ. There is a role in society for those who see how things link together.

By also teaching the history and context of various design tools and ideas, students will become better, defter designers. And in the immediate context of the classroom, they will see their faculty as resources, able to respond to unique scenarios as they arise. Part of our job is to respond to each piece on its own terms, but we will not have this relationship as long as the school and students reduce us to a more expensive Lynda.

If this all seems incredibly messy or combative, the truth is faculty should be glad they have something to offer that cannot be replaced by a set of training videos.

Our point is, this was inevitable:

Tamar Lewin wrote for The New York Times about the success of online courses: "(In Fall 2011), 160,000 students in 190 countries enrolled in an Artificial Intelligence course taught by Mr. Thrun and Peter Norvig, a Google colleague. An additional 200 registered for the course on campus, but a few weeks into the semester, attendance at Stanford dwindled to about 30, as those who had the option of seeing their professors in person decided they preferred the online videos, with their simple views of a hand holding a pen, working through the problems. Mr. Thrun was enraptured by the scale of the course, and how it spawned its own culture, including a Facebook group, online discussions and an army of volunteer translators who made it available in 44 languages. 'Having done this, I can't teach at Stanford again,' he said at a digital conference in Germany in January. 'I feel like there's a red pill and a blue pill, and you can take the blue pill and go back to your classroom and lecture your 20 students. But I've taken the red pill, and I've seen Wonderland.'" Barring the insinuation that quantity is relevant, the question is fair: is the physical classroom pointlessly inconvenient?

It's something schools need to address. Raised in a climate of instantaneous gratification, students expect the convenience of online courses, even from their physical meetings. But school is broader than this, even though it's been reduced to online technical tutorials. Our point is that we need to make design education do more than workforce preparation. Can we

47. "Precisely in affluent society, with gratification of biological needs, reduction of tensions, education and conditioning with scientific techniques, there was an unprecedented increase in mental illness, juvenile delinquency, crime not for want but for fun, the serious problem of leisure in an automated society, and the appearance of new forms of mental disorder diagnosed as existential disease, malignant boredom, suicidal retirement neurosis and the like—in fact, all symptoms of a sick society… With robot psychology and technology, we have partly succeeded in the reversal of the evolutionary trend."—Robots, Men and Minds, *by Ludwig von Bertalanffy.*

offer an experience and skill set where physical interaction with faculty and peers is valuable, fun, engaging, personal, and unique? Onward: we don't actually care what happens to the traditional classroom structure because it was headed straight for this. What we are interested in is a new system designed from the ground up, to radically position thinkers and makers through an iron sharpening iron din of interdisciplinary response to reality. We are interested in whatever form of education actually educates. Enough with the medieval lecture halls. Enough with trying to force relevance by nosing coursework into social media. Fuck the workforce cog molds. Education has been churning on as an inevitability because it's only ever been geared toward that. Maybe as that model exhausts itself, there will be room for Black Mountain again. The Bauhaus. True discussion and interaction. A physical sandbox in a physical playground with very present peers and live, engaging faculty. Maybe design education needs to be more human and less about convenience.

Marshall McLuhan writes, "The children in Watts (Calif.) were quite right in asking, 'Why should we go to school only to interrupt our education?' Television is not a credit course in anything, but it very definitely has the marks of a natural environment in which the child forages and finds his way as much as any Indian ever did in the out-of-doors."

The school house was an invention of the printing press, argues McLuhan. Television (then the internet) eliminated the necessity of physically present teachers. With the death of print coupled with a faculty less interested in connecting their research to contemporary political issues, college programs have become less distinguishable from mass culture. It is a fair question then, on the part of students and parents, "What do schools have left to justify their price tag?" McLuhan was

writing about television before the internet and personal computers turned education into an individualistic pursuit. It is scary to think in what direction we have evolved since then.

Here's a story. ------ University ditched their screenprinting facilities last year. This year, they nixed their photo lab. Probably because we are no longer an image-based culture. And who uses a camera anymore? (This is a true story, by way of clarification.) Here are the politics behind the situation: this department graduated six students from the Photo and Video majors last year. The University is adverse to opening the darkroom facilities to non-photo and video majors, for reasons that are beyond our comprehension. And so it goes…

The lack of funding for these programs is not a shock.

Because ------ University has a large population of foreign students hailing from countries with strong cultural interests in lomography, it is possible that shifting the Photo and Video programs toward a wide range of Special Topic and electives courses, that the requisite department has the potential to be the most popular on campus. With this proposed structural model, the essential tools and faculty for teaching about images could be retained (and likely grown), and possibly majors could one day be reinstated. The point is, we live in an image-centric information culture. Contextualizing design using these mediums and tools is essential. Designers who can craft images from a variety of means and who understand how to utilize Time in their work possess invaluable skills.

48 Technopoly*, coined by Neil Postman to describe America's embrace of technology as an ends unto itself, contextualizes the flux of winners and losers, a rise and fall that nobody notices or questions. Postman argues that in a Technopoly, the education system goes through its final gasp of relevance, reduced to the level of mere job training. According to Postman, "Technopoly, efficiency, and interest need no justification."*

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It isn't that students have stopped caring about these facilities. Whenever we mention "letterpress" or "cyanotype" or "cardboard," our students go nuts. So what's the problem? Jeff Gomez comments, "the more our society turns to technology, the more things technology will touch." The proposition is either three computer labs fully equipped with the latest version of the Adobe Suite and a black and white laser printer or five enlargers and a sink. Since marketing an antiquated program is not an option, decisions regarding resources and space are often executed—double-tapped—by those who are trying to determine how to create successful art by looking at a spreadsheet. It's sort of like manually shaving with two blades instead of five automatic buzzing ones, a gag explored long ago in MAD Magazine.

Rolling Stone profiled guitarist Jack White and his interest in dead technologies: "White thinks of computer programs like Pro Tools as 'cheating.' He records only in analog, never digital, and edits his tape with a razor blade. 'It's sort of like I can't be proud of it unless I know we overcame some kind of struggle,' he said. 'The funny thing is, even musicians and producers, my peers, don't care. Like, Wow, that's great, Jack. Big deal.'" But White must be onto something. He has been a driving force behind the resurgence in vinyl as a music medium. Closer to design, consider the skyrocketing popularity of alternative photography and printmaking mediums, and how they are being explored outside their traditional constructs. The point is, these tools can be used to create unique and human work. Spreadsheets do not indicate the quality of the work being made. If someone asks why a poster is being run off a letterpress, it is perfectly legitimate to ask why they are producing their's with a computer. This isn't the "why not?" argument, but it is imperative to think of computers and screenprinting both as tools.

49. *"The frightening thing about these kids is that they'll take anything, anywhere."*—War and Peace in the Global Villiage*, by Marshall McLuhan.

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Designers are artists and it's best if we eliminate the job and money factors that hang over student's heads. We can try treating education as an indiscriminate investment in Mediums. New ones, old ones, loud ones, expensive ones. In Ray Bradbury's Fahrenheit 451, books disappeared because people stopped caring about them. Allowing students the opportunities to play in a Choose Your Own Adventure / Collect Them All approach to design is a ticket for students to understand the necessity of a Vandercook AND FontLab. The truth is, any tool a student learns can be used, hopefully to say something new and specific.

F | TRADESMEN VS. THINKERS

Call us Interdisciplinary Designers. Call us the cold-war kids from the post-pesticide backlash. Wake up Rachel Carson from her dirt nap and tell her, her eggs are okay, in moderation. In my day, the field of Graphic Design was split. Think Pinky and The Brain. Cuz when you think of Carson, you think of cancerous lab rats. *Pinky and The Brain* is a perfect illustration of graphic design's current state of separation. Pinky: "Gee, Brain, what do you want to do tonight?" The Brain: "The same thing we do every night, Pinky—try to take over the world!"

It is Tradesmen versus Thinkers—not that a designer can't be both. Not that one is better or "higher" than the other. But in college courses, it needs to be asked: Are we training students for the workforce or to be design thinkers?

Dale Stephens founded UnCollege, dedicating himself toward promoting learning outside of traditional educational structures. The premise is that students learn a lot outside of the classroom, which is a restrictive form of learning anyway, and that technology has democratically increased the availability of information. Stephens criticized the college structure as geared exclusively to teaching students to be students: "You learn how to follow directions, meet deadlines, and memorize facts." Of course this argument equally fits the military, contextualizing Stephens' feelings as a sort of general anti-joiner approach. Like military training and service, the benefits of college are supposedly in the intangibles, but there is no question that many collegiate courses function on a medieval model. This forms the crux of our argument that college is declining in value in the minds of students, but it also links to the categories warring in Tradesmen vs. Thinkers. Are we teaching good

design as a result of good craft or as a result of good ideas? You can substitute "design process" for "ideas." The latter has no overlap with military training. Teaching design as a trade very much falls under "follow directions, meet deadlines, and memorize facts." Tradesmen are necessary and certainly designers should incorporate a range of skills, but the accessibility of technology, information, and ability to find artists and designers quickly has eliminated the idea of designers purely as craftsmen. Ultimately, collegiate design programs should focus on skills that cannot be learned on the job. And certainly students can find better use of their college education than interning while still in school.

Perhaps the reason we shy away from this argument is faculty rightly require well-crafted work. Practical work is exactly that. And we value printers and coders and believe the various participants in the design process should interact.

Huxley wrote of a hierarchical structure for the distribution of labor in *Brave New World:* "'We also predestine and condition. We decant our babies as socialized human beings, as Alphas or Epsilons, as future sewage workers or future…' He was going to say 'future World controllers,' but correcting himself, said 'future Directors of Hatcheries,' instead…'Nothing like oxygen-shortage for keeping an embryo below par…In Epsilons,' said Mr. Foster very justly, 'we don't need human intelligence.'" We must teach design from a collaborative perspective, guiding students through interactions with proofreaders, printers, and programmers without giving up the emphasis on the creative process above technical prowess. It is not that designers are the only ones who think, but their primary value is in developing, conceptualizing, and visualizing ideas.

50. "In less than a decade, millions of Americans went from (1) not knowing what the Internet was, to (2) knowing what it was about but not using it, to (3) having an e-mail address, to (4) using e-mail pretty much every day, to (5) being unable to exist professionally or socially without it. For 98 percent of the world, the speed and sweep of that evolution was too great to fathom. Consequently, we learned how to use tools most of us don't understand. This has always been the case with technology, but not quite to this extent."—Sex, Drugs, and Cocoa Puffs, *by Chuck Klosterman.*

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Discussing the paradoxical impact of computers, Ivan Chermayeff said, "It raises the level of quality greatly but it also lowers it from the top end, because people rely on the computer too much and forget that it's really all about ideas. It's not to say that's the end, it just takes a long time for the level to rise again and it inevitably will, it just doesn't happen very easily." Computers make filling space very easy and "clean" a given. Grids can be manipulated so rapidly that process can be reduced to trial and error. Everything auto can be done by everybody. The truth is, the tech is an Easy button and everyone can buy it and push it.

< push >

What did you think was going to happen? Maybe praypushing big red buttons are the new squeeze stress balls. Staples' "easy" concept is brilliant commentary, until they did not get their own joke and started making actual buttons. The question and the point is, why would educators bother teaching something everyone can do? What is exceptional craft? What are innovative ideas? Because the easy parts of digital design should be givens.

Even Apple, which idolizes the genius of its designers, has moved all production overseas where manufacturing response to design decisions is overnight, allowing production flexibility to meet designers' demands. Writing for *The New York Times*, Keith Bradsher notes, "Though Americans are among the most educated workers in the world, the nation has stopped training enough people in the mid-level skills that factories need, executives say." Bradsher goes on to note a conversation between President Obama and Steve Jobs where Jobs noted that this production would never come back stateside.

The point is, Tradesman vs. Thinkers is not about hierarchy, but it does seem that college as an entity should focus more on functioning as Idealand, even for those who are more interested in employment than exploration.

In *Technopoly*, Neil Postman argues that reducing education to job training was the irresponsible final bow when the system decided it had no further ideas. "In brief, we need students who will understand the relationships between our technics and our social and psychic worlds, so that they may begin informed conversations about where technology is taking us and how."

When I was in the first throes of design school, I learned that the two flagship graphic design mediums, historically speaking, were books and posters. So, for the period during which design was print-based, printers functioned as the craftsmen, the people who made what the designers envisioned. (Of course, design was considered a "trade" until relatively recently, so an argument can be made that graphic designers themselves were considered craftsmen.) Regardless, there was a division of labor coupled with interdependence, shared knowledge, strong lines of communication, and a general sense of what each party was doing. Graphic Design adapted to Interactive's arrival by simply absorbing it; "interactive" became a subhead. Young designers who could do any programming were hired to do web, but the trouble was that tools had not evolved and web design was clunky (think, fonts). Additionally, the best designers were the best because they were good at print. The end result was that getting hired was more about being a designer and a programmer than it was about being an elite designer.

But thankfully, the industry is shifting again. While the tech evolves further and programming languages and tools proliferate and become more nuanced, the ability to master both design and programming is rare, making Designers who Design a valued commodity again. In short, programmers may take on the role once held by printers: craftsmen who build the things designers visualize. (Adobe's CS6 versions include updated support, hinting, and crossover tools for a range of interactive applications). Ever since *Wired* canonized the death of the web and all that jazz, the ability to create app-based guided experiences requires a specialized skill set beyond the days of casually knowing some HTML and CSS. The role of a designer MUST be primarily that of a thinker, a visualizer, a concept-first maker. And that is something you cannot learn from a tutorial or a checklist: make interesting work. While understanding some programming will obviously benefit all designers, we argue being able to *work with* programmers is more intrinsically relevant.

So, if graphic design's two mediums are books and posters, and if print is dead, then designers have two, not mutually exclusive, paths. Graphic design can absorb new technologies and new mediums. And, designers can work as artists. That is part of the future too. All technology is embraced upon inception as a tool of artistic expression, chosen for its unique potential. As the industry mainstreams the new forms, artists move on, only to return to dead mediums after technology evolves and drops outdated processes. It happened with letterpress, screenprinting, and books. Design is the last medium for remixing because design does not remix. It just moves on like Lupe Fiasco bastardizing Modest Mouse.

And we're moving.

51. The problem is, instead of teaching students how to understand media and technology from a historical, research-driven, and informed self-aware foundation, those who start working with tech right off the bat never learn how to manage it. NOISE for sake of NOISE is a TV that submerges you to sleep, a cell phone that text alerts you every five minutes, an app that replaces an intuitive sense of navigation. In case you didn't know, your iPhone does: Apple knows more about you than you do yourself. And If you develop sexual relations with your phone, don't be surprised. Phone sex, blow up dolls, and interactive porn bore a beautiful sounding child in Siri. The most frustrating part is that students are self-cognizant of their efforts to reach unconscious mindless numb states. Postman claims that technology engenders individuality, which is at odds with collegiate education, which should be about communal learning. In fact, Postman questions whether personal computers should be explicitly abandoned. But like all addictions, reliance on mediated sedatives isn't an easy habit to unlearn; "media junkie" isn't often the Mayo Clinic diagnosis.

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And no, it's not okay. "In merely terrestrial terms, programming the environment means, first of all, a kind of console for global thermostats to pattern all sensory life in a way conducive to comfort and happiness. Till now, only the artist has been permitted the opportunity to do this in the most puny fashion. The mass media, so called, have offered new materials for the artist, but the understanding has been lacking. The computer abolishes the human past by making it entirely present. It makes natural and necessary a dialogue among cultures which is as intimate as private speech, yet dispensing entirely with speech. While bemoaning the decline of literacy and the obsolescence of the book, the literati have typically ignored the imminence of the decline in speech itself. The individual word, as a store of information and feeling, is already yielding to macroscopic gesticulation." This commentary from *War and Peace in the Global Village* by Marshall McLuhan offers a spark in the gloom for Designers as Artists. With artists claiming dead communications mediums, and with language becoming a dead language, the very nature of words becomes a more precious (and startling) tool in the hands of designers, should they choose to produce work more traditionally classified as "Art."

In the rush to turn designers into programmers, the mediums and technologies that had been associated with graphic design died as far as mass communication goes. Books on True BASIC are being burned. Print is sheltered in museums and in the libraries / basements of avid collectors. The homeless are resorting to the warmth of bouncing radio waves. "According to a recent survey reported in *The New York Times,* stamped mail, which has earned the contemptuous sobriquet 'snail mail,' is down almost 50% since 2001, and it continues to drop by about 8% to 10% a year," writes Jack Shakely for *The New York Times* in *Empty Mailbox Blues.* As mail joins other dead technologies, artists claim it as one of the discarded print genres ripe for remaking. Printmaking, book arts, alternative photography, and paper-making classes enjoy blockbuster

status in art schools, their ranks swollen with frustrated designers who wish they could just make someTHING, dammit! Designing for these mediums is still a relevant skill, and at least a portion of designers will find careers merging design with printmaking production methods as a group of their compatriots learn both design and programming. This raises the very real career possibility of Designer as Artist with outputs including *Of Montreal's* merger of dead tech; art, design, and illustration blending in their screenprinted box set of cassette tapes (with links to downloadable versions of the tracks).

In Baltimore, the printing capital, letterpress was saved by brides. This is because when you think of marriage, you think of script, and what makes love more enticing than paper with a kiss impression? After offset printing, the need for Vandercook proofing presses and Heidelberg Windmills diminished and these apparatuses found themselves out on the street. Art schools salvaged them. A similar situation happened on the photography front. With the advent of "film-less" photography in the late seventies, all darkroom methods became alternative processes, and to study them meant their intended use was toward artistic ends. Design follows at the heels of technology, ergo, many students who enter the world of Print are frustrated graphic designers. The relevance of all this to the mainstream design industry is irrelevant. These tools can be used to create forms for any conceptual reason the designer dreams, but it also allows the maker to simply produce beautiful, meaningful work for noncommercial reasons.

The New York Times documented a response to ebooks by publishers who had long combatted the digital age through the cheapest version of print they could scrounge up. Instead of cutting costs, publishers are now embracing books as physical art objects, opening opportunities to designers to work in print mediums while pushing the boundaries in terms of costs.

52. Mike, can you call me back in ten? I have another—OMG.

Ebooks have eliminated printed books as the cheapest form of mass publication, but for those who value books as objects, as art, as an experience, designers as artists as printmakers are positioned to respond. "When people do beautiful books, they're noticed more," said Robert S. Miller, the publisher of Workman Publishing. "It's like sending a thank-you note written on nice paper when we're in an era of e-mail correspondence," documents Julie Bosman in *Selling Books by Their Gilded Covers* for *The New York Times*.

In the 1959 speech, *The Two Cultures,* writer C.P. Snow commented on how the sciences, arts, and humanities have increasingly become segregated, "with the artist looking at the scientists as if they were boorish Philistines, while the scientist regarded the artists as clueless Luddites."

(In service of an accurate portrayal of technology, design, and education all being wrapped in a simultaneously destructive and mutually beneficial relationship, we should point out that the Luddites have gotten an unfair, bad rap. The war fought by the Luddites was more about the use of technology in a class war sense than it was anti-technology as an idea. In fact, the actual Luddite position was extremely progressive and would have likely found support in the Occupy movement.)

Technology itself is conscienceless. "Technology giveth and technology taketh away" refers to control, wealth, and class, but also to winners and losers at a cultural level. Tech provides efficiency, intrigue, and comfort; and if progress in these areas outweighs perceived deprecation, as it often does, then we're left with a situation like Christopher Nolan's *Inception* or Dickens' opium dens—hoards of people desperate to dream their lives away. Tech is not inherently good or evil. It is a tool.

It has a creator and a user and its influence, its benefit and its destructiveness, depend on people. The point is, technology has the potential for power and, in the design field, its influence on ideas and craft is enormous.

When technical calculation is considered superior to human judgement, we have a situation where tech is in control of thinking, deciding, executing, and distributing, which means every aspect of invention and craft. If charcoal is a tool to *help* man see, cook, and move, consider what it would mean for a CPU to conceive and execute the rudimentary sketches for Gericault's *Raft of the Medusa.* Technology and compassion seem at odds. At what point is humanity squeezed out of the deal? When can we confidently say culture is dead?

We will resist the urge to answer that question.

What we're getting at here is that The Show won't work without both Pinky and Brain. (If this analogy seems offensive toward those with tech backgrounds, remember both are lab mice, both are caricatures, and their relationship is symbiotic.) Still, "One is a genius / The other's insane." Humor is the result of their extremes in knowledge and attitude, creating the necessary tension for invention. World domination would conceivably work if Pinky didn't keep getting in the way, and this is exactly the situation technorati blame humanity for. It is akin to debating the merits of island stranding with Sheldon Cooper, who would probably know how to sustain life and signal rescue planes but at the price of carrying him around because he hates sand between his toes; or someone like Mitch Hedberg, who knows how to wrap dope with a banana leaf, enabling a care-free final days of fuckitall bliss. Chorus: "And we'll all float on ok…"

53. "And so two opposing world-views—the technological and the traditional—coexisted in uneasy tension. The technological was the stronger, of course, but the tradition was there—still functional, still exerting influence, still too much alive to ignore… With the rise of Technopoly, one of those thought-worlds disappears. Technopoly eliminates alternatives to itself in precisely the way Aldous Huxley outlined in Brave New World. *It does not make them illegal. It does not make them immoral. It does not even make them unpopular. It makes them invisible and therefore irrelevant. And it does so by redefining what we mean by religion, by art, by family, by politics, by history, by truth, by privacy, by intelligence, so that our definitions fit its new requirements. Technopoly, in other words, is totalitarian technocracy. As I write (in fact, it is the reason why I write), the United States is the only culture to have become a Technopoly…Huxley himself identified the emergence of Henry Ford's empire as the decisive moment in the shift from technocracy to Technopoly, which is why in his brave new world time is reckoned as BF (Before Ford) and AF (After Ford)."—*Technopoly*, by Neil Postman.*

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America blindly welcomes the mystery box of technology at the expense of the human, or in human language, at the expense of wisdom.

Culture is a way of life as determined by a group of people. Once technology becomes a boss, we will cease to have any culture, or rather, it will become subservient in our reliance on technology for everything. "It is not merely a matter of tool against tool—the alphabet attacking ideographic writing, the printing press attacking the illuminated manuscript, the photograph attacking the art of painting, television attacking the printed word. When media make war against each other, it is a case of world-views in collision," writes Postman. People, determine everything. This includes and transcends The Illustrator Star. We must help our students produce work that does not chain itself as a slave to the details of the tools. Our objective is timelessness in our work, and to teach that, we must teach with tools and examples that go beyond the immediate now.

Tadpole—>Frog—>Something—>Something—>Primates—>Humans—>Computers

Paul Graham comments in his article *Hackers and Painters*, that programmers need to be willing to make buggy programs, much like a painter quickly sketches his ideas first. "I think hackers just have to resign themselves to having a large random component in their reputations. In this they are no different from other makers. In fact, they're lucky by comparison. The influence of fashion is not nearly so great in hacking as it is in painting." Graham argues that hackers are more like artists than "computer scientists," with respect to thinking, conceiving, and making and we would like to extend his argument to

*54. "Students of digital communication see the emerging acceptance of whimsical signifiers as inevitable, if not always desirable. 'They're part of the degradation of writing skills—grammar, syntax, sentence structure, even penmanship—that come with digital technology,' said Bill Lancaster, a lecturer in communications at Northeastern University in Boston. 'Certainly I understand the need for clarity. But language, used properly, is clear on its own.'—*If You're Happy and You Know it, Must I know, Too?, *by Judith Newman.*

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point out that it is the Human Element (not the very real and very disturbing advertising campaign from Dow Chemical) that is the force behind any medium. C++ isn't technology any more than it is an imperfect and slightly better than Average language. What we're saying is, it would be better to live in the fascinating and flawed world that humanity built than to live in a beautiful condom of monosynaptic drones.

;) ;) ;)

G | PRESENTNESS

First thing's first, where are we?

German author, Thomas Mann presciently criticized fascism in the short story *Mario and the Magician*, in which a family on vacation to an "overly-nationalistic" (pre-Mussolini) Italy witnesses the sardonic actions of a hypnotist on tour. The cruelly manipulative magician is eventually assassinated by a humiliated and enraged everyman named Mario, in a symbolic rite of liberation of the magician's audience. Needless to say, Mann was eventually exiled to Switzerland.

Mann's piece is as much a pieceasstatement on artistic responsibility, as it is a treatise on a nationalistic Italy. The magician is talented, but self-serving, an absolute abuser of power. As cheesy as it sounds, artists see the world better than anyone else, and even when that is not true, they are better at communicating what they see than anyone else. That is actually our job description. Wyndham Lewis described it this way: "The artist is always engaged in writing a detailed history of the future because he is the only person aware of the nature of the present."

Artistic responsibility for a designer and an educator might include the following: Graffiti Research Lab and Anti Advertising Agency addressing visual noise pollution with light stencils, JR uniting communities with big portraits and wheat paste, David depicting the death of French revolutionary Marat, Picasso painting the Spanish Civil War in *Guernica*, Goya poking at the foolishness of 18th century Spain in the 80 aquatint print set *Los Caprichos,* Lester Beall and Dorothea Lange

reporting on America as a state of despair, Kevin Smith humorously recording epidemic apathy in *Clerks*, Christo and Jeanne-Claude gaining the support and financial backing to wrap German's Reichstag (Parliament), Ed Murrow tucking America in at night with a slingshot, Charles Burns' inducing nightmares and sympathy in *Black Hole*, or Green Day's *21st Century Breakdown*, a contemporary rock opera described by frontman Billie Joe Armstrong as a "snapshot of the era in which we live as we question and try to make sense of the selfish manipulation going on around us, whether it be the government, religion, media or frankly any form of authority."

Some of these references are more graphic design than others. But all involve design decisions and are just as valuable in the classroom as *The Design of Dissent* from Mirko Ilic and Milton Glaser.

Ivan Chermayeff on the role of design beyond Prettiness: "Most people, in particular politicians, have a very short term view and the world can't afford it, we can't afford it. Its shocking to read that we plan to cut CO_2 emissions by fifteen percent in the next thirty years; who says we have thirty years! Designers should do something about it, by their way of thinking which is problem solving. Designers need to be activists and do whatever it is they can. Creative people should get more involved and contribute to something instead of just massaging their egos."

A key element for Foundation level discussion that applies to all art and design mediums, PRESENTNESS is ultimately an awareness of reality. Immediately, we gravitate toward a discussion of whether digital / alternative / cyber reality is a parallel and valid Real. Ayn Rand, Aldous Huxley, George Orwell, Kurt Vonnegut, Phillip K. Dick, Yevgeny Zamyatin, Margaret

55. We could fill a textbook with comments on America's non-critical gulping of technology, but the largest issue is that many students are unaware of their relationship to their tools. Information reduced to noise. The context in schools was eloquently discussed in Technopoly, *and it's a far more damning concern than a lack of context; it is an inability to see, understand, and control tools resulting in a culture enslaved to technology. Postman's concern (and eventual solution) primarily ties to schools: "The curriculum is not, in fact, a 'course of study' at all but a meaningless hodgepodge of subjects. It does not even put forward a clear vision of what constitutes an educated person, unless it is a person who possesses 'skills.' In other words, a technocrat's ideal—a person with no commitment and no point of view but with plenty of marketable skills." Design educators have the ability to bridge science and art to train new Loudspeakers, those who can write a new mass culture narrative.*

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Atwood, Lois Lowry, and even Michael Crichton were all interested in presenting a futuristic reality and entertained the idea of dystopia. We argue that we used to know what Reality was, and the fact that every art school discussion of Presentness becomes a question of the Real is unsettling. Remember seeing The Matrix for the first time and unconsciously checked the trees for pixels on your way home? No matter how much viewers KNEW it was a film, a story only, it successfully portrayed an alternate reality forcing an honest consideration of the extreme hypothetical. Here's Marshall McLuhan in *Understanding Media*: "To have a disease without it's symptoms is to be immune. No society has ever known enough about it's actions to have developed immunity to its new extensions or technologies. Today we have begun to sense that art may be able to provide such immunity. In the history of human culture there is no example of conscious adjustment of the various factors of personal and social life to new extensions except in the puny and peripheral efforts of artists. The artist picks up the message of cultural and technological challenge decades before it's transforming impact occurs. He, then builds models or Noah's arks for facing the change that is at hand. 'The war of 1870 need never have been fought had people read my *Sentimental Education*,' said Gustave Flaubert."

Before we discuss the "Action," we must agree on the imperative of the "Call To." And before that, we must agree that artists and designers and educators of artists and designers are positioned and equipped for cultural interventions.

Like action verbs, our work must DO something. The Yes Men, a "culture jamming activist duo," issued a public apology to the victims of the Bhopal disaster by posing as spokesmen for the responsible party, Dow Chemicals. They also published a free, "special edition" of *The New York Times* with articles claiming the War in Iraq was over and all the other news "we wish

were real." When the public learns of these activist pranks, the universal response seems to be congratulatory. Problems that have been shoved outside of mainstream consciousness do not disappear, and The Yes Men aim to bring them to the public's attention.

We face the walls of screens in classrooms and become one of many sources to be accessed, or not, based on the whims of shrinking attention spans. Fine. The fact that students would rather be on Facebook and drift in and out of a lecture is not surprising; it used to be comic books hidden in textbooks but the end is basically the same. The real link between a decline in Presentness and design education is a moral question: do design educators bear a responsibility to teach on the biggest contemporary issue related to graphic design? Aldous Huxley said "Great is truth, but still greater, from a practical point of view, is silence about the truth." And Picasso, "Art is the lie that tells the truth."

We have to speak up. It's in our job description.

And part of the agenda, as designers and educators, is that our students are active participants in an industry that has contributed extensively to a decline in Presentness. Fortunately, we, and they, are equipped for this.

Consider this typical "disconnect from the real" documented in the article, *Out on the Town, Always Online*, by John Leland.

"At a dinner party with friends in TriBeCa recently, Zander Rafael, 26, barely used his phone at all. Here is what that meant:

At 8:30 he read and answered an e-mail from his sister, who said she could not go to the dinner.

At 8:44 he received an e-mail from the operator of a graffiti tour he had taken that afternoon, asking whether he liked it. He decided to wait until later to respond.

At 8:50, at the urging of his host, Spencer Lazar, he went on Craigslist to look for a runner's bib to compete in the New York City Marathon. To a post asking $500, he offered $350.

At 9:35 he got a text message from a friend: 'Vegas next weekend?'

At 9:50 he answered: 'Boston next weekend.'

At 10:03 he received a text: 'Haha.'

At 10:04 he answered: 'Why are you laughing? Boston is a serious town.'

At 10:12 he received an e-mail from the bib seller on Craigslist, declining his offer.

At 10:15 he checked on whether his friend Toby had made a move in their online chess game. Toby had not.

A few weeks later, at a bar in Dumbo, Randy Hunt and Claire Beaudreault were having a comfortable conversation, so they did what came naturally: They whipped out their cellphones and began communicating with other people.

Ms. Beaudreault, 30, saw that she had a text message from her father, so she punched in a reply.

Mr. Hunt, 29, resumed a continuing text exchange with his girlfriend about dinner plans.

'Whatever you want to do,' her text read.

'How about 9 at Tue Thai?' he answered.

56. "Tradition is, in fact nothing but the acknowledgement of the authority of symbols and the relevance of the narratives that gave birth to them. With the erosion of symbols there follows a loss of narrative, which is one of the most debilitating consequences of Technopoly's power."—Technopoly*, by Neil Postman.*

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Mr. Hunt and Ms. Beaudreault resumed their conversation seamlessly, as if the interruption
had never happened. Neither minded the lapse in the other's attention. Within minutes, their
thumbs were busy again...It's hard to give it up, hard to stop checking, hard to stop that
thirst for awareness."
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A portrait of a conversation. Not a particularly glaring example of the influence of technology on Presentness, but interesting in that it was printed by The Times in an article detailing the subtle and absolute invasion of contemporary forms of communication into every aspect of New Yorkers' daily lives. Our point is, people are never where they are and it is an important enough topic to garner the Times' attention.

This is not an indictment of certain forms of communication or the fact that many people spend more time engaged in a simulacrum of interaction than actual interaction. No, rather consider how often you personally jump into netland and how much of that activity is valuable. Consider the plotting of Zander Rafael's evening in terms of internet communication knit into physical communication. This is not an indictment of specific behavior, rather we argue that the need to be connected to everyone is trumping any physical reaction with someone. As design educators, we have the ability to impart more than just how to use tech tools and even more than how to use the tools to create good work. We have the ability to teach students to consider Presentness in their lives and examine how they contribute to a culture blissfully unaware of its detachment from the real.

Says critic Chuck Klosterman, "Taoists constantly tell me to embrace the present, but I only live in the past and the future; my existence is solely devoted to (a) thinking about what will happen next and (b) thinking back to what's happened before. The present seems useless, because it has no extension beyond my senses." This meta look at Presentness matters, because while it is important to consider in relation to design and technology, there is a broader cultural tendency to be elsewhere.

The pornography industry seems to be at the forefront of mass communication technology innovations, quickly embracing new potentials for distribution and interactivity. If we want to look at communication forms serving as disconnects from the real, we should look at the industry dedicated to simulated interaction. Klosterman again: "...Pam Anderson (is) so essential to our times: She's not a real person, but she's still more real than any sexual icon we've ever had. Pam Anderson is a mainstream, non-subversive porn star who actually does all the dirty things her disciples fantasize about. Marilyn Monroe was the perfect vessel for an age where it was wrong to want wild, easy sex; Pam is the perfect vessel in an age where not wanting wild, easy sex makes you a puritanical, born-again weirdo." Culturally, we have defined Sex as a tool of American consumerism. *Mad Men* takes us behind the scenes and says, "You're smart enough now to appreciate the drama of how all this works." Saturated with images, inundated with information leaving the wizard's curtain in perpetual tatters, the porn industry has exploited technology to give us what we want: us. Reality. But a non-messy sexed version of reality. Fake is now bad. Ideals are bullshit. Klosterman discusses the porn industry online shifting toward *convincing* stimulation. Moving forward from idolizing feminine form in a romantic way with Monroe, to lavishly participating in a glutinous affair with Anderson, and finally punishing ourselves with a call for imperfect and often garish sexual tendencies with ordinary people

57. Not everyone feels that students need to learn a meta perspective on technology, rather some feel that faculty should meet students where they are at, abbreviated attention spans and all. Cathy Davidson, English professor at Duke, pits the advantages of new literacy over old. Finding the term paper antiquated and impractical, she has her students write in the form of a blog. Matt Richtell writes in Blogs vs. Term Papers*, "'Writing is being murdered. But the solution isn't blogs, the solution is more reading,' Mr. Fitzhugh says of Professor Davidson." We argue that a decline in the ability to parse, create, or discern meaningful content requires action, not acquiescence.*

just like ourselves—the porn industry increasingly shifts toward "secular." Coupled with the democratic ability to contribute online, porn has never dealt with access and feasibility of sexual reality on such a large scale. "Pam tells Tommy Lee, 'You're the best fucking husband on the planet,' and they get married with the aid of a spaceman. But if you had a transcript of this film, you'd find that there's one phrase that appears more often than all others: 'Where are we?' This question is asked over twenty times, and it's never answered. They're on a boat, they look at the horizon, and they say 'Where are we?' And if someone wanted to use Pam as a metaphor for the decline of American morality and the vapidity of modern relationships, they could point out that phrase as an illuminating example of a lost generation. 'Where are we, indeed,' such a critic might write in the last paragraph of an essay…We don't need Pam to know where she is, she helps us understand where we are." In answer to Pam, the truth about "the vapidity of modern relationships" is that we are everywhere with everyone, but only a little. This applies simultaneously and evenly to the people we are really with and the people we are really wired to.

Not all interaction is created equally, although we have made it so at the expense of Presentness.

Streaming conference lectures and online courses makes school cheaper and easier, and Google+ enables Circles and 9-way video chat in mimicry of physical interactions. Technology shifts mediated communication to mitigated communication to communication as entertainment. Chuck Palahnuik wrote, "People used what they called a telephone because they hated being close together and they were too scared of being alone."

58. 50 feet. 250 calories. 21 days until—FLUSH—250 mg.

Please note again, Palahniuk was talking about telephone-pole telephones.

And yet, with all this simulated interaction, with all this multi-tasking, can anything demand our full attention? Even sex anymore? And if it does not, how does your lover feel about mixing thrusting with texting? We may have become a generation of multitaskers, but we have absolutely become a generation that places no value in Presentness, despite our pursuits of Reality and Connection.

Ted Kaczynski—Unabomber Kaczynski—was a leading intellectual, educated at Harvard and a member of the faculty. He lost it. Went infuckingsane. He perceived something about the world that spooked him so much, that he moved to the wilderness, became a survivalist outside the reach of all technology and culture in a cabin he built, mastered mail bombs, and began sending them to various intellectuals and tech professionals. His intelligence translated into murder, as he remained at large for years. It bought him time to complete his opus, *Industrial Technology and Its Future*, and gave him leverage to have it published in *The New York Times* when he agreed to stop the bombings. This manifesto is simply brilliant. Imperfect as a piece, but Kaczynski's perceptions of the influence of technology are completely accessible and prescient. His point, in brief, is that America's relationship with technology is out of control and that only by destroying the tech-driven system and starting over can the culture survive with a sense of humanity intact.

For example, Kaczynski argues that new technologies are introduced as optional, but they become essential. Failure to participate eventually eliminates citizens as citizens. Consider how owning a car has become an imperative for survival.

If we extrapolate to the present, think about the number of job leads, wedding announcements, and relationships that hinged on an active Facebook account.

Before people had any perspective on what was happening, cities were designed on grids created for automobiles. The concept of "traffic" and then "road rage" materialized along with pollution and smog and tailpipe suicides. As Americans bought one, then two, then more essential vehicles, home design drastically adjusted to accommodate their storage. Parking garages, Arcade Fire's album *Suburbs*, strip malls, and all that jazz. And then, entire industries built upon the maintenance, buying, selling, glitzing, constructing, advertising, and Blue Booking of vehicles. In America, cars are like, our *thing*.

Kaczynski turned it into a maxim. "In the future, social systems will not be adjusted to suit the needs of human beings. Instead, human beings will be adjusted to suit the needs of the system."

The automobile is no longer an option. Even employers ask if you have one. A Driver's License is the standard form of identification. A high schooler expects his parents to buy him one as an initiation right, one of the first manly steps in his coming of age. Our society has become so dependent upon it, it could not function without. All the while, it is destroying values, environments, temper, and our economy. Reforming our transportation system with the automobile has in fact caused a myriad of new problems, all of which have spawned further reformations, such as emissions test centers, stricter laws on drinking while driving, seatbelt requirements, taxes, parking violations, etc. Reformations to reformations are a series of patch-it repairs not unlike the insidious spread of spores from kicking a mushroom.

Kaczynski argues that all technology gets out of control, and that if it is limited, while it is introduced, there may be hope to keep innovations at the level of tools. His point is that America has a unique perspective on tech that has created an irreversible subservience. We have mentioned Facebook and cars, but also consider cell phones (now smartphones), email, and how available you are expected to be at all times to employers, family, friends, and in the case of all types of makers, availability to fans.

The standard response time for an email used to be 24 hours. Now, an hour is pushing it.

These examples show how a technology worms its way into becoming a precedent prior to our realization of any problems in relationship to its benefits. Americans instinctively treat technology as their *Second Savior*. What people do not understand is that their quality of life may improve for a hand, but if they keep playing, they'll lose and get sucked into redemption. Reformation, Kaczynski argues, is futile. "It would be (hopelessly difficult) to reform the industrial system in such a way as to prevent it from progressively narrowing our sphere of freedom. There has been a consistent tendency going back at least to the Industrial Revolution for technology to strengthen the system at a high cost in individual freedom and local autonomy. Hence any change designed to protect freedom from technology would be contrary to a fundamental trend in the development of our society. Consequently, such a change either would be a transitory one—or, if large enough to be permanent would alter the nature of our whole society...Moreover, since society would be altered in a way that could not be predicted in advance...there would be great risk. Changes large enough to make a lasting difference in favor of freedom would not be initiated because it would be realized that they would gravely disrupt the system. So any attempts at reform

59. "The typewriter fuses composition and publication, causing an entirely new attitude to the written and printed word. Composing on the typewriter has altered the forms of the language and literature…In a culture like ours, long accustomed to splitting and dividing all things as a means of control, it is sometimes a bit of a shock to be reminded that, in operational and practical fact, the medium is the message. This is merely to say that the personal and social consequences of any medium— that is, of any extension of ourselves—result from the new scale that is introduced into our affairs be each extension of ourselves, or by any new technology…The rise of the waltz,' explained Curt Sachs in the World History of the Dance, 'Was a result of that longing for truth, simplicity, closeness to nature, and primitivism, which the last two-thirds of the eighteenth century fulfilled.' In the century of jazz we are likely to overlook the emergence of the waltz as a hot and explosive human expression that broke throughout the formal feudal barriers of courtly and choral dance styles. There is a basic principle that distinguishes a hot medium like the radio from a cool one like the telephone, or a hot medium like the movie from a cool one like TV. A hot medium is one that extends one single sense in 'high definition.' High definition is the state of being well filled with data. A photograph is, visually, 'high definition.' A cartoon is 'low definition,' simply because very little visual information is provided. Telephone is a cool medium, or one of low definition, because the ear is given a meager amount of information. And speech is a cool medium of low definition, because so little is given and so much has to filled in by the listener. On the other hand, hot media do not leave so much to be filled in or completed by the audience. Hot media are, therefore low in participation, and cool media are high in participation or completion by the audience. Naturally, therefore, a hot medium like radio has very different effects on the user from a cool medium like the telephone."—Understanding Media: The Extensions of Man*, by Marshall McLuhan.*

would be too timid to be effective. Even if changes large enough to make a lasting difference were initiated, they would be retracted when their disruptive effects became apparent. Thus, permanent changes in favor of freedom could be brought about only by persons prepared to accept radical, dangerous and unpredictable alteration of the entire system. In other words, by revolutionaries, not reformers."

Our students enter school thinking their culture is ok, that it is inevitable, that it is permanent. Their interaction with, and through, technology simply IS. This is a call to train our students as fervent revolutionaries as Filippo Marinetti and Wolfgang Weingart and Laszlo Moholy-Nagy once did. Students can be pissed and poor and mope around their parent's basement, or they can be pissed and poor and make fifty foot moo-fuck cow puppets in their parent's basement. If students are already angry about mortgaging ten years of their life to pay for college, can't we push them to discover something beyond job competency? Can their technology—and ours—say something through a domesticated use of communications mediums while crafting a meaningful message?

Kaczynski argues further for an all-out revolution: "People tend to assume that because a revolution involves a much greater change than reform does, it is more difficult to bring about than reform is. Actually, under certain circumstances revolution is much easier than reform. The reason is that a revolutionary movement can inspire an intensity of commitment that a reform movement cannot inspire. A reform movement merely offers to solve a particular social problem. A revolutionary movement offers to solve all problems at one stroke and create a whole new world; it provides the kind of ideal for which people will take great risks and make great sacrifices. For this reasons it would be much easier to overthrow the whole

60. Roland Barthes pronounced the author dead. Marshall McLuhan prophesied that the medium is the message. Postman told Americans they need a tech-eotomy. So. What this means is. When media travels ruthlessly at bullet speeds past MC-primed ears on cruise control, the only message received is that of one blurry fucking sexlessly insipid voice.

61. < VOICE >   < / VOICE >

technological system than to put effective, permanent restraints on the development of application of any one segment of technology."

The problem with technology is it isn't human. We can make the robot a humanoid, we can make the humanoid human-like, and make the human-like humanoid more human-like, but you sort of wonder, what's the point? Education is intrinsically for the benefit of people. Humans. Warm bodies topped with warm brains assimilating and storing and processing new things inside the said brains' folds. Technology is not intrinsically for the benefit of people, or anything else. Siri really couldn't give a fuck where the nearest Home Depot is. Technology can exist in a vacuum. With the exception of vibrating sex toys and vibrating razors, utensils designed for uniquely human control with their aim turned inward on the inevitable humanness of humans, technology is frequently created by human governance in service of human interest, but there is nothing intrinsically human about technology as an institution. Unsurprisingly, human seers have written cautionary tales of tech off a leash. Many dystopian world views integrate angry tech as a fundamental element in the creation or functioning of the prophesied World.

This is not primarily a call to design with humanity, but we need to approach tech like a fine artist—"What can I make this say?"—and not like an end unto itself. At the same time, we need to stop treating the Internet's flavor of communication and information availability like an Option. For our students, it is a default. Despite ever-increasing numbers of applicants to colleges, there is a rising sentiment that college is not an essential. Arguing that it makes Students into People holds little weight when exposure to Anything can happen while students are in their pajamas eating Frosted Flakes.

62. "Those who are concerned with the program 'content' of media and not with the medium proper, appear to be in the position of physicians who ignore the 'syndrome of just being sick…' The new media and technologies by which we amplify and extend ourselves constitute huge collective surgery carried out on the social body with complete disregard for antiseptics. If the operations are needed, the inevitability of infecting the whole system during the operation has to be considered. For in operating on society with a new technology, it is not the incised area that is most affected. The area of impact and incision is numb."—Understanding Media: The Extensions of Man*, by Marshall McLuhan.*

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"The revolution against technology will probably have to be a revolution by outsiders, a revolution from below and not from above," concludes Kaczynski. In other words, the artists.

(We must state here clearly that our position in the paper is not that technology in the design classroom cannot be reformed, because it can, though it probably won't. Rather, we must first be willing to reevaluate priorities, reset, and then rebuild. While we do not support the means exercised by Ted Kaczynski, the fact that a leading intellectual resorted to such extreme methods to broadcast his message means that it is likely worth grappling with his thesis. Because we are looking at how technology is used in design, colleges, and design classrooms, we feel it is imperative to examine the possibility that *controlling* these technological resources is impossible.)

"I am amazed at how obediently people accept explanations that begin with the words 'The computer shows…' or 'The computer has determined…' It is Technopoly's equivalent of the sentence 'It is God's will," and the effect is roughly the same," writes Neil Postman. American (design) culture has shifted toward a non-critical interaction with technology. Having not known design to have any connection to the physical world, students accept the limitations and trends of an all-digital landscape without question, just as the medical industry struggles to find a place for human observation in a land of machine diagnoses.

63. "A physical book is merely a container, and its printed form and shape is a concession to the marketplace…what's important is the knowledge…to talk about one format being superior to another is silly."—Print is Dead: Books in Our Digital Age, *by Jeff Gomez.*

64. If McLuhan and Gomez were monkeys they'd probably fling shit at each other. Gomez does not believe that the medium is the message. If Gomez had his way, artists would spend less time questioning what mediums are and simply adapt to them. McLuhan argues instead that Information blur is tied more to some mediums than others, that not all mediums are created equally, and if we may extrapolate, that designers are responsible for considering both the mediums and the messages we craft.

65. "It's time to start thinking, however, about the best literary uses for these devices. Are some reading materials better suited to one platform than another? Does Philip Larkin feel at home on an iPad, and Lorrie Moore on a Kindle? Can I make a Kay Ryan poem my ringtone? Will any gizmo make 'The Fountainhead' palatable? Books used to pile up by my bedside; sometimes it now seems that gadgets do, the standby power of their LED lights staring at me like unfed dogs."—The Way We Read Now, *by Dwight Garner.*

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In Europe, student Facebook Activists are pulling out. Facebook owns the largest source of human data in history, and these invaluable data sets covering entire demographics are used internally and sold externally. In an Interactive Foundation course, we have our students invent and write a character based off a Facebook profile—our students have nicknamed it "The Stalking Project"—then generate an info graphic based on this person. When dissecting data from a social networking site already embedded in their lives, students suddenly start to wrestle with the system from the perspective of the interactive designers who built it, as well as from the perspective of the designers who benefit from purchasing the data gleamed through the system.

Others argue that users are engaged in multi-tasking, that contemporary generations with their Twitterpods exist in two worlds simultaneously, but increasingly REALITY SEEMS LIKE FILLER in between Tweets, that anytime reality is downplayed, Presentness declines. We talk across the table when we can't think of anything clever to say online. While showing Pink Floyd's The Wall during work time in class, a student wrapped up early and sat facing the screen for a full hour, the whole time cradling an iPad running a special screening of Facebook. I never saw her look up, though after class she claimed to have "loved it."

Chuck Klosterman paints the concert-going experience as being in service only of something external: "So many of the rock concerts I've attended have been filled with people who were there only to be there, who just wanted to be seen by other people who were there only to be there. They want to be able to say, 'I saw the Vines at the Mercury Lounge before they released Highly Evolved, and they already sucked.' They want to say, 'I saw the Strokes right before they started to get

66. When will students realize that technology is their bitch? Just because a student has a personal copy of software doesn't make them a good designer. Until we invent Adobe SubVersion, schools need to teach students how to design, and that requires educators to teach about tuning into and then dissecting the noise, in part, by considering how mediums impact messages.

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serious, and it was amazing.' They want to say, 'I saw Jane's Addiction on the Nothing's Shocking tour, and I thought I was seeing the new Zeppelin. But then I saw them again, and they sucked.' Half the people who attend concerts only go so that they can tell other people that (a) certain shows were amazing, and (b) other shows sucked." If a tree falls in the forest and nobody tweets it...

A critical perspective is one which is both Informed and Self-Aware. Those things are connected. Democratic platforms for vocalizing commentary are available to anyone with a few hundred dollars for a tablet. (Of course, graffiti was available to anyone with cardboard, a knife, and a $3 can of spraypaint, but the internet absolutely has opened up mass communication.) Wikipedia is an entire community fact-checking one another to create a library of vernacular information. Facebook is, sometimes. Twitter, again is fantastic for sharing links. IV Drip texting, is not. Magazine subscription used to be targeted to an occupation, a hobby, or region. "Because I can" was kept at bay for reasons involving public image, money, or morality. So when there are no morals or money factoring into an interactive 4D experience, it's like a drunk losing inhibitions. All that matters is that you're "There" and "Contributing."

History and perspective teach us that there is a level of focus and attention, especially at the level of students, that is being lost in design.

67. "The Greek myth of Narcissus is directly concerned with a fact of human experience, as the word Narcissus indicated. It is from the Greek word narcosis, or numbness. The youth Narcissus mistook his own reflection in the water for another person. The extension of himself by mirror numbed his perceptions until he became the servomechanism of his own extended or repeated image. The nymph Echo tried to win his love with fragments of his own speech, but in vain. He was numb. He had adapted to his extension of himself and had become a closed system…To behold, use or perceive any extension of ourselves in technological form is necessarily to embrace it. To listen to radio or to read the printed page is to accept these extensions of ourselves into our persona system and to undergo the 'closure' or displacement of perception that follows automatically. It is this continuous embrace of our own technology in daily use that puts us in the Narcissus role of subliminal awareness and numbness in relation to these images of ourselves. By continuously embracing technologies, we relate ourselves to them as servomechanisms. That is why we must, to use them at all, serve these objects, these extensions of ourselves, as gods or minor religions. Physiologically, man in the normal use of technology (or his variously extended body) is perpetually modified by it and in turn finds ever new ways of modifying his technology. Man becomes, as it were, the sex organs of the machine world."—From Gadget Lover, *in* Understanding Media: The Extensions of Man*, by Marshall McLuhan.*

Ask them to make like a tree and vector it, they're fine. Put students in a group and tell them to invent a tree, and resistance grows. Employers' two biggest complaints about hiring students (that they have mentioned to us) is that while they might be great formalists if left alone in a glass box of isolation, they struggle to create as part of a team. (The other deficiency is writing.)

The American education system is commended for its liberal arts approach to a holistic perspective and education is treated as a Choose Your Own Adventure book, but should college be about more than just self-discovery? We argue it should also be about discovering other people. After all, there are many of them. Discovering how performance art relates to graphic design or art in general to psychology is a personal concoction of brain ingredients that, while great in terms of meeting people and perspectives, it's also a highly individualized, trail-blazing approach to education. "Me me me me, is all you think that I care about," sings *Louis XIV*. "I am here for me!" Students, and especially art and design students, often do not learn how to work in groups. This, coupled with the fact that designers and artists drill personal skills out of a necessity to develop voice and craft, creates individualized visions that do not always mesh with outside perspectives. But design has always been collaborative, with team members in the role of clients, proofreaders, photographers, art directors, and illustrators. Moreover, as many designers begin working in part as fine artists, the applicable trends toward collaboration and community art will likely transfer into design.

We agree, that the Type I level is probably not the best time to implement collaborative work. With the exception of Interactive, foundations classes in general are for learning the rules, mechanics, and traditions. But while drilling practical

68. "Eventually the stories get to the 'design desk,' where a page designer decides how to place this information on the tangible paper page—they decide how to incorporate the news alongside the photographs, graphics, skyboxes, and everything else that really doesn't matter. Their goal is to make the page look pretty; they are akin to architects. Quite simply, they are trying to create a newspaper that can be appreciated by the illiterate. If you subscribe to a daily newspaper, you will notice that—once or twice a year—the paper will run a short story that mentions all the journalism awards that the particular newspaper has won in some kind of quasi-notable journalism contest. Editors run these self congratulatory stories because they think it makes the publication seem credible. However, wining awards in journalism is like winning awards at the Special Olympics. Everyone is a winner…These competitions are especially important to page designers. Since the only people who care about newspaper design are other newspaper designers, they are constantly giving awards to each other. And those meaningless plaques and certificates have become the driving force behind how the world consumes information."— Sex, Drugs, and Cocoa Puffs*, by Chuck Klosterman.*

69. Eminem mocked the media storm that fed from him, acknowledging that this meaningless blur of information has origins:

Everybody, just follow me
Cause we need a little controversy
Cause it feels so empty, without me

70. If only our students had the same perspective on the media noise generating off of Eminem.

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skills, collaboration could surely be integrated at some level. Of course, some students will slack if someone is there to pick it up, but contemporary culture is driven by sharing files, ideas, and images. Students, in our experience, often gravitate toward exploring ideas with others as a reflection of the online communities they take for granted. Projects can be built to utilize these perspectives already at play.

Environment is another consideration. Are the program's facilities physically structured to induce interaction, collaboration, and make sense in terms of work flow? Unsurprisingly, most computer labs are set up to allocate individual workspace but not group space. Are the monitors in the way of seeing the projector, the professor, and other students? Is there a communal lounge? Where are the printers, libraries, cutting stations, and bathrooms? Does traffic flow make sense or could it be manipulated to increase interaction? Is the teacher's station located as a hub, or as a sidebar? These questions impact the design decision that impact the setup for classrooms.

"Since there's no going back—no reverse on the out-of-control locomotive we've created—we've got to dump nitro into the engines. We need to get serious, and I'm here to outline my own personal fantasy: We start with lists of the best lists of boobs. Every Beatles song, along with every alternate take, along with every cover version of every one of their songs and every alternate take of every cover version, all on your chewing-gum-sized iPod nano. Goonies vs. Saw. Every book on your Kindle. Every book on Kindle on every Kindle. The Human Centipede done with the cast of The Hills and directed by the Coen brothers. This will last only a moment. We'll have one minute before pop culture swells and blackens like a rotten peach and then explodes, sending every movie, album, book, and TV show flying away into space. Maybe tendrils and fragments of them will attach to asteroids or plop down on ice planets light-years away. A billion years after our sun burns out, a race of intelligent ice crystals will build a culture based on dialog from The Princess Bride. On another planet, intelligent gas clouds will wait for the yearly passing of the "Lebowski" comet. One of the rings of Saturn will be made from blurbs for the softcover release of Infinite Jest, twirled forever into a ribbon of effusive praise. But back here on Earth, we'll enter year zero for pop culture."—*Wake Up Geek Culture. Time to Die.,* By Patton Oswalt.

Ted Kaczynski doesn't offer a solution in his *Unabomber Manifesto.* Intentionally. He claims that absolutely anything can happen in the wake of a revolution, that the only thing he knows for sure of is that a revolution must happen. The Futurist Manifesto says books and history need to be burned, but after that, the starting over process is not clear. There are a lot of dystopian narratives, a lot of political talk on reformation, a lot of angry moms, nature tapes, and vacation retreats, but little talk on what we should actually do after we punch the red reset button and accept responsibility. Although his language and observations were accessible and accurate, Kaczynski shot himself in the foot with his desperation for a platform, eliminating any chance of receptivity to his call to action. Step 1 is convincing a happy sedated population that things are not okay. Our culture is about as vacantly stretched as salt water taffy. In the tradition of those who have functioned as cultural critics before us—Oswalt, Kaczynski, McLuhan, Postman—we acknowledge that we are offering more alarm bells than solutions. Yet we (and they) realize some solutions will need to be raised as well. Toward that, this is our humble proposal regarding both art programs and design faculty.

RESTRUCTURE FACULTY

"In the United States, as Lawrence Cremin once remarked, whenever we need a revolution, we get a new curriculum."—*Technopoly*, by Neil Postman.

Describing The Art of Distraction, or what we would call the Freedom of Tangents, which is ultimately the Freedom to Fail, Hanif Kureishi writes that financial pressure and cultural homogeneity eliminates needed innovation. His solution is through group interaction. "Most art is either collaborative—the cinema, pop, theater, opera—or is made by individual artists supporting one another in various forms of loose arrangement, where people might find the solidarity and backing they need."

Jonah Lehrer, writing about the creative process for *The New York Times*, discusses the importance of collaboration within modern academia in research papers, noting that papers with multiple authors generate at least twice the number of references as papers with single authors. Papers garnering at least a hundred citations were six times more likely to come from a group of authors. As contemporary issues requiring our attention become increasingly complex, the necessity to treat design as a collaborative process drawing upon an eclectic team of thinkers and makers becomes apparent. Challenges such as The Great Pacific Garbage Patch and space colonization demand solutions outside the purview of traditional graphic design, though designers of various stripes will be involved. Within the field, issues often also require the input of designers with cross-cultural, linguistic, writing, illustrating, printmaking, and programming experiences. If we want students

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RESTRUCTURE PROGRAM

< fact_check > RIP: A Remix Manifesto is a documentary film about appropriation, Copyright versus Copywrong, Disney, and a former biomedical engineer known informally as the sample artist, Girl Talk. Posted online, anybody is encouraged to download it, watch it, improve it, then send it back in. For the heck of it, prosumers turn to their Adobe Suite and render the entirety in flat Plakatstil animation form. Advocating for the opportunity of culture to rebuild upon itself, director Brett Gaylor, a web activist, acknowledges the absurdity of shutting down a child's day-care center because Mickey was unofficially painted on the side of their building. Pop culture, the color pink, Occupy, Adobe Photoshop, The War in Iraq, Top 40, and Abortion are tempered into colloquial media like anxiolytic tranquilizers hidden in a cube of Camembert cheese. In the meantime, Ed Murrow is taking a restless dirt nap. < / fact_check >

When culture cannot build upon itself, it suffocates like a shoe devouring a varicose vein, then breaks. As my good designer friend in Florida impatiently says anytime he receives mail, "Tear. Dat. Bitch."

As much as we value the ability to share files and ideas, the creation of a remixable culture carries questions regarding generation. If symbols are reduced to trends/memes and lose their weight, then communication and community are lessened. Ergo, our job is not only to teach design within the culture of repurposing, but also to encourage the generation of "original" content and to teach the language of semiotics and symbology. As Neil Postman argues, "it is entirely possible to have a

to become contemporary designers, we must teach them collaboration. And part of that means utilizing collaborative faculty to teach across disciplines and to run classrooms like playgrounds.

As influences on our approach to collaboration and as potential models within programs, consider the following:

Bruce Willen + Nolen Strals
Ken Barber + Ben Kiel
Ellen Lupton + Julia Lupton
Ellen Lupton + Jennifer Cole Phillips
Maira Kalman + Tibor Kalman
Mirko Ilic + Milton Glaser
Zuzana Licko + Rudy Vanderlans
Josef Albers + Anni Albers
William Morris + John Ruskin
Pablo Picasso + Georges Braque
Jack White + Meg White
Edward Weston + Tina Modotti
Christo + Jeanne-Claude
J.R.R. Tolkien + C.S. Lewis

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market economy that respects the seriousness of words and icons, and which disallows their use in trivial or silly contexts."

The idea of remixing can and is repurposed by commercial interests, but is an effective technique for teaching technical skills in a context students appreciate. We reproduce the elements of the Remix Manifesto below:

1. Culture Always builds on the past.
2. The past always tries to control the future.
3. Our future is becoming less free.
4. To build free societies you must limit the control of the past.

Many students see these principles as guides for how they engage with information and that includes their college experience. We believe these ideas can be integrated into design programs by rethinking structures and faculty in a way that bucks educational trends and yet looks forward. We would offer the caveat that the manifesto considers the controlling forces to be commercial, and that a strong sense of history is an imperative for creating new work that transcends fashion.

Jeff Gomez sees that within the generations of internet-savvy students, there is a separation between "Generation Upload," who is remixing work that was previously only browsed in the revolution of "Generation Download." While this does not quite seem accurate, as all members of the former rolled into the latter, and the Download exclusive period was very small, it does help to understand how little stock current students put in Sacred Works.

JR + Community
James Thurber + E.B. White
Watson + Crick
Daguerre + Niepce
Chermayeff + Geismar
Jessica Helfand + William Drenttel
Harry Potter + Hermione Granger + Ron Weasley
Saul Bass + Alfred Hitchcock
Joani Spadaro + Andrew Blauvelt
Georgia O'Keeffe + Alfred Steiglitz
Sherlock Holmes + Dr. Watson
Saarinen + Eames
Jon Stewart + Steven Colbert
Ann + Paul Rand
Stanley + Jack Kirby
David Lloyd + Alan Moore
The Art Guys
The Yes Men
The Starn Twins

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Eventually remixing will end up a pile of mud, like the final state of Jan Svankmajer's mashed heads in *Dimensions of Dialogue.* Our culture can eat and regurgitate, mix all its creole colors together, inbreed designers with other self-congratulatory designers, but eventually the paradigm will turn gray and useless, and then implode. Eventually we will need to come up with something brand spanking new, though it will probably draw from history and a cultural awareness; in the classroom, discussion and collaboration will likely play a role.

A successful design program needs to be regimented with foundations and upper-level classes scheduled at specific points in a carefully selected student's educational career. This is not particularly original, but it's surprising how many programs are modeled after "Choose Your Own Adventure." As if it just doesn't matter. Of utmost importance to students in their freshman year are Art History, Electronic Media & Culture, Drawing, Color Theory, Contemporary Issues in Art, Fabrications, and Mass Comm. With any success, these courses need to precede any rudimentary design course, without mentioning Type I need occur before Design I. These preparatory classes preface Design in the sense that reading James Thurber and E. B. White's *Is Sex Necessary?* prepares a young and confused couple for marriage. Take note, digital technology can be quarantined to one class. In addition, such electives as Poly Sci, Documentary Film, Cultural Anthropology, Psych, Brit Lit, Comp, and Crime + Media + Pop Culture should be highly encouraged, as learning about media is half of the design equation. Any good educator should expect to see at least one reference to J.J. Abrams and Alan Moore. Getting design inspiration from looking at design is like a hickey sucking itself. Design services all of culture.

Jerry Seinfeld + Larry David
Laurel + Hardy
Adam Savage + Jamie Hyneman
Pacific Northwest's Collaborative Design MFA Program
Syracuse University's Collaborative Design MFA Program

And yes, ras+e.

There are two of us in the classroom at the same time. Two students are getting attention at once. We have a classic sense of completionism, a formalist and a conceptualist. All lectures become a dialogue and then a discussion. We are collaborators. When he's code, she's human. We are graphic designers, fine artists, writers, thinkers, inventors, and musicians. Our skill set is frenetic; our commentary is rooted within this collision, this dialogue.

In addition to crafting ways to coax students out of their comfort zones wherein digital tools override conceptual thinking and planning, we need to help students gain perspective on the culture, trends, and tools they take for granted. While blanket statements regarding design programs and potential adjustments are impossible and the opposite of helpful, and with design education occurring to various strata and degrees in high school, community college, vo-tech, liberal arts, and art school programs, a few basic principles and ideas about their implementation are universally appropriate.

Foundation programs and general fine arts prerequisites need to include more than tacit references to digital tools and contemporary issues. We have long agreed that art history is a necessary perspective on contemporary art and design. Given the explosion of readily available historical and contemporary work, students need a different sort of guide than to simply get them through all of art history in two courses which ends in Pop. As if Art ceased to exist after Richard Hamilton and Roy Lichtensetin. This might mean a Foundation level art history discussion of Information Age art. Typically professors in various disciplines teach an abridged version of relevant work and contemporary issues, convincing themselves any scattershot sample of material that encompasses all arenas of artists is better than none. A few moments in art history had profound ripples that became building blocks for modern design theory regardless of medium. Dada forced a fundamental questioning of "What is Art" at a level that directly impacted public cultural discourse. Brancusi's Bird In Space did not even pass through US Customs without being taxed, sending a landmark statement ricocheting throughout the art world: Do we even know art when we see it anymore? We realize nothing occurs in a vacuum, but we argue the impact of the Internet on art and design trickles into all fields. Because EVERYbody is "connected," why do we need artistic "movements" that comprise of a group of geographically contained and ideologically similar-minded people? How young designers view, find,

Ted Kaczynski writes in his manifesto, "History shows that all social arrangements are transitory; they all change or break down eventually. But technological advances are permanent within the context of a given civilization." In other words, we cannot go back. In other words, we are all in this together. Collaboration across disciplines is an imperative to control technology across boundaries, especially if the collaborators are in a constant state of flux while the cultural challenges march resolutely ONWARD! In other words, the name of the game is Media and the objective is to collect them all.

Creating interdisciplinary spaces and situations through the use of collaborative faculty will become the most important aspect of physical design education. In the previously mentioned article about collaboration, Jonah Lehrer discusses how papers written by coauthors in physical proximity to each other are measurably stronger than when the collaborators are separated. Modern communication technologies do not provide the same physical playground experience. In short, collaborative, interdisciplinary faculty teaching courses in collaborative, interdisciplinary spaces will provide a better collaborative, interdisciplinary educational experience. And real space is an imperative. If nothing else, this is our argument for design programs tied to physical studios. Think warehouse.

Postman argues that reducing higher education to Job Training indicates that education is out of ideas. He warns that we are now building "a technocrat's ideal—a person with no commitment and no point of view but with plenty of marketable skills." Professors are afraid to grade hard, afraid to speak up, and they are hired and paid based on a popularity contest judged by students. We are churning out cogs and all the cogs are operating in fear. An interdisciplinary faculty connects with students across disciplines building broader relationships, but also is in a better place to push a program in a new direction.

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create, and relate to content has fundamentally shifted. They cannot see the context for themselves because Lisa Frank still carries more familiarity than Peter Max. Design curriculums need to help them see the past, the present, and from that the future if their work is to have any relevant conceptual intent.

The proliferation of photographic tools has made quality photography and a perspective on how we see a blurry discussion, one that needs to begin at the early phases of college coursework. Many relevant media and culture course areas tackle such issues, but Art and Design programs should help shoulder this load, ensuring that students are considering these cultural shifts from the perspective of contemporary, not merely modern-era, designers.

Cicero stated, "To remain ignorant of things that happened before you were born is to remain a child." Postman continues: "It is enough to say that history is our most potent intellectual means of achieving 'raised consciousness.' Every subject has a history." Postman goes on to advocate that all subjects be taught with an integrated dosage of history. "Because of the nature of the communications industry, our students have continuous access to the popular arts of their own times— its music, rhetoric, design, literature, architecture. Their knowledge of the form and content of these arts is by no means satisfactory. But their ignorance of the form and content of the art of the past is cavernous. This is one good reason for emphasizing the art of the past. Another is that there is no subject better suited to freeing us from the tyranny of the present than the historical study of art…To oversimplify the matter, a young man who believes Madonna to have reached the highest pinnacle of musical expression lacks the sensibility to distinguish between the ascent and descent of humanity." Think of it as a scatter plot. From perspective, we can see that everything is on some sort of continuum headed in some

We need faculty who are not stuck teaching in the Medieval course structure, though this is less about hiring faculty for their tech skills and more about hiring faculty who can communicate across disciplines. In college, I was good friends with a kid studying pre-med. I, of course, was a rock'n'roll art punk and, to Andy's frustration, I assumed that mitochondria were pretend. What ended up happening was Andy taught me science through a series of Star Wars analogies. Patton Oswalt called this "Physics for Poets," though in my case it worked. Even at the level of an informal discussion, college constantly provides opportunities to expand through collaboration.

"In education the conventional division of the curriculum into subjects is already as outdated as the medieval trivium and quadrivium after the Renaissance. Any subject taken in depth at once relates to other subjects," writes Marshall McLuhan. "Continued in their present patterns of fragmented unrelation, our school curricula will insure a citizenry unable to understand the cybernated world in which they live."

A bit from our collaborative interdisciplinary thesis: I'm a girl. I'm a boy. So you know, this doesn't happen simultaneously or immaculately. You can think of her as digital. You can think of him as physical. We are anti-antioxidants. We amplify the destructive effects of prolonged exposure. If she's Courier, he's cardboard. We are Ryan Shelley and Elizabeth Herrmann (ras+e) and we generate humanistic commentary on critically detached communication using limited means. We want your discarded mediums, your boxes, excess bits of a busted culture; when life gives you lemons, we make grenades. Design is making anything for anyone out of anything.

sort of direction. Right? Dear artists and designers, our calling is to be the trebuchet on the scatter chart, launching cannon balls of work forward in the most interesting, unique, personal, meaningful way possible. As teachers, our calling is to not only to encourage and instruct on building big ass sling shots that do more than poke at Hulk, but rather to show the why, show the historical impetus, and promote further means of launching. Forward without perspective could very easily be a circle. In other words, we want BOOM!, not boomerang.

Or George Orwell's dystopian inverse: "History is bunk."

In a real (but unusual) victory of Substance over Style, 3D film is staring at a bursting bubble. While cost concerns have surely been part of the story, it seems that audiences have grown frustrated with the shoddy craft of many 3D films, and even when spectacle was crafted well in James Cameron's *Avatar*, the film community revolted at the overt predictability of the plot. Contrast that with the success of 2011 indie wonder, *The Artist*, a finely acted, shot, and directed nostalgic celebration of the power of film. Another parallel bit of modern film celebration on the wonder of cinema is master craftsman Martin Scorsese's *Hugo*, in which the tech holds up to the standards of Cameron while eclipsing its overt narrative. Both *Hugo* and *The Artist* have accrued awards and online buzz in spades. In recent years, the Oscars have been heavily criticized for their unwillingness to reward risk, but generally they do at least award (and subsequently promote) respectable films. Some have suggested that the declining ratings of the Oscar telecast is linked to the fact that rewarded films seldom match the box office results and that viewers are staying away because they have no connection to the competing films. I remember feeling let down after watching *Spider-Man 3* at an old school theatre while in college and feeling horrified by the list of

Comparing job postings of recent graphic design faculty positions with similar announcements in illustration and photography reveals assumptions about what schools feel are important attributes. Photography is as impacted by technology as animation and graphic design. But the postings reveal that designers are expected to be versed in layout, image editing, illustration, programming, motion, and other time-based technologies, while photographers are likely only expected to know Photoshop, though often times these roles are filled by lower-tiered lab monitors or teaching assistants. Ultimately, photography professors are expected to know photography. Even in a Digital Photography class, the professor's knowledge of both history and contemporary issues is more valuable than their experience with the full range of capabilities surrounding Photoshop's link to Bridge. Students can teach Photoshop to themselves. Professors are there to direct them somewhere interesting in their CS6 Ferrari. Conversely, expecting students to enter the photography world with a nuanced under-standing of photographic history, its links to film and video, and the ability to accurately crit contemporary photographic trends is absurd. But at the collegiate level, we still expect designers to be programmers and technologists.

Worse, students expect faculty to treat Time-Based Design as a crash course in After Effects. Evaluations of faculty are reduced to *Mona's* "hope she cleans / hope she cooks" level of involvement. My colleague told me that he was in the process of creating a motion graphic of icons warping into each other because he didn't have anything in his portfolio that demonstrated his knowledge of key frames. He's a drummer, video artist, song writer, performance artist, and layout designer. But little yellow triangles are the best bet at convincing someone of competency in the medium, supposedly indicating an understanding of relevant elements like pacing.

highest grossing films for that year. (The top five highest grossing films of 2007 were all franchise sequels, except for *Transformers*, which was based on a line of toys.) As a critic pointed out when the subsequent Oscar list was released sans any popular films, if rewards followed the votes of viewer dollars, the "best" films of the year would be filled with remakes, sequels, prequels, and thinly veiled brand promotionals. The point is, the free-for-all world of the web that has been the exposure of contemporary students to Art may have been democratic, but a popularity contest is hardly an infallible barometer of quality. It's a tall task, but Foundation design programs MUST address the students' cultural context regarding technology and information.

We must also balance the reality of designing with and for contemporary technologies with the precision and consequences of physical production. Physical work will not go away, but it will be prized and competition will be fierce. Artists and designers who work physically still integrate digital tools, so both elements are necessary. For time reasons, and likely because many professors teach Foundation fundamentals from a similarly old-school perspective to how they were taught, this blend typically does not occur. There are digital classes and there are physical classes and any sense of integration happens in those big numbered courses. The problem is students KNOW better, and they enter courses skeptically if what they're being told doesn't match up with the world they know.

A calling card is meant to be printed, a physical indication of the caller's physical visit. The same goes for a book, label, and poster. Surprisingly, many traditional graphic design students complete their entire college education without ever having printed a single thing, including the aforementioned examples. When asked why their work solely exists in the digital

Our collaborative portfolio is aggressive, but it does enable us to wage a war on expectation, meaning we value surprise. RE: is design without numbing agents; it's design beyond Impact and Lara Croft posed all contrapposto on a supermarket tabloid. Our premise is based on working with cheap democratic materials paired in exploitive relationships. Medium follows idea; text and image melt together. His design is fine art. Her writing is graphic design. Think of them as two easy going (slow) tectonic plates inevitably inclined to friction. The result is combustion: re.ink.art.nation. Think Mount St. Helens with toner. Video. Screenprinting. Letterpress. Digital and alternative photography. Stencils. Book arts. Installation art. Music. Projection. Alternative printmaking. Writing. Performance art. Graphic design.

This is our mud puddle.

realm, their unanimous response is, "my professors never made us create something physical," or "I have an all digital portfolio." Consider the educational system of primary public schools in America. Students must take standardized tests for math, language, and writing to prove their aptitude prior to graduating to the next grade. Teachers are expected to prepare students for the tests and it is quite real that over 70% of the curriculum is centered around learning how to take a standardized test. This produces a generation of possibly great test-takers, good students, and dumb people. Just as important is an understanding of print, physical craft and construction, installation, and typography in multiple contexts. Allowing students to only produce typical portfolio work does little to prepare students for diversity of the design world and does nothing to help them stand out.

Artists have long wrestled with the notion of prints. Reproductions. Multiples. The potential for income through duplicating work is real (ask Dali), but designers have largely subscribed to the core values surrounding digital / physical creation occurring in a constant shift. In design education, questions about physical versus digital production matters within the narrow windows of Color, Illustration, 2D, and other courses with distinctly separate digital and physical skill sets. College students largely ignore this schism because only digital production seems valid and physical production is seen as an antiquated "coming of age" graduation to the Big Boy computer. "Now Sweetie, how can you have pudding if you don't eat your meat?"

Don't miss it; the surge in popularity of collegiate printmaking programs is linked to the digitization of graphic design. Printmaking programs are full of frustrated graphic designers who wish they could make actual things. Books are no longer

In *Innovations in Light* by TIna Rosenberg of *The New York Times*, the author provides an excellent example of why students and faculty should be chosen for what they make, not for their technical mastery. "The unsolved problem for lighting Africa isn't designing a great lamp…The technology is the easy part of solving problems…A Liter of Light: You take a one-liter plastic soda or water bottle, fill it with a mixture of water and bleach, cap it and seal it. Then cut a bottle-shaped hole in your tin roof and stick the bottle in it, cap up, with part of it above and part below the roof. Seal the hole so the roof doesn't leak. The water inside the bottle refracts and disperses sunlight. You now have the equivalent of a 50- or 60-watt bulb that will never cost you a dime, burn your toddler or set your house on fire. The bottle bulb was invented in 2002 by Alfredo Moser, a mechanic in Sao Paulo, Brazil. After a few demonstration projects in each community, the only thing that needs to be delivered is the how-to information. This is a technology program where word of mouth and social media really can do most of the work."

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a mass market medium, so they are returning to the realm of artists. Printmaking, book arts, paper making, and alternative photography are now physical tools of designers and artists. These mediums often integrate modern tech in addition to historical means of production, but the point is that no matter how design programs might push toward technical evolution, designers still need skills tied to physical production. If not for practical reasons regarding trends or potential projects, then because the design industry has a responsibility to the culture to re-cultivate a sense of Presentness.

After assigning a 2D Foundation project designed purely for physical production, a student emailed us stating he was going to work digitally instead because "there is no point in wasting paper." I mumbled something about "fix the plasticizing of the Pacific and then we'll talk about the eight sheets of paper you tossed in the recycling bin," but horror kept my sarcasm in check. The truth is, this student is not weird or insane. In his world, THE PIECE WAS NOT THE ENDS. We are inheriting a generation of design students who see what something looks LIKE as what it IS. If something looks real it IS real.

"It just works." Following Wolfgang Weingart, then Ivan Chermayeff, then Dorian Angello; the maxim of the digital / tactile collision forces the computer into a physical realm. Text and image that have been produced digitally, manipulated physically, then brought back into the computer, or vice, gain an element of realness, like a chewed up and spit out war veteran, unmirrorable through any Photoshop filter. When students understand that the computer and software are just more tools, like a serrated knife to a chef, and that like all tools, their use is in service of function and in conjunction with multiple other tools, a more sophisticated process and approach to working is formed.

Competent, informed, and savvy faculty are an an imperative, and this does include technical skills. Instructors who stopped caring after Quark, despite how acute their formal skills are or how much of a rockstar status they have, need to give it up. There are plenty of hungry, over-qualified MFA graduates with an up-to-date education, that are turned down due to tenure policy or relative in-house stardom. As a profession, we are entering an era where heroes like Milton Glaser, Steve Heller, Massimo Vignelli, Mirko Ilic, Zuzana Licko, Jenny Holzer, and even April Grieman are actively passing the torch. Our students are the next generation of designers that will be the next to-hell-with-everything experimenters, Ellen Lupton writers, and Banksy political activists. This time, instead of rolling up a sheet of printed text and photographing it for a cool poster, the disciples of JR will utilize both old and new technologies, using wheat paste and black and white canvas eyes to seal leaking roofs in poverty-level countries.

If part of what we are teaching is how to control technology, then we need passion from technically proficient practitioners. Otherwise, the effect will be of some elderly zealots ranting from the desert. Postman argues for a citizen's arrest approach: "I can, however, offer a Talmudic-like principle that seems to me an effective guide for those who wish to defend themselves against the worst effects of the American Technopoly. It is this: You must try to be a loving resistance fighter." We need something more from our faculty beyond book knowledge and we need a hiring and rehiring structure that encourages riskier behavior.

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The digital / physical relationship regarding the sharing, experiencing, and creation of work (read, "design school") might take its cues from the current state of the music industry. While album sales are in free fall, live concerts are selling increasingly well. Radiohead may have been the first to actively give away their music in its online album releases, but more and more, bands are using albums in service of ticket sales. Consider the proliferation of summer music festivals and how many bands sell out shows on the club circuits. As far as the music industry goes, digital tools are functioning directly in service of live physical work.

Some programs have incorporated tools and work surrounding Interactive Design into their Foundation program, but considering first-year students likely arrive at school familiar with this area of design, it is imperative that we begin treating Interactive as a fundamental component of contemporary art making. Besides a taste of code, we must help students understand the dimensions of Interactivity, understand its theory and history, and understand that true interaction does not inherently involve digital systems mediating, and often mitigating, communication. The responsibility to ensure that people continue to have true engagement with each other should be a very real operating component of design education.

The main advantage of a studio lab is that it becomes the Quad for designers. Students studying animation mingle with those pursuing information design, and that's how designers learn to steal software tricks and puppetry ideas from one another. Chances are, someone else in the room knows how to do something another student is having trouble doing. Neil Postman argued that technology encourages individuality; we see this in the resistance from students toward collaborative projects. Despite the potential for unique combinations of talent and perspective afforded by college courses,

Writing about Dr. David Helfand, formerly of Columbia University and now with the Canadian school Quest, Tamar Lewin documents how Helfand has built a school that bucks the negative side effects of the increasingly consumerist approach to education. While the tenure system can allow faculty to explore and experiment, it can also have a stultifying effect. Helfand has experimented with eliminating tenure and using multi-year contracts, two-year long projects that students choose and pursue themselves, courses that run for a single month but with students only taking one course at a time, grades supplemented with an in depth assessment from the faculty, small class sizes, and a lack of departments. The objective is to create an atmosphere where faculty explore and students engage actively with what they are being taught. According to Dr. Helfand, the experiments seem to be working and the students are active and engaged.

Advocating passion on behalf of the faculty, Paul Sahre addresses the ideal relationship between designer and professor roles: "Teaching is absolutely essential for my design practice and vice versa. They feed off each other. Advice? Just care deeply and commit fully to what you are doing and everything else will take care of itself."

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the consumerist approach to education trickles into expectations that students have bought the right to not be subject to anyone's interests but their own. As a collaborative teaching team, we have turned our classes into more open-ended spaces to experiment, collaborate, and play. Being professional designers, we often hear complaints from design studios that there a lot of talented applicants and hard workers graduating from top-notch design schools, however getting these new designers to work in teams to execute projects is a struggle. In the classroom, collaboration should be encouraged, if not implemented, for specific projects in reflection of design reality. Designers don't always like "mingling" their ideas or work habits. As every athletic coach knows, the whole is simultaneously greater than the sum of its parts, while the whole is also limited by its weakest link. Not all subjects lend themselves to teamwork; Type I is not a collaborative course, but Interactive Foundation is. We emphasize to students that they can minimally help each other to document work.

When *Family Guy* returned to FOX, a reviewer described the show for the masses who were not part of the preexisting initiated as the "search for the perfect gag." Design collaboration is the search for the perfect collision. If we look at innovations in design and technology, it is hard to look for a higher concentration of brain production than Bell Labs. John Gertner in *True Innovation* discusses the environment at Bell Labs, the innovation institute that became known as one of the most creative spaces on the planet. In addition to the autonomy given to the makers and thinkers housed together to pursue ideas without direct supervision, specific attention was given to the facility itself. Employees housed along the long hallways had to work with their doors open to facilitate interaction. Gertner writes in *The New York Times*: "Some of the hallways in the building were designed to be so long that to look down their length was to see the end disappear at a vanishing point.

The ideal is for faculty to be chosen and to function like a carefully selected body of grad students. Chosen because of their diverse backgrounds which take into account academic history, cultural influences, attitude, perspective, age, gender, and of course their work, grad schools aim to gather a group of highly motivated people that will work well together and learn from each other. We believe faculty are better suited for some programs and in accordance with certain people. The methodology should be extended farther than, "let's get a rockstar, or what can we afford, or anything trendy." This shouldn't come across as groundbreaking news to anyone, but essentially it boils down to the faculty's commitment to a prioritization of a unified vision. Comparing even our best art and design programs to Black Mountain, this kind of collaborative consensus does not appear to be happening. But considering efforts like Quest, Bell Labs, Building 20, and the selective Posse program, it is possible to make design education work with a collaborative playground approach.

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Traveling the hall's length without encountering a number of acquaintances, problems, diversions and ideas was almost impossible. A physicist on his way to lunch in the cafeteria was like a magnet rolling past iron filings."

A similar pressure cooker happened at MIT. Although its evolution was an accident, Building 20 grew from a massive shack intended to house overflow from multiple departments when construction resources were scarce, and became a premiere idea incubator rivaling the production of Bell Labs. It was the chance encounters of the diverse specialists thrown together in Building 20 that made it function, a function aided by its low, sprawling, horizontal floor plan, in contrast to the small, specialized floors of vertical structures. The denizens of Building 20 had no homogenous floors; everyone encountered everyone else, a fact aided by the constant modifications to the environment by researchers who had no qualms with altering their "temporary" home. From the frenetic juxtaposing of this castoff structure came unexpected collisions with diverse results: Bose Corporation, hacker culture, The Strobe Lab of "Doc" Edgerton, and Noam Chomsky. The Father of Modern Linguistics, Chomsky may have been well on his way to mastery of a field, but being surrounded by thinkers on every side of his thinly walled space, a leap occurred. Linguistics—>Everything. Chomsky is now one of the biggest names in Cultural Criticism, Political Writings, and Philosophy. For the years 1980–1992, he was the most cited living scholar in any field. True innovation is intrinsically epic and requires jumps, links between mediums and ideas, stemming from interactions between thinkers (and their disciplines). We contend that the physical structure, location of materials, and layouts of college design studios and art buildings can play a major role in shaping a program and encouraging collaboration.

Additionally, if the traditional approaches that are contingent on heavy textbooks and professors professing from heavy textbooks no longer work, then what does? We argue in favor of models based on apprenticeship and play.

The reason why children often end up in a profession similar to that of their parents can be attributed to a maturing and playing in that work setting after hours when Dad had to stay late. Or when Mom tells Baby what she does and maybe even lets Baby help her. Work is fun if it's a privilege to be assigned a grown-up task, no matter how unappealing it actually is. Children learn how to cook because mixing and baking and testing are fun. Parents are role models and the first people to mold their child. I put ketchup on my eggs and pay close attention to detail because Dad did. Apprenticeship follows a similar dynamic. Going back to the Middle Ages, a master craftsman would take on a young protege. Copying technical skills on the level of specific characteristic technique is like learning with training wheels. A student will claim that a bike will go faster without, and our response is, "Go for it, mate." Road burn is good and so too is curiosity. If school is an environment padded for falling, then why not hire the most adamant of masters and the most malleable of students? Weingart apprenticed with Emil Ruder and Armin Hofmann at the Basel School. Upon mastering the International Style, Weingart thought, "Well, fuck it. Why can't I _____?" This is the type of protegestudent we encourage.

Wolfgang Weingart succinctly describes the ideal design education structure, emphasizing real space, conceptual process, faculty interaction, and technology: "We were the first Swiss design school that, in November 1984, had Macintoshes in my typeshop, it was a gift from Steve Jobs and Clement Mok. This reality could be a proof that I am open for almost everything. In fact, in the Basel typeshop we had hot metal, lithographic film, and the electronics all together. My first principle to every

student was: 'Use every technique to solve the problem.' Josef Albers said, in 1933, at Black Mountain College, 'Open the students' eyes.' That's an important part of my mission."

In *Print is Dead*, Jeff Gomez argues that writing and reading are evolving rapidly. While he does argue convincingly for the potential of writing in new media, he fails to give enough credence to the argument that we are losing essential skill sets in the evolution. He sites Ok Go's rise to viral music video deities, the *Choose Your Own Adventure* books, and Norman Mailer's multiple iterations of his 1961 book *Advertisements for Myself* as examples of interactive innovation. We could include others, such as Radiohead's post-label album releases and Bjork's album *Biophilia*, which combined music with iPad apps. Still, writing is in the early stages of utilizing the interactive element of new media, and Jack White is continuously exploring ways to create unique experiences through old media. In other words, contemporary writing is just getting started. It will likely blend old and new media potentials regarding output and process. It is this that holds the most interest for design education.

The first time I realized that we might be losing the ability to read, write, and wrestle with in-depth, nuanced subject matter, involved a three sentence email from a student in which not a single word was spelled correctly. Culture is losing the interest and ability to parse longer form writing is a given. What we seem to be gaining is speed, not content. We are able to communicate partially formed thoughts faster than ever before. While I maintain a deliberately casual relationship with those over whom I hold some measure of authority, I can recall a particular email that stunned me. The offending email was a text message, if we may be charitable with our definitions of language and mediums. Abbreviations, a lack of capital

We offer this paper and our concluding comments to others who see design education in a crisis of technological dependence. To all other frustrated members of our community, we offer this "go team" toast in the vein of Patton Oswalt and Tristan Tzara: Here's to the fuckups who break bad things.

TE@CH   106   RAS+E

letters, no salutation or closing. It was a message, but not good language. Questioning literacy, the temptation is to treat the impact of contemporary communication as a force shaping new languages. But language is a tool; for Mark Twain, "nigger" is a conscious decision. "Ain't" is a colloquialism. And "fuck" can be a fist. As designers, artists, thinkers, and makers, the quality of our work is tied to the quality of our language, the nuances of our decisions of word choice. We don't text the way we talk and we don't talk the way we sing and we don't sing the way we write, if we may paraphrase Pedro the Lion. Whether visual or written, design education should teach quality language use and creation, including a perspective on texting-influenced writing. In short, how we read, how we write, and how we think are all impacted by an Internet-driven shift toward habits and attention spans prioritizing "efficiency" and "immediacy," according to Maryanne Wolf.

Not only is writing important for designers articulating ideas to clients and collaborators not present in the room, but understanding language and symbols is an imperative for all communicators. Writing may be evolving and there is potential in the new forms, but Jack White is living proof that there is potential for innovation in old mediums also, that what we really need is craft, vision, passion, and technical innovations paired with conceptual inventions.

Writing as process is invaluable to design, a fact seen throughout the sketchbooks of all master artists. Thoughts built on other thoughts, ideas grafted onto previous ideas, and sparks of original progress must be translated precisely into written documentation, to be strung together, merged, layered, and revisited. If we value the teaching of process, we MUST value the teaching of writing, at least as process, if not more.

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4.3 Narrative: A bridge between technology and design.

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Abstract

Today, design is a word which resides in the vocabulary of school- aged children. With the accessibility of computer programs design has become something ordinary people engage in everyday. An even more sobering thought: a designer is one more person with a degree entering a dwindling workforce with a portfolio showing what can be done with a white field, pristine typography, and shapes colliding to form logos on letterheads, brochures and websites. Design has evolved into something that is often formulaic and predictable—the stuff of templates. How will our future designers define their role in this seemingly bleak marketplace and techno-savvy world if visuals via software continues to be considered the pinnacle of design?

The days of arguing technology verses design are over and a new pedagogical approach is necessary, one that focuses on what technology and design are being used to deliver—content, more specifically Narrative. I propose a written narrative and research centric recently test piloted class as a contextual solution to the ubiquitous design Catch 22. To integrate technology and design a contemporary topical theme uniting the tools of technology and design must be employed as a basis for research. Based on prompts about the researched theme students will write narratives using different literary techniques and perspectives that target specific audiences. The written narratives are then translated into print, screen, object, motion and space narratives, not posters, websites, movies and exhibitions. As each visual narrative is assigned, the necessary technology is contextually introduced to enable the student to deliver medium specific narratives most effective for the researched audience.

By making the written narrative the focal point of a class or design curriculum we avoid the Catch 22 of design verses technology and let research and content—the true essence of any piece of visual communication—dictate how the tools of technology and design are contextually utilized.

5.1 Issues in Marketing a Design/Media Program

Robert Johnson
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Abstract

Background
Due to a name change the department needed a new identity. The name development and identity design process led to a larger question of how to provide a clearer picture of the degree programs to prospective students – what is involved in the course of study and a clearer path through the acceptance process.

Strategy
A Student Advisory Board was formed with representatives from each degree program in the school. The initial purpose was to aid the school in general improvements.

A focus group was used to probe this group on a range of questions regarding their college selection process. It included questions regarding what schools they considered to what types of information they sought out to make their college selection. Our panel wanted to know what sources the information came from, what level of trust they had in different sources and, finally, if anything was difficult to locate or non-existent.

Outcomes
From the discussion it was clear that typical printed college marketing materials and web sites don't present a clear picture of the unique issues in design degrees.

Students felt that most web sites were difficult to maneuver through for all the requirements to apply.

But, the strongest issue was the inability to gain a clear picture of:

      a] Difference of class structure from standard classes
      b] Difficulty of the course loads
      c] Potential routes of employment
      d] Skills needed prior to entering the program

We are now in the process of building on these learnings to develop a marketing used and what information students are seeking in their college selection.

Issues in Marketing
a Design/Media Program

Marketing to prospective design students is complex today due to increased competition, a variety of new media and students' wider range of desired information. A school name change initiated a review of recruiting efforts and marketing materials. This opened the door to a larger discussion of all information being communicated. >>

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Background

University of the Incarnate Word is a faith-based university located in the heart of San Antonio, Texas. Even though founded in 1881 the university's graphic design/3-D animation department is just over fifteen years old. The student population is approximately 60% Hispanic and most students come from the San Antonio area or the 'valley' region of southern and southwestern Texas.

In late 2010 UIW's School of Interactive Media & Design started a discussion to find a more appropriate name better communicating what degree programs were offered. Since the school is not within the fine arts department, as many design programs are, the name needed to convey the range of degrees and allow for changes and evolution of technology.

Initial Strategy

The name review led to dropping the word 'Interactive' and leaving it as School of Media & Design. This discussion led to an additional review of recruiting efforts and marketing materials. Since a Student Advisory Board had recently been formed they were selected as a focus group to gather learnings about both printed materials and web site communications for the school.

Questionnaire Development

Two different focus groups were held asking a range of questions regarding their college selection process. It included questions such as what schools they considered to what types of information they sought out to make their final college selection. It was important to know what sources their information came from, what level of trust they had in those sources and, finally, if anything was difficult to locate or non-existent.

Since many college general marketing pieces are sent out to some of the same audience, UIW's Admissions Office was interested in participating in the groups. Students within these majors are more closely looking at both the messaging and overall design it was decided to probe issues dealing with both.

The final outcome was to understand better what types of information students sought out most, how it should be presented in terms of structure and visually what resonated with

today's high school seniors.

DISCOVERY

Brand Essence Development

Some prior conceptual design work had been put together to present to the faculty of the entire school on suggested print marketing materials (*Figure A*). Considerations in the development of this piece included overall costs, amount of information necessary to clearly communicate a degree program, visual appeal, and ease of customization based on the individual prospect's choice of degree.

Two 'branding stories' were developed (*Figure B*) to test what type of route the piece could take. The school wanted not only to communicate the degree programs offered but also the unique characteristics of learning at UIW.

Focus Group Questionnaire

In talking with students it was determined that a range of information was needed. This would help clarify issues within the school's communications but, also, how they linked to the overall university's messaging.

A formal focus-group questionnaire was developed and a time set up to talk with students. A diverse range of students participated including gender, race, degree choice and status within degree completion. Department coordinators were invited to attend, as well as the Admissions Office as spectators.

Initially students were probed regarding their overall college selection process. It was necessary to know their complete list of schools compared, materials used for the comparison, and the process to arrive at their decision. Next, recruiting materials and key information-gathering points were discussed to understand what materials were most helpful and which were not. Both the verbal and visual were probed to see what route was the strongest in appealing to students. It was also important to understand what types of information was missing or difficult to locate and how easy the process was in gathering information. It should be noted that all of the background provided was the student's own perceptions and not always reality. While one

Figure A: Concept mock-up of potential recruiting brochure.

Figure B: Brand essence boards to help establish look and feel.

Telling the Story Through Personal Connections

Captured Moments

Learning In Progress

Telling the Story Through the Learning Process

Steps to the End Result

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piece of information might be readily accessible it may be that a student finds it difficult to access or couldn't find it in their search.

As an additional check another focus group was conducted approximately a month later having the students actually do an on-line search for items they were looking for. In this 'hands-on' probe students were asked to look at several college web sites they had been interested in. While looking they were to print out and make notations of items they thought were helpful, as well as a hindrance, to their information search. After this exercise a discussion of their findings helped identify key problems with most college web sites.

Finally, an additional focus group was held but this time using graduating high school seniors that had just gone through the college-selection process. Since this was more closely the target audience it was necessary to determine if there were any differences in student's perceptions or their process.

The Process

Students stated that they used a combination of ways to compare information. Personal connections such as with college recruiting events, current high school teachers, admissions counselors or friends provided a word-of-mouth viewpoint. Printed marketing materials played one role but most importantly a college's web site was the key location for gathering information.

**DISCOVERY – INFORMATION
What Do Students Really Compare?**

The top three pieces of information, indicated by the focus group, a student is researching for are:

1] Requirements of the major/curriculum
2] Class sizes/Faculty-to-student ratio
3] Financial aid/scholarships

Other items on their list included professor bios and current work/research, available internships, graduation requirements and admissions procedures and deadlines. While most of this information is fairly easy to find and navigate students found an additional list of desired information rather hard to find or non-existent.

This list included information on:

1] Job placement assistance
2] Student gallery of current work
3] Events related to their major held by the department
4] Graduation rates of current classes
5] Transfer requirements
6] Portfolio requirements

Some additional items students felt would be beneficial but hard to find were:
7] Notable alumni/success stories
8] Equipment/supplies requirements or costs
9] Awareness of classes having to be taken in an order or 'in step'
10] Other possible degrees paths if not accepted into the major
11] Day-to-day workload requirements

**DISCOVERY – ISSUES
What Made the Search Difficult?**

From both sessions it was clear that students felt that the process was cumbersome and, at times, extremely overwhelming. Information was seen as available but was not provided in an approachable format. Online was the preferred source with viewbooks and other printed materials coming across as too slick and a sales
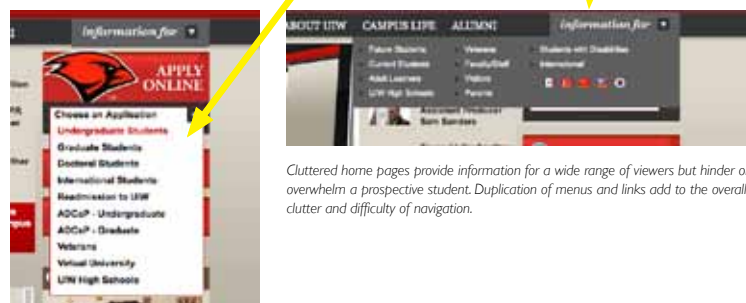
Cluttered home pages provide information for a wide range of viewers but hinder or overwhelm a prospective student. Duplication of menus and links add to the overall clutter and difficulty of navigation.

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pitch. Lack of some information was also clearly an issue for most interviewed.

Web sites were mentioned as the most difficult place to maneuver. While looking at many college web sites students commented on the fact that home pages contained roughly 75%-85% of information that was not applicable to them and got in the way of searching. It was noted that links were confusing and sometimes were repeated on the same page. Students also mentioned that information had to be drilled down to by clicking on a link that led to another link and another. Once they landed on a certain location then it was difficult to get back to where they had started.

LEARNINGS – THEMES

From this session it was determined that three basic themes surfaced.

1] Technology – Addressing marketing challenges

2] Honesty – Providing a wider range and more accurate portrayal of information

3] Differentiation – Strengthening our unique message, our unique selling point (USP)

Theme One - Technology

This theme dealt with the variety of mediums used to search a college. With all new mediums available it is complicated for a university, and then the school, to keep messaging consistent, up to date and not an overload through repetition.

The number-one choice for college searches was easily the internet which has become a daily tool in managing and accessing information in comparing universities. Most students used a number of sites from the net including a school's own site but also college comparison sites. Articles from magazines such as *U.S. News Best Colleges* were additional support information sites.

It seemed evident that social media should play a more major role in communication but students stated that this was not the case. Social media, for them, is more of a personal form of communication. They looked to those sites for information such as one student telling their personal stories of daily life within the degree program. They saw them as a

connection point with alumni regarding their experiences and job possibilities. So providing more factual information or requirements was not desired in this location.

Students were emphatic that they felt overloaded with information which at times made their search more difficult. This, along with the repetition of some of the same information was evident in their main search tool – the school's web site. For this reason, it was determined that a site should be simpler and have easier access for potential students.

Theme Two - Honesty

Viewbooks, long the typical recruiting piece, were seen as glossy, sales pitches with an overly positive message of the school. Students felt that they were too similar in presentation and scope and didn't help define why one college should be selected over another. They stated that the amount of valuable information was limited and would not use a viewbook as a main source for comparison. Many stated that the books didn't speak to them since many students today are non-traditional – commuters. Education was depicted as an idyllic setting where students rarely had to study, activities were most important and the student body was a perfect racially-mixed group. "In sum, viewbooks paint a hopeful, idealized and somewhat unrealistic portrait of undergraduate life.[1]"

Students clearly felt misled when it came to understanding the degree and course requirements to graduate. Not only the work load but also the type of class work within these unique degrees was not clear. Most high school students aren't prepared for the additional time involved in both class instruction and outside homework. The students stated that while knowing this would not have deterred them from making a school choice they would like to be prepared in advance.

Costs were not clearly communicated in terms of extra expenses outside basic tuition and housing. Students expected to work and supplement college costs but stated they weren't prepared for the additional costs of a typical project in a design degree. Supplies along with presentation expenses, higher

textbook prices and daily living expenses were difficult to estimate.

Skills necessary to succeed in the degree program was another issue students wish they had known more about. Many school districts don't have programs that focus on basic skills, such as drawing, to prepare a student for design degrees. It was evident that they would focus their high school work towards helping entrance into their chosen degree plan if they knew in advance that certain skills were necessary

Transfer students mentioned often that it was not clear what would transfer prior to application. Even during the process students felt that they didn't have a clear picture of course requirements/difficulty, transfer credits and the possibility of additional semesters to complete the degree and graduate.

Finally, clarity of communication was a key point. A large number of terms unique to the higher education setting are not as familiar to incoming students. Hours, matriculation fees, core classes and a host of other terminology unique to higher education left students confused and most were shy to ask for an explanation. Therefore, most copy should be written in a format that is appropriate to the level of the audience.

Theme Three - Differentiation

Each university is known for some point of differentiation from its competitors. With UIW being a private, faith-based university the focus of communication should be on the unique point of difference – personal attention. This is seen in numerous areas such as class size, student-to-faculty ratio, personal connection with the faculty and staff and overall treatment of students on campus. The verbal and visual should then hold to this key differentiation and assure that all pieces support this message.

LEARNINGS – RECOMMENDATIONS
Addressing the Issues

From all information gathered it was evident that

[1] *Hartley, M., & Morphew, C. (2008, November). What's Being Sold and To What End? A Content Analysis of College Viewbooks.* Journal of Higher Education, *79(6), 671-691* *http://repository.upenn.edu/gse_pubs/195*

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certain key issues needed to be addressed in any future web site development. Observations included:

1] Information needs to be easily accessible.

2] Students prefer a step-by-step process of research and application to the university and the department. They should be able to stop a process mid stream and easily return to that exact location.

3] Information should be presented in a simple, clean, uncluttered format/layout.

4] Supply only links useful to the particular audience speaking to.

5] Provide easy navigation between admissions and department pages.

6] Use terminology that the audience understands and to which they can relate.

7] Eliminate redundancy of links and information.

8] Provide information that honestly and clearly outlines course work, class expectations, costs and difficulty.

9] Hone and drive key university differentiators.

10] If doing some form of printed piece make sure it is unique and visually engaging. It should also not provide redundant information but be more of a support piece.

Based on these recommendations a sample web site was developed to give an idea of how these concepts might be applied. The school's web site was used as a point of reference for how difficult the navigation is for a prospective student.

The School of Media & Design is discussing how some of these ideas might be implemented on a test basis to determine application to the entire University. What started as a project to learn more about a printed recruiting piece has helped focus the school to what is more useful for prospective students and how that information can be better utilized for improved recruiting results.

Top: A SIMPLIFIED HOME PAGE. *Initial links quickly direct a particular audience to the section of the site that applies to them, but also allows for access to other areas of the site.*

Bottom: A SIMPLIFIED SCHOOL PAGE. *Home link connects to this page keeping with a more step-by-step approach.*

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LINKS IN THE FORM OF QUESTIONS – *Links can more quickly direct the student to the desired information.*

DEGREE PLANS/TERMINOLOGY – *Page gives a simple overview of what classes a student might take each semester. The left side gives some explanation of terms that might be confusing to a first-year student.*

INFORMATIONAL VIDEOS – *Videos provide a personal touch with current students explaining a project they are working on. Videos below provide examples of all phases of a particular project.*

CAREER POSSIBILITIES – *This information gives a student understanding of the potential career pathways they can take with a degree in this field. This could include videos of alumni talking about their careers and showing their current work. With design fields this is useful for both the student and the parent over concerns of lack of understanding the profession.*

6

5.2 Marketing Graduating Students in Today's Tight Market

Robert Johnson
University of the
Incarnate Word

Abstract

Background

With pressure on graduating numbers and graduates hired, universities need to consider creative means to market their students. The combination of increased student debt and the need to job search a broader area adds pressure to prove validity of this career option.

Strategy

By developing a 'portfolio event' the design department showcases graduating students' work directly to key audiences. This one-night gallery-style event is in a unique location off campus creating buzz and excitement. The students plan all aspects from theme, a fully-developed marketing campaign, contact list management, invitations, DJ, décor, catering to physical set up and take down.

Each year the theme focuses on that class' strengths. The visual look and verbiage is developed into a three-month-long marketing campaign including printed posters, invitations, email blasts and reminder postcards. News of the event is coordinated with local design and advertising organization at the awards dinner events. The show has been funded through soliciting local companies for either a donation of money or goods.

Each student is given a 6' x 6' tradeshow space to exhibit work. Holders for resumes, promotional packages and business cards allow for employers to start making connections for interviews ahead of graduation.

This year a unique marketing package includes a video and examples of each student's work on the theme – *What Do You See?* – based on the Rorschach test. This DVD and brochure will go out in a special metal box to all design firms throughout the state.

Effectiveness

We have increased interest in interviewing and hiring our students and increased awareness for the program across the state. Students gain more confidence in their interviewing techniques before actual interviews.

Marketing Graduating Students in Today's Tight Market

With pressure on graduating numbers and graduates hired, universities need to consider creative means to market their students. The combination of increased student debt and the need to job search a broader area adds pressure to prove validity of this career option. >>

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Background

University of the Incarnate Word is a faith-based university located in the heart of San Antonio, Texas. Even though founded in 1881 the university's graphic design/3-D animation department is just over fifteen years old. The student population is approximately 60% Hispanic and most students come from the San Antonio area or the 'valley' region of southern and southwestern Texas.

While San Antonio is the seventh largest city in the U.S. the design community is still small compared to other cities in Texas such as Austin, Dallas or Houston. Distance from the school to other metropolitan markets makes it difficult to easily interview and job search. This also means that UIW is not as visible in these regions especially being such a young program. Being a smaller design center means fewer openings for new graduates and jobs that may not lead to enhanced opportunities later in their career. The only option is to enlarge their job search to other areas of Texas and, possibly, throughout the U.S.

Department Growth

The graphic design department started as an offshoot to the 3-D animation program. One professor was added initially with two more teaching lines added six to eight years ago as numbers in the program grew. The department now has approximately 100+ students with focus on both web and print design.

To build the reputation of the department the faculty has encouraged students to enter regional and national competitions. This has begun to improve recognition of the program and improve support from the local design/advertising community. Regional recruitment has been increased and the department web site and recruiting materials have begun an overhaul.

Job Search Support Development

There were a number of issues that warranted new ways to improve the chances of students obtaining not only an interview but a job. The current economic situation, increased competition from local two-year and community colleges, larger student debt and small number of local job opportunities were incentives to find some means to better publicize students both locally and state wide.

Faculty reviewed the current curriculum and began to brainstorm possible changes that would not only achieve more recognition but also prepare students earlier in the final year for interviewing. It was decided to try and split the senior portfolio class. This would move the portfolio development and personal marketing materials into the Fall semester as a typical three-hour class. In the Spring students would then take a three-hour seminar class that's entire purpose would be to develop a 'senior show' promotion to the regional professional community.

Class Strategy

This one-night show would be in a unique location off campus and be designed as an 'event' rather than a typical gallery senior showing of work. While not only showing off the work the intent was to have additional entertainment to make the evening fun, creating a buzz for attendance the following years.

A three-month long marketing campaign would begin with teasers leading into posters, reminder cards, calendar listings and a final personalized invite.

Year One - Planning
Spring 2010

The first show was held in Spring 2010. The class initially brainstormed and selected an overall theme to build the marketing around. Since a new U.S. President had been elected and the government proposal for stimulus money was in current headlines it was a perfect theme to build on to communicate UIW students were a form of stimulus to aid design firms struggling in the economical doldrums. *Stimulus – 2010 UIW Senior Design Show* was the final choice.

Students signed up for committees based on tasks necessary to manage the event. The marketing committee started developing the overall look and feel of the show graphics. Tongue-in-cheek copy added to the feel of this government-style economic plan.

Planning involved learning all the issues in using outside vendors as well as the school's processes for insurance, payment and contractual agreements. Time schedules were developed for each step of the planning and used as grading points. A location venue was researched from many choices around San Antonio. Proximity to the design community, costs and parking were major criteria for final selection of location.

Year One - Marketing

Students gathered contact information through the internet, local business publications (*San Antonio Business Courier*), local professional organizations and other research. A teaser postcard was initially sent out followed by a poster rolled up in a mailing tube. The event information was posted to regional news boards such as business sites and AIGA on-line

calendars. A customized invitation was sent out to each contact. It contained a special stimulus card that the owner would bring and drop in a bucket at the event to win stimulus prizes. A web site and Stimulus Hot line were both set up to allow for additional information and R.S.V.P..

To save money several parts of the mailings were done with using rubber stamps or ink-jet printing in the department. All hand work was performed by the students themselves during class meeting times.

A final postcard was mailed to arrive three days prior to the event. A phone bank was considered to call everyone but due to students' tight schedule the idea was dropped.

Year One - The Event

To continue the theme large banners were created and hung around the space. Name tags were developed to indicate the students' as Stimulus Staff. Each student was given a display area with a Plexiglas resume and business-card holder. A reception desk greeted guests for the drop off of their Stimulus Card and picking up a Stimulus Piggy Bank to take as a reminder
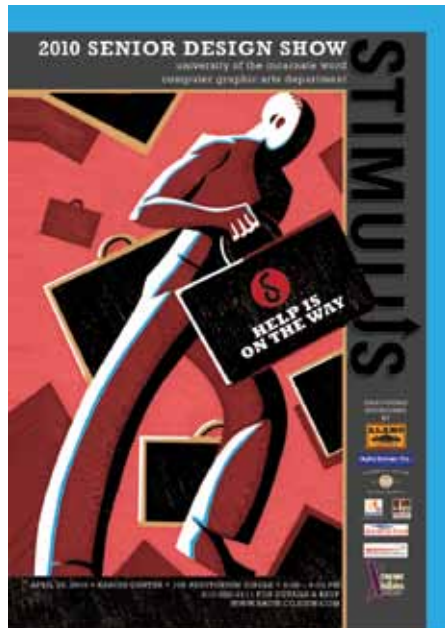
2010 Stimulus Show
Far Left: 2010 Stimulus Poster
Left: Inside of the Invitation with card used for 'Stimulus Prizes.'
Below: Stimulus Piggy Banks handed out to attendees.
Right: 20' tall banner for outside the event.

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2011 The Release
Above: 2011 Release Poster
Center Top: Profile Card
Center Below: Nail File Escape Mailer
Top Right: Attendee Bag
Bottom Right: Thank You Notes
Top Far Right: Data Banner

of the show. An extensive buffet and bar was available since the event was right at the social hour after work.

Stimulus prizes were awarded throughout the evening as names were drawn. This allowed tracking of the attendees and gather additional names and information for future events Approximately 150 people attended with a mix of family, friends and professionals.

As a final part of the class a Stimulus Thank You card was signed by all students and mailed out to outside donors and UIW faculty/staff that helped make the event a success.

**Year Two - Planning
Spring 2011**
Of course, the second year was not as difficult from a planning standpoint. Based on work involved from year one the faculty decided to change the credit hours for the seminar class putting it as a one-hour class that met only once a week.

It was decided that moving to a different location might encourage more participation and, again, create the atmosphere of an event.

A rehabbed loft-style office building, also near downtown, served as a perfect choice since many design firms officed there. This space needed some clean up prior to the event but did allow for open selection of caterer or just providing our own food/bar.

Year Two - Marketing
One class was used to brainstorm theme ideas. The group was narrowed down to a theme of *The Release – The 2001 UIW Senior Design Show*. This theme was based on the thinking that students were locked up for four years due to poor design skills. Now they had been rehabilitated and were being released on good behavior. Different incarceration elements were picked up for graphics, again, in a tongue-in-cheek humor.

The idea of a 'jail bird' was the center of the overall marketing and event decor. A graphics system was developed with a unique look/feel and promotional materials were built to support this theme.

An initial teaser campaign started by having a table at the local San Antonio Ad Federation's

ADDY Awards Banquet in early February. The students passed out post cards announcing the event. A show web site address directed guests to RSVP and receive updates about the event.

The next item that went out was a card with a nail file attached. The copy requested that the receiver use the nail file to 'break out' of their own cell and come join us at The Release party.

Within a couple of weeks before the event a much larger 11" x 8.5" post card/envelope was mailed out with as a full invitation to the event. E-mail blasts were also sent as a reminder and build up to the date.

Year Two - The Event
As guests arrived they were flagged into parking spots by volunteer Juniors. A large 4' x 6' back-lit sign announced the entrance inside the building. Once inside a video played on a large rear-screen projection showing each student's picture and profile made up to look like mug shot/finger print cards from the police. Each guest received a Release bag to hold resumes and business cards of students they were interested in talking with later. As guests

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went up the stairs into the event a variety of bird cages with open doors and escaping graphic birds adorned the space. A two-story banner draped from the second floor graphically presented facts about the four years the students spent doing time.

Once upstairs each student had a viewing area including a shelf for awards won, resumes and business cards to hand out. Food and beverage stations were scattered throughout the space and a DJ was on hand with upbeat background music.

Event Analysis

After two years of hosting this type of student-show event the faculty decided to reassess the benefits based on work involved, costs and the addition of the extra class. Having the main portfolio class in the fall also meant that many projects weren't ready to be put into their books and presented some confusion on how best to incorporate this time schedule into current senior classes and projects.

It was decided to give the class one more year but change the focus from a show to more of a promotional item. The main focus had always been to get students' work in front of the professional community and a show had its drawbacks. One was getting the community out to an event on a night after work. Since two different times and days of the week had been tried with not the best success that factor along with the fairly substantial costs helped push the idea in another direction.

Due to the lack of class time it was decided that the seminar class would go back to a three-hour class and the main portfolio class would remain in the fall for now. A new class schedule was drawn up and new ideas started on what this 'promotional' campaign would be.

Year Three - The 'Item'
Spring 2012

Within the first few class periods the idea of putting together a DVD animated promotion was the best route showing off not only print abilities but interactive as well. After some research on DVD duplication and printing it was decided to consider going with a USB drive instead. A business-card size flip USB drive was sourced and contracted for production.

2012 What Do You Perceive?
Top: Mailer
Center: Opened Promotion Package
Left: Opening of Video
Bottom Left: Sample Student Intro Page
Bottom Right: Final Navigation Page

Theme ideas were discussed and voted on for most interesting. The lead idea was based on a Rorschach or ink blot test. The idea being that each person sees something different in the image just as each student's portfolio is unique and viewed differently. An ink blot using the school's mascot, a cardinal, was used as the main focal point graphic. Then, each student's mark was built into a separate ink blot image.

The theme expanded into the overall graphics mimicking a vintage psychiatrist's notes, files and visual look. The idea of the right brain being a person's creative side and the left being the analytical side was incorporated into the final navigation page with the portfolio being linked to the creative side and the resume to the left.

Since this needed to be an 'in your face' mailer the USB needed to go out in some more intrusive form of mailing. It was determined that the original metal tin that was going to be purchased for the DVD would be perfect to mail this out in as well. Black foam was ordered to fit in the bottom of the tin and the tins were ordered at the same time.

The larger issue was in getting students to meet the deadlines for their portfolio pages, as well as, having their own personal logo design to be built into the opening presentation. Two students, who were mostly interested in web and motion graphics, volunteered to manage and build the introduction. Each student was given a set number of 'pages' and a template to showcase a sampling from their portfolio. Another section of the end navigation allowed for them to also present their resume and contact information.

Once the final file was built it was made into a PC and MAC version and reduced in size. The graphics for the USB and the file to be burned onto the USB were turned over to the duplication company and within a couple weeks the final USB arrived. An enclosed card contained copy communicating the theme along with the invite to analyze the work for themselves. One final class session was used to assemble the kits, wrap them with a sealing band, stuff them in envelopes and label for mailing.

The advantages to doing a mailing promotion over a location-focused show was a much broader market could be reached.

Since UIW is not as well known in other Texas cities it was extremely beneficial to use this as both a push for the graduating seniors but also as PR for the university. Very positive comments have already come back via student interviews with firms in the Dallas/Ft. Worth area and Houston.

Final Assessment

With the end of the third year the faculty have agreed that some form of promotional idea should be integrated into the portfolio class. It was determined that the portfolio class would move back to the Spring semester and the seminar class would be dropped.

Consideration to a more limited budget and less time taken in class are main goals for the upcoming years. With many competitive events, such as the DSVC National Student Show (Dallas Society of Visual Communicators), the course structure will be reorganized to include portfolio preparation, job interviewing skills and promotional project.

So far, reaction has been positive. Students who have attended portfolio review events have come back with words of surprise about a university that few knew of before. Word is spreading to these further-away markets making it easier for students to consider taking a position and be interviewed in markets other than San Antonio. This effort has built a momentum that, if continued, will begin to make UIW students and the design department more competitive and recognized in the larger state-wide and surrounding markets.

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5.3 Design Competency, Exemplary and Its Anomie in Design Education and Industry: Striving Human Capital as Professional Workforce

Sang-Duck Seo
University of Nevada, Las Vegas

Abstract

Hypothetic Scenario of problematic: *A graduate from 4-year traditional college spent over 60,000 dollars from financial aids for his/her design education. A year after graduation under the economic crisis, he/she is still looking for a job with a bachelor degree in animation. He/she is now optimistic about the future, but still doesn't understand why the obtained technology skills and a couple of short animated videos in his/her portfolio is not highly competitive in the real job market.*

The above scenario happens to many of our students in design education. Many post-secondary schools including vocational education institutions have revisited their program to adopt a new trend of the high-tech media for the new visionary mission; *graphic design, for instance, has expanded various disciplines or has shrunk only one specific discipline based on the high demand of current job requirements and qualifications.* Moreover, this phenomenon has appeared as a highly comparative and competitive qualification in the current job market. Many educators and students have questions about preparing future professions and many concerns have been raised about this discussion. Thus, this paper demonstrates arguments and viewpoints to educators for being aware of importance in design competency, and ask design educators what we need to keep and change based on modality of graphic art and design disciplines philosophically, theoretically and practically. In comparison to different perspective from traditional design education, this study also guides direction of the *'Design Competency'* based on business strategy and management. Davide C. McClelland addresses its definition as traditional academic aptitude and knowledge content tests, as well as school grades and credentials.[1] He also addressed in his book: *competencies are characteristics that individuals have and use in appropriate, consistent ways in order to achieve desired performance.* Delivering variety of disciplines is vey limited and difficult to be consistent, but it may vary differently depending on the academic requirements in general, proprietary vs. public, diploma with accreditation and institutional characteristics. Unless endeavoring to clarify accurate fundamentalism between literacy and illiteracy in academic philosophy, graphic design education will be in a constant dilemma as it moves toward vocational education. Educators should consider whether design competency defines/requires only intensive computer skillset on their hands or a variety of expended knowledge with critical thinking. What distinctive competencies are important to both educators and students? What mechanism should each two-year and four-year institutions have their own unique identity to direct students to purse their academic success? How can we remedy the *'anomie'*[2] for the efficient exemplary of design industry? Educators and education is the key to reinforce design the community as a professional workforce in the industry market: no cheap labor and sustaining professional career last longer.

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1 McClelland, D.C. (1973). Testing for competence rather than for intelligence. American Psychologist, 28, 1-14.

2 *Wikipedia*. (2011, November 26). Retrieved from http://en.wikipedia.org/wiki/Anomie Definition of anomie: social instability resulting from a breakdown of standards and values; also: personal unrest, alienation, and uncertainty that comes from a lack of purpose or ideals.

6.1 **Digital Photography: Emphasizing Concept and Process through Image Making**

Carol Faber
Iowa State University

Abstract

While digital photography liberates us from the technique-based traditional darkroom practices, there was a sense of experimentation integral to these traditional skills. A visceral experience, that if done correctly, achieved a balance of process, craft and concept purely through the time it took to execute successfully. This time is condensed in the digital photography experience resulting in quicker paced ideation and accessible imagery with fewer acquired skills. To some, digital equals quick and easy image capture. We now see digital cameras on just about every device possible—providing an instant image anytime and anywhere.

Finding new ways to bridge the gap of experimentation and "play" through digital photography and image making process are challenging, especially in the classroom, where time management by students is based on the next deadline. Experimentation and intuitive process are less common in the digital vernacular of image making. And, when students are asked to bring a sense of exploration to the photographic image, they tend to gravitate to simple image making, never considering that the camera can lead to a greater vision than just capturing an image.

This paper will discuss how digital photography can lead to greater connective concepts and bring simple processes through multiple levels of exploration. Projects presented will also explore techniques balancing the use of camera, digital tablet and scanner as a way to generate images on a variety projects, including exercises with typography. From the basic compositional forms and principles to complex digital narratives, several assignments will be discussed in terms of how they can be used to help expand the area of visual design and communication using digital photography as a way of creating a new vernacular.

Digital Photography:
Emphasizing Concept and Process through Image Making

Carol Faber
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While digital photography liberates us from the technique-based traditional darkroom practices, there was a sense of experimentation integral to these traditional skills. A visceral experience, that if done correctly, achieved a balance of process, craft and concept purely through the time it took to execute successfully. This time is condensed in the digital photography experience resulting in quicker paced ideation and accessible imagery with fewer acquired skills. To some, digital equals quick and easy image capture. We now see digital cameras on just about every device possible— providing an instant image anytime and anywhere.

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This paper will discuss how digital photography can lead to greater connective concepts and bring simple processes through multiple levels of exploration. Projects presented will also explore techniques balancing the use of camera, digital tablet and scanner as a way to generate images on a variety projects, including exercises with typography. From the basic compositional forms and principles to complex digital narratives, several assignments will be discussed in terms of how they can be used to help expand the area of visual design and communication using digital photography as a way of creating a new vernacular.

Introduction

Digital photography offers creative and innovative possibilities for developing visual ideation and concept development. Camera functions through aperture and shutter manipulation bring amazing effects of image capture. The digital flatbed scanner has the ability to encapsulate intrinsic qualities of objects through textures and surfaces. Creative experimentation using the digital

scanners by moving objects in the process of scanning or painting with light on the surface of the scanner bed are just some ways to increase image experimentation. Along with the camera, Photoshop provides students with a rich palette of potential tools and effects to develop imagery beyond the composed image of the viewfinder. Digital techniques of software can accompany the image making process bringing more technology literacy to each project assigned. The imaginative and creative aspect of digital photography should be the main focus with new technical aspects being added progressive in each assignment. This paper presents a series of five assignments of visual exploration that address the creative and conceptual possibilities of digital photography while developing a richer understanding of visual communication and story telling.

Visual Definitions through the use of Digital Flatbed Scanner
This compositional assignment requires students to consider elements and principles of design by breaking down those terms into complementary meanings. Students use the digital flatbed scanner by arranging man-made or natural objects on the glass surface to define the following words: Anomaly, Contrast, Gradation, Similarity and Texture**.** By using one word, the goal is to solve the definition by the arrangement and rearrangement that would best define each word. Students are to make sure the image conveys the meaning for the viewer instantly when compared to the list of words. This assignment not only addresses compositional principles and dynamics, but also how the digital scanner can provide a rich and detailed image to manipulate. Introducing Photoshop to this first assignment also helps the visual enrichment and meaning. The focus of this assignment is to encourage students to play and discover new images by using the software and working through layers, blending modes, integrating imagery, and the various processes beyond filter manipulation.

Camera Functions: Aperture and Shutter
While at the same time students are learning software and the ways in which to digitally manipulated using scanned image, they are also assigned photographic assignments that allow students to understand the use of their camera. Working with aperture and shutter controls, students are assigned to capture twenty-five images each of color, texture, place and mood. To help manage the amount of each category, students are instructed on the use fast and slow shutter settings, with high and low numbered aperture positions to create images with a quality of depth, focus and blur surfaces while considering lighting and light quality helping to convey greater meaning. These photographs can be used along with the manipulation of the scanned imagery but students are responsible of for understanding and providing examples of fast and slow shutter imagery with exemplary images of lesser and greater depth of field. Photoshop is introduced using the first assignment imagery as the basis for the new composition. The focus of this assignment is to encourage students to play and discover new images using the camera.

Letterforms Integrating with Type and Grid

This photographic assignment is designed to improve the ability of student's seeing in new ways and to crop the compositional space. The objective is to photograph found letterforms from nature or architecture while attempting to capture the entire alphabet A through Z from the surrounding environment. The compositions must use natural light or available light and cannot be set-up or from signs and logos. Composition plays a major role in the effectiveness and interest in these images. Once students have photographed the entire alphabet compositions they are assigned to select twelve letterform compositions and make into an eight-inch square composition using a two-inch grid. Balancing the photographic image with type, students design using the letterform image and typography—paying attention to the negative spaces or the grid to complement the compositional structure of the letterform photographed. After students experiment with the twelve individual compositions, they select nine images and work together compositionally into a larger grid by changing color and connection to compliment the whole nine compositions working together as one image. This is a complex and difficult design assignment, which teaches compositional dynamics and connects of how photographic images work together in a system. This assignment also has the potential to teach aspects of layer management in Photoshop and printing for large format.

The Visual Sequence: Narratives from Simple to Complex

This photographic and image manipulation assignment requires students to select a subject to convey a connective narrative. Students photograph a series of seven to twenty five steps starting with a simple idea such as the movement of one's hand. By taking one simple idea, show that movement from beginning to end in a series of steps that are place together into one image. A simple way to think about this assignment is capturing motion through multiple exposures. After students have explored several simple narratives, they were asked to use this concept of multi-stepped narrative to create a complex narrative by connecting several topic or simple narratives in some way. Repetition and visual effective helped to connect as a cohesive series of five to seven images. In each composition, students should carefully consider the visual interest and how each image used in the composition might work together to create a cohesive whole. Students need to photograph and continue to experiment with the image making capabilities of Photoshop, considering how color and context play a part in the composition. These compositions should communicate the idea of a theme. Images need to have an active format area within the composition, utilize the visual space well using all edges with no limitation on the use of color and media. Student could work with digital photographs, scanned images, or any combination of these elements, trying to use their knowledge and talent to create the best results. This is a creative exercise to stretch visual communication skills.

Seven Deadly Sins through the Same Object Narrative

Another way to form a narrative is by providing a theme or topic centered on a found object. Giving students the option on which found object to use to create a narrative gives greater diversity in the final outcomes. The theme all students are to photograph is the seven deadly sins, which requires research with preliminary exploration through several objects before completing the final concept. Students are to create this in seven separate images, one sin for each image. The choice of objects students select can be anything, except a living thing. Some examples of objects are a chair, bicycle, toaster, a piece of clothing, and phone. The object selected does not have to be the focus of each image, just be represented in some way to give meaning to each of the seven sins.

Conclusion

Conceptually based assignments using digital imaging provide a direct connection for students to move into other areas of digital or dynamic media. The concentration in digital photography can and should be on visual communication and of the use of a more intuitive approach to design communication. The digital camera and supportive software have the unique capability to add many impressive visual techniques to help enhance the student's ability to see their environment and invent new ways of seeing. Once a base for creative and innovative assignments are developed, other concepts should be substituted to enhance the variations and their ability to capture endless visual exercises to strengthen any design curriculum while at the same time concentrating on digital imaging.

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6.2 Expressive Qualities of the Digital Environment: Drawing in Graphic Design Curricula

Carol Faber
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Abstract

Most design students begin their program of study with foundation classes emphasizing formal, traditional study of drawing and composition. Emphasis is placed on the importance of this foundation skill their first year. As the design student progresses into the major of graphic design their foundation of drawing and traditional skills is often replaced by a focus on the principles and elements of design, typography, composition and concept. However, does this focus discount the image generating processes of drawing, surface exploration, and mark-making techniques? Graphic design students typically relegate drawing to the role of sketching for ideation— rather than considering its expressive and communicative powers as a part of the final solution.

Our students rarely consider the connection between their traditional studio foundation course's time-honored medium approaches when developing images through software applications. They also discount their ability to draw through technology. However the computer can serve as a link between these mediums. It can become another way to invent exciting visual possibilities, especially with digital drawing tablets and traditional material in the digital environment. The marks and texture within a drawing or painting bring a richer; more accomplished quality to a communication piece— if the student embraces the opportunity.

This paper and presentation will show how a partnership between the image-based studio and graphic design studio can give unique, expressive qualities to the graphic design student's portfolio. This partnership produces designers who show evidence of expanded skill sets and the ability to take risks, producing richer results with more unique design solutions. When technical proficiency is part of the norm, image based design becomes an important point of difference for students entering a competitive design market.

EXPRESSIVE QUALITIES OF THE DIGITAL ENVIRONMENT:

Drawing in Graphic Design Curricula

Carol Faber
Associate Professor of Art and Design
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Abstract

As educators of graphic design students, we dedicate a large portion of our students' education to the principles and elements of design, typography, composition and concept. However, are graphic design programs becoming overly focused on creating a strong designer and discounting the image generating processes of drawing, surface exploration, and mark making techniques? Often students of graphic design relegate drawing to the role of sketching for ideation—rather than considering its expressive and communicative powers as a part of the final solution. When does image play a major role in the development of a graphic designer and how can that become more than just software techniques?

Graphic design students rarely consider the connection between their traditional studio foundation course's traditional medium approaches when developing images through software applications. They also discount their ability to draw through technology, placing drawing somewhere between foundation exercises and ideation. However the computer can serve as a link between these mediums. It can become another way to invent exciting visual possibilities, especially with digital drawing tablets and traditional material in the digital environment. The marks and texture within a drawing or painting can bring a richer; more accomplished quality to a communication piece if only the student embraces the opportunity.

This paper and presentation will show how a partnership between the image-based studio and graphic design studio can give unique, expressive qualities to the graphic design portfolio through the technological exploration of traditional studio material methods and techniques. This partnership produces designers who show evidence of expanded skill sets producing a richer result with more unique design solutions. When technical proficiency is part of the norm, image based design becomes an important point of difference for students entering a competitive design market.

Introduction

Most academic design programs can trace their practices back to one or two prominent foundational design schools. The preeminent one is the Bauhaus in Weimar, Germany. Architect Walter Gropius founded The Bauhaus in 1919. Its core objective was to reimagine the material world to reflect the unity of all the arts. Gropius explained this vision for a union of art and design in the Proclamation of the Bauhaus, which described a utopian craft guild combining architecture, sculpture, and painting into a single creative expression. *(History of Graphic Design—A Graphic Design Primer)* This emphasis of the creative expression is an ideal that often becomes subordinate in modern design programs whose focus is typically on the Swiss International style. This paper shares how the graphic design program at Iowa State University has begun to address this issue. Key to this success has been a greater focus on the integration of image making into the graphic design curricula through expressive mark making and digital drawing techniques.

Iowa State University Graphic Design Program

Like the Bauhaus, all design students at Iowa State take a common series of foundation classes focusing on form and creative expression before delving into areas of specialization. A juried portfolio process allows design students to matriculate into their major of choice after their freshman year. In their sophomore year (which is their first year in the graphic design program) students take main graphic design studios, technology courses, a design theory lecture, digital photography and general education classes. As juniors graphic design students take core graphic design studios, a print and digital production lecture, graphic design history classes, and option studios (covering areas of specialization in graphic design) and general education classes. The senior year involves a main graphic design studio class in the first semester and a capstone class in the second. Seniors also take a professional practices lecture, portfolio class and remaining general education requirements.

In our program expressive drawing and mark making has been reintroduced to students in a digital manner through the graphic design option classes their junior year. A course has been developed that provides expressive drawing techniques as an option studio. While it is not a required class, demand has soared as students realize the richness this cross-pollination brings to their graphic design projects.

Observational Drawing

The following paragraphs outline the drawing experience of graphic design students' in Iowa State University's program of study. Their first experience with drawing is observational. All design students in their freshman year enroll in an introductory drawing course focusing on the fundamentals of freehand drawing from observed and imagined subjects. Observed subjects include working from architectural settings, the landscape, still-life setups, and the human figure or self-portraiture. Imaged subjects include conceptual sketches of architectural spaces and sites and forms developed from

perspective theory. Line, shape, perspective and value studies are explored through a variety of drawing media.

In the sophomore year, students who are admitted in the graphic design program take a technical course in digital software. The main project in this class uses perspective-drawing skills and a vector-based gradient mesh tool to develop computer illustrations. This project incorporates the skills of observation with technical software to bring the drawing experience into their work. Additionally all graphic design students encounter drawing through ideation sketches, thumbnails, and storyboards for every graphic design project.

Expressive Drawing

Previously our graphic design students did not have expressive drawing opportunities past the freshman year—unless they were driven to pursue it as an independent study. In 2007, students interested in expressive exploration could take a course in digital techniques combining mixed media approaches with the digital environment. This class served the role of a fine art studio option needed in the graphic design curricula. The following year—due to the popularity and connection to digital image making—it became an experimental course called Digital Drawing. In the fall of 2011 this course became a permanent fixture as a graphic design studio option.

This course combined digital media with traditional mediums, working with the digital tablet, scanner and camera as both image-collecting and image-making devices. Objectives also focused on conceptual development, composition, digital techniques and connecting digital methods and processes to advance level projects. Drawing is defined loosely as a way of mark making for the purpose of making textures, surface details and illustrating realistically or abstractly as means of image making. It can also be defined as a way to draw from traditional experiences to generate images in the digital realm.

Conclusion

Current and future markets for our graphic design students demand a designer with depth, breadth and visual storytelling ability. To create visual stories that engage an audience a designer must have the capability to connect visually at an emotional level. Expressive drawing qualities in graphic design projects help achieve this. Understanding the abilities and potential of expressive mark making in the digital realm also helps students understand how to better integrate type and image—an age old dilemma for designers. Emil Ruder acknowledges this challenge:

> *In the art of Eastern Asia script and picture make a single entity, for*
> *writing is drawing and drawing is writing. Brush technique in fine*
> *art and the wood graver in reproductive graphic art determine the*

form of script and picture. This unite is alien to western civilization and harmony is difficult to obtain. In the pictorial work of the Middle Ages the pen or the graver still had the power to unify; but as technology advanced, two different technical processes were needed for script and picture. Printing types, which are cut in steel and cast in lead, are very difficult to combine agreeably with the picture. But as pictures are being used more and more in conjunction with typography, this is a problem that demands greater attention.

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But as pictures are being used more and more in conjunction with typography, this is a problem that demands greater attention.
(Ruder, 1967)

As technology continues to move forward in the twenty-first century, we may appreciate that today's innovations remove the technical dichotomy between image and type. We must encourage our students to explore these possibilities and take advantage of the expressive opportunities at their disposal.

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6.3 Integrating hands-on and digital methodologies for international poster design.

Elaine Cunfer
Kutztown University

Vicki Meloney
Kutztown University

Abstract

When faced with a graphic design problem, many students are uncomfortable with a hands-on process of exploration and experimentation. With the impetus being to use the computer for immediate, yet often shallow results. When searching for solutions to visual methods of communicating, students gravitate toward the expediency of downloading images or "borrowing" visuals from books, magazines or other copyrighted sources without thought to their own creative potential. Many students are simply unaware that it is illegal or immoral to use many found images without permission. By eliminating this scenario of appropriation we tap into the students latent creative potential.

We propose a presentation exploring ways to incorporate more traditional hands-on imagery into student graphic design work that grabs attention and promotes awareness on a variety of global and social issues. We will discuss simple methods of guiding student research, and conceptual problem solving used to create traditional artwork for a poster design that both inspire and educate the viewer. We will illustrate this process by showing many student examples, both in the creation/development stage and in the final design.

As students come to graphic design classes increasingly computer literate, many of them lack basic drawing and hand skills. In addition to lacking the skills, many of them do not see the validity of using self-created artwork in their design. Often it is the symbology of graphic works that break language barriers and communicates to the masses on a global scale. Understanding that this may be a new concept to the students, we try to guide them through the process beginning with simple techniques and building on those techniques to create unique/original designs. The computer becomes a tool or research, composition and delivery and not a substitute for creativity.

7.1 Structuring Experiential Learning in Design

Douglas Johansen
Jacksonville University

Claudia Scaff
University of North Florida

Abstract

This paper compares two different methods of creating an experiential learning opportunity for graphic design students. The idea that student learning increases as a result of applying their knowledge, for example, by working directly with a client on "real-world" projects, is one that is at the core of many design teaching philosophies and much research in education. Less attention has been paid to how such experiential learning opportunities should be structured.

When student groups work on projects originating from several different clients, it may offer increased opportunities for creativity and uniqueness yet may require additional planning and time. On the other hand, having student groups work independently on a single client's project may result in repetitive solutions that lack creativity.

To answer questions about how experiential learning opportunities in design education should be structured, this paper assesses the results of two classes of American students who participated in a Brazilian study abroad program sponsored by a US university. One class went to São Paulo, the other to Salvador. In addition to exposure to Brazilian culture through tourism, both groups engaged with Brazilian design through site visits with local design firms and designers.

The students who went to São Paulo worked with one non-profit organization. They were assigned to work on smaller groups to identify the organization needs, develop and execute creative solutions. In contrast, the group who went to Salvador worked with 3 local non-profit organizations. They were also assigned to smaller groups, and were able to choose the client they wanted to work with, likewise developing and executing creative solutions.

By examining the design solutions produced by the two classes, this paper provides unique insight into the students' perceptions of group dynamics, competition teamwork, collegiality and humanity in the context of an experiential learning experience in graphic design.

7.2 Working with a Client in the Classroom

Ben Hannam
Virginia Tech

Abstract

This paper looks at some of the advantages and disadvantages of bringing a client into the classroom to work with students. While learning experiences are something that teachers are eager to provide there are a variety of ways in which this experience can "go south" quickly. This paper will discuss several strategies that teachers can take to help minimize the chances of a less-than-successful outcome and create a positive and healthy learning experience that all can enjoy. Audience members are encouraged to share some of their own client-in-the-classroom experiences as part of this presentation.

7.3 Trials and Tribulations of Real-World Interdisciplinary Projects

Frank Baseman
Philadelphia University

Abstract

In University corridors and on college campuses across the land, the terms "collaborative," "interdisciplinary," and "real-world" are used in an attempt to simulate for students what they may encounter upon graduation when they will be expected to work with people from various disciplines. Creating and carrying out these simulated situations in the classroom—while conceptually desirable—can be rather difficult. The reality is that there are trials and tribulations that come with working on collaborative, real-world design projects while students are still in school (there's a reason why post-graduation is called "the real world"). These "speed bumps" can include, among other things: the expectations of real Clients in terms of competencies; level of quality of skillsets of the students and deliverables; the ability of the students to work productively together; expected time working on projects and turnaround time; and interaction with Clients.

Yet the **"Catch-22"** here is that there **is** much to gain from this process. Students can gain valuable experience working on real (rather than hypothetical) projects:
• presentation skills: explaining their ideas/their thinking to Clients in a way that is compelling and convincing enough for the Client to approve a particular direction.
• compromise: when a Client likes one approach, and student prefers a different one.
• respect for students from other disciplines: to become knowledgeable about how others approach their work, yet "be expert" in their own discipline.
• production: how to prepare a project for reality, to get produced, to work and communicate with vendors.

And Clients can get:
• professional quality design services.
• the opportunity to work with "young people." Clients like the unbridled enthusiasm, willingness and energy of the students, and their "fresh" perspectives.

The **"Catch-22"** of this situation is that these kinds of projects **are** far more difficult to teach in a classroom setting than your typical design class where all of the students are working on the same hypothetical project with no real Client to contend with. Quite simply, it takes a lot more time to: line up the potential Clients; to work out all the necess. details of project logistics, scope and timeframe; to deal with Client interactions; not to mention, actually produce the work.

At my institution, I teach a Design Workshop course where students have the opportunity to work on real-world, collaborative, interdisciplinary projects. There are wonderful upsides to this: teaching this course keeps things interesting and fresh, and I am constantly challenged. It certainly "keeps me on my toes," and I find that I am learning alongside my students.

I propose to present recent case studies from this Design Workshop course involving students working on complex, semester-long , collaborative, interdisciplinary team-based projects. I will discuss what I have learned (and what I am **still** learning) and some of the trials and tribulations I have encountered along the way.

5-15-12

Catch 22: UCDA National Design Education Summit

Virginia Tech, Blacksburg, Virginia, May 2012

"Lessons I'm Still Learning"

or

"The Trials and Tribulations of Working with Students on Real-world, Collaborative,

Interdisciplinary Projects"

There's a buzz in University corridors and on college campuses across this great land, as the terms "collaborative," "interdisciplinary," and "real-world" get bandied about quite a bit lately. These terms are used in classrooms in an attempt to simulate what students may encounter upon graduation when they will be expected to work with people from various disciplines other than their own. Creating and carrying out these simulated situations through project-based work in the classroom environment—while conceptually desirable and ultimately rewarding—**can**, in reality, be rather difficult. The reality is that there **are** trials and tribulations that come with working on collaborative, real-world design projects while students are still in school (there's a reason why post-graduation is called "the real world"). These "speed bumps" can include, among other things: the expectations of real clients in terms of competencies; the level of quality of skillsets of the students; the ability of the students to work productively together; scope of deliverables; the expected time working on projects and turnaround time; and overall interaction with clients.

Yet the "Catch-22" here is that there is **much to gain** from this process. The students **can gain** valuable experience working on real (rather than hypothetical) projects, specifically in these areas:

Students Gain: (slide)

• **Opportunity to Work with Students from Other Disciplines:** to become knowledgeable about/appreciate how others approach their work, yet "be expert" in their own discipline.

• **Presentation Skills:** explaining their ideas/their thinking to clients in a way that is compelling and convincing enough for the client to approve a particular direction.

• **The Art of Compromise:** when a client likes one approach, but the student prefers a different one.

• **Deeper Dive into Production:** how to prepare a project for reality, to get produced, to work and communicate with vendors.

• **A Sense of Community Service:** as most of the projects we have taken on benefit the community. "Community Based Learning."

And Clients Get: (slide)

• **Professional Quality Design Services**

• **The Opportunity to Work with "Young People."** Clients like the unbridled enthusiasm, willingness and energy of the students, and their "fresh" perspectives.

The "Catch-22" of this situation is that these kinds of projects are **far more difficult** to teach in a classroom setting than your typical design studio class where all of the students are working on the same hypothetical project with no real client to contend with. Quite simply, it takes a lot more time to: line up the potential clients; to work out all the necessary details of project logistics, such as project scope and timeframe; to deal with client interactions; not to mention, actually produce the work.

Currently, I am an Associate Professor and the Director of the Graphic Design program at Philadelphia University, where I have taught Graphic Design courses since 1998. During my fourteen years at PhilaU, I have had the opportunity to participate in and teach a variety of collaborative, interdisciplinary, real-world projects in a wide variety of formats and sizes. For the past several years, I have taught a practicum-based design studio course, the Philadelphia University Design Workshop (affectionately known as PUDW), where students have the opportunity to work on "real projects for real clients." From it's inception, this course has always been interdisciplinary—this most recent semester we worked on a team-based project with seven students from four different majors! Of course, there are wonderful upsides to this: teaching this course keeps things interesting and fresh, and I am constantly challenged. It certainly "keeps me on my toes," and I find that I am learning directly alongside my students.

This afternoon I would like to discuss—and present to you—a few of these projects in the form of case studies from this Design Workshop course involving students working on complex, semester-long, collaborative projects. I would also like to discuss some of the things I have learned along the way (and what I am still learning!) from these experiences.

Philadelphia University Design Workshop (PUDW) Course Learning Outcomes (slide)

• **Work productively in interdisciplinary teams.**

Share knowledge by sharing information, including project assets.

• **Demonstrate collaboration and interaction by respecting each others discipline**, yet "be expert" in your own discipline.

• **Develop communication and presentation skills** by presenting, interacting and communicating with clients on an on-going basis.

• **Understand the production process** to prepare a project for reality, to get produced; to work and communicate with vendors.

• **Produce professional level design solutions that communicate appropriately and effectively** while meeting client expectations.

Lesson #1. Try to Remain Flexible (slide)

Things can sometimes change from what was planned or proposed, to what can actually be accomplished either in the timeframe or for the cost of production. These things can happen, and as a metaphor for life, **"things can sometimes get messy."** Try to mitigate this by introducing the clients to—and making them aware of—the design process. Try to make sure their expectations are realistic to begin with—try to make sure they are prepared to engage in designer/client working relationship. This goes in the category of "educating the client"—and you know what—it's a very good lesson for the students to see. They begin to learn to ask the right questions. I have recently begun to use a Marketing Questionnaire/Project Brief which the client must complete prior to engaging with us to outline the scope of work as clearly as possible. This is then agreed upon and—in addition as an institution—we have begun to use a standard project agreement.

PUDW Case Study #1:

New Jersey State Police Gang Survey Publication and Website

"The Truth About Gangs in the Garden State" was a team-based interdisciplinary project with five students from three different majors working together (Graphic Design Communication, Interactive Design and Media, and Professional Communication). The end result was original writing detailing the narrative story about gang activity in New Jersey, culminating in the design and production of a 64-page + cover full-color publication and accompanying website. Further collaboration included working with students from the Issues in Information Design course on data visualization for charts, diagrams and maps. **(Play video; show slides)**

Lesson #2. Try to Keep it Simple (slide)

Teaching in this kind of environment is difficult enough—far more difficult than teaching any "normal" design studio course that I have ever taught. From lining up the projects months in advance to recruiting and staffing the course with the appropriate talent to take on the projects (admission to the course is by interview and portfolio review only). From communicating and interfacing with clients—both instructor/faculty as well as students—to keep them up to speed, to client demands and the "realness" of the project as opposed to the "fictitiousness" of the projects they get in their other design studio courses. Try to do whatever you can to simplify what is already a complex process, even if this means trying to manage the scope of work or taking on less projects.

PUDW Case Study #2:

"Cue" Autism Connects Branding/Identity, Proposed App and Website Design

Public awareness campaign about Autism. Working as an interdisciplinary team, the six Graphic Design Communication, and Interactive Design and Media students invented a social networking rating system where anyone along the Autistic spectrum could rate themselves according to a select number of personal sensitivities to environmental noise, traffic, lighting, cleanliness, temperature, and interactions. Inspired by the broad spectrum of environmental sensitivity, "Cue" is a personalized rating system developed to promote social networking within the Autistic community. The design system featured an Identity, a light-sensitive color-changing sticker, the design of mobile phone apps and a website for people within the network to stay connected. **(Play video; show slides)**

Lesson #3. Encourage Sharing of Assets/Information/Dialogue (slide)

The students can't work together productively if they are not communicating. So, obviously they need to stay in close contact with each other via texting, email, and other online resources—basically whatever means necessary (last year, it was the students that introduced me to Dropbox as a way of sharing files with each other).

In addition, I have been trying to get the students to understand the concept of what I call "collapsing of their projects." When they start out coming up with their own ideas, as the project progresses they may end up sharing the "creative assets" of various parts of the project. Last year, when the students were working on the "Cue" logo, I saw several of them start out with speech bubbles to connotate dialogue (among other things). But in the end, when I saw one person working on top of "another person's" logo attempts I knew that they were sharing the work; that they were working together towards a common/shared solution and that this was a good thing. To the point that in the end, the work was from the group and not any one person anymore. The students were no longer designing "for themselves." The work was for the greater good of the project/of the studio—for the client. An approach that happens quite a bit out there in the real world. This takes a while for them to understand—and to embrace—because so often in their other design courses it's all about their own individual solution.

Lesson #4. Allow Room for Students to Define their Own Roles (slide)

Allow the students to discover which roles they need to play within the group dynamic. Is one person a good leader?; another a good manager?; another someone that can write and communicate well. Is one of them a good presenter? Someone more gifted as an image-maker?, someone else a talented typographer? Try to allow the time and space for these roles to shake out--sometimes by choice—very often by necessity.

Lesson #5. Respect the "Blank Page"

Encourage brainstorming ideas from anyone in the group. When sitting around the table—everyone in front of their "blank pages"—any person or persons can blurt out ideas to begin to fill up the pages. No idea is too stupid; try not to edit; just "brain dump." Fill it up! The "visual folks" don't own the domain of the images, anymore than the "word folk" own the domain of the written word. Any person on the team should be encouraged to actively participate in these brainstrorming sessions. As the project continues, be sure to bring the larger

group back together again several times over the course of the project so that everyone on the team is aware of the big picture even after they have carved out their particular niche roles to work on.

PUDW Case Study #3:

Peace Day Philly Branding/Identity, Website, and Integrative Public Awareness Campaign

The "Peace Day Philly" project is a large-scale collaborative project with seven students from four different majors (Graphic Design Communication, Interactive Design and Media, Animation, and Professional Communication) working together as a team on a complex project with several deliverables: Branding/Identity/Logo; Business Stationery; Website; and Integrative Public Awareness Campaign including print (bus shelter and small scale posters) as well as motion (Animation), YouTube/Vimeo to be posted to the website.

Lesson #6. "Respect the Axis"

The horizontal axis is for "breadth," the vertical axis is for depth. In the horizontality of working closely together in a group, hopefully the students become more familiar with a discipline other than their own. Yet at the same time, they do need to perform distinct discipline-specific roles on the team in order to be productive and move the project along. Yes, at some point someone needs to be the writer (the word person), someone else the designer, and someone else the website guru. Even here, someone may be better suited to write the code and get heavy into the production of the website, while someone else may be better suited to design the look and feel of the site. Students need to become familiar with the other disciplines while remaining expert in their own.

Thank You.

 # # # E N D # # #

8.1 Designing Digital Content for the iPad. (The 1024 x 768 pixel World)

Chris Huitt
Pittsburg State University

Abstract

1. I would like to give a presentation on my experiences developing and teaching a class in Mobile Media Content Development.

2. Student experiences using iPads in my Layout and Design class, (after I was chosen by the Provost); to implement a trial for a university sponsored iPad Pilot Project. Survey results and student design examples. I have already developed a presentation on this as it was required I give a presentation to all university faculty after the semester ended.

3. Challenges faced with working with a new technology platform. Here's the "Catch 22", all of the work involved with sourcing, reviewing, updating, downloading, costing, distribution of iPads etc. Everything that really seems to get in the way of being able to actually design and create content.

4. Review of design software programs for the iPad, Adobe Digital Publishing Suite, Mag+, and Apple's iBook Author. Which programs were most successful and easiest to implement and design on the iPad with.

5. Teaching approach with a new technology. I would like to speak about our class group approach to learning. The best approached to date has been allowing students to teach students. Many of these new programs have come out weeks if not days sometimes before a semester starts, so I do not assume to be the authority, I am honest with the students that I am learning sometimes along with them. When one student learns an element they are asked to then teach it to the rest of the class. This has been highly effective to date.

Designing Digital Content for the iPad.
(The 1024 x 768 pixel World)

iPad
Pilot
Project

iPad
Pilot
Project

Chris Huitt

They all slip in, scan the classroom and position for a place they often tend to use for the rest of the semester, slowly settle in and then stare ahead, silently waiting. It's the first day of a new semester for these twenty-four university students. They are usually a tough crowd, not made any easier that this is a late afternoon class and they have already been through the routine numerous times today, syllabi review, grading rubrics, attendance policies, etc. It was a given that they would each be called out to introduce themselves, which only adds to their silence. Jerry Seinfeld would have a tough time winning a crowd like this over.

But I have the ultimate icebreaker waiting for each of them; they each will get the opportunity to use an Apple iPad2 for the semester. When I make the announcement, an explosion of emotions breaks the silence. Some students rise from their seats, some clap, a few shout out in disbelief, everyone starts talking to other people around

them, it instantly brings them together as a group. The atmosphere has now changed; students are asking questions in a rapid pace. "Are you serious?" "Can we take them home with us?"… So many I have to stop them so we can get the iPads checked out. We spend the rest of the class time going over the legal contract each student needs to agree to before they could be issued their iPad for the semester. Since this was a program with no advance announcement and the student was responsible for the replacement/repair cost of the iPad if lost or damaged, I thought it best to allow any student wanting to opt out to have that opportunity without affecting their grade in the class. A few students express some anxiety, but all twenty-four students sign and take possession of their iPads. It takes the entire hour and forty-minute class to complete. "I would like to end today by having you fill out the teacher evaluation for the course." It gets a good laugh. Everyone leaves smiling, including myself.

2012 | **iPad Pilot Project**

Background

That first day back in August 2011 was made possible by Dr. Lynette Olson, Provost and Vice President of Academic Affairs, and Dr. Brenda Frieden, Director of the Center for Teaching, Learning, and Technology. Dr. Olson first started the project by funding the purchase of 60 iPads and making them available to Dr. Frieden to administer a pilot project. Dr. Frieden contacted me in June about participating, to which I immediately agreed. I had previously discussed with Dr. Olson my use of iPads in the classroom the previous semester. I had applied for and received funding for 12 iPads through Dr. Bruce Dallman and the College of Technology. The iPads were used in an Advanced Layout and Design class, focused on creating content specifically for the iPad. This class has since evolved into Special Topics: Mobile Media Development. We met with Apple representatives at the end of July to discuss different approaches to the deployment of the iPads for the project. Two approaches were discussed, the centralized approach and the decentralized approach. With the centralized approach the university owns and controls the content on each iPad through one central computer that all iPads are then synced to. This would require setting up a university owned iTunes account through which all applications purchased would have to be funded, sent through and approved by an administrator and I felt like this would require a lot of IT and administrative help. The decentralized approach has each student set up their own individual iTunes account through which they purchase their own apps. I went with the decentralized approach.

50%
(12)

50%
(12)

Classroom
Gender
Demographics
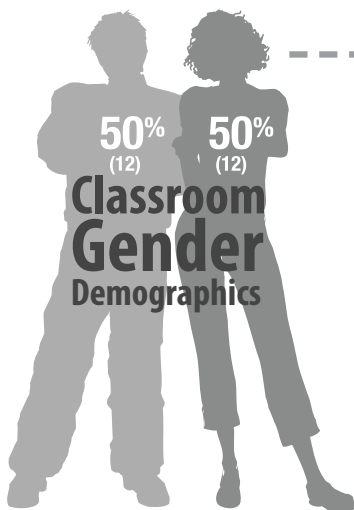
iPad Pilot Project | *2012*

Students with wifi at home.

23
(95.8%)

1
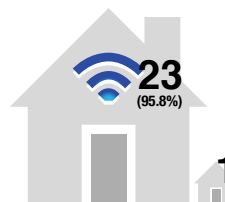
"**A decentralized system is one which requires multiple parties to make their own independent decisions.**"

Rohit Khare

Given the option:
eBook version or printed version of the required textbook for each class which would you choose?

eBook   **Printed**

eBook Version **72.7%**

Printed Version 27.3%

Approach

I adopted the decentralized approach for both the iPad distribution and use for the first half of the semester. Students were to make their own independent decisions on what applications would be most beneficial for them to use. Students were given the assignment of first simply becoming familiar with using the iPad, and secondly see how they might be able to use it in all of their classes. We would then discuss apps that they had found that helped integrate iPad use into their classes.

Class photo of the students who participated in the iPad Pilot Project.

Productivity = Apps.

From passive to productive

The first thing students realized is that an iPad, right out of the box, is a passive device, good only for viewing or reading content and that without apps you can't organize that content for class use. You need the ability to access, transfer and annotate folders and files for individual class content. The second major issue they encounter is that the present learning management system (Angel) that Pittsburg State University uses does not support Safari, the built in browser on the iPad. Content on Angel, when viewed using Safari only displays the first page of the document. The solution was the application Dropbox. By using Dropbox students are able to first download course content onto their personnel computer and then place these documents into their Dropbox account. Then they are able to view PDF, PowerPoint and Microsoft Word documents correctly on the iPad using the Dropbox iPad app. Apple had not yet released their iCloud at this time. This will not be an issue starting in the fall of 2012 when the university switches over to the new LMS system Canvas, which has it's own iPad app. After spending the first three classes discussing beneficial apps, answering any issues regarding setup and checking to make sure they all understood how to use them. Students were then left to make individual decisions on which apps. might work best for them. I only periodically addressed the iPad when student suggestions warranted it. We then proceeded with the lesson plans originally scheduled for my Layout and Design course.
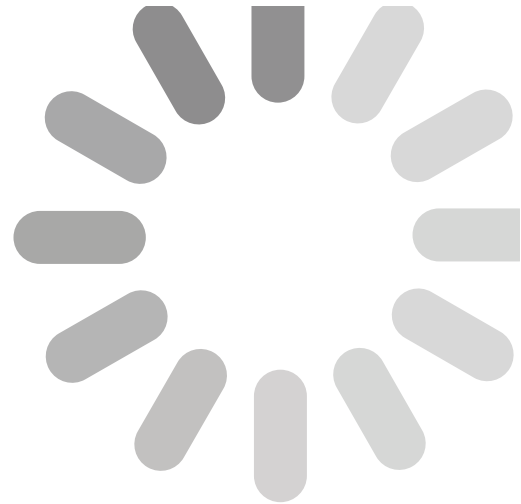
"It's all about the Apps."

Rated Most Benefical Apps.

File Organization …… Dropbox

Note Taking ………… Evernote

Recording … Dragon Dictation

Handwriting …… Penultimate

Annotation …… GoodReader

Class Organization … InClass

Wifi access in all of their university classes.

91%

2012 | **iPad Pilot Project**

Screenshots of student work.
Assignments 1, 2 & 3

Content viewing to content creation.

Doing an assessment by observation of student usage with the iPad from within the class was difficult since the Layout and Design class equips each student already with a Mac computer workstation. We use these workstations everyday so they are already logged onto them and access to Angel or other course content is easily accessible without using an iPad. What I began to do is send out short surveys and used these for the data you see throughout this article.

Starting just after the midterm of the semester I changed the approach of using the iPad. We moved from using the iPad as a passive e-reader, used only for reading content, to actually creating content for the iPad. I now required students to bring in their iPad for each class, and I started to do lessons on content creation using an Adobe InDesign software plug-in called Mag+. With this software students were able to develop media rich content in an InDesign document and then transfer or "Push" this content to their individual iPad for instant viewing and feedback. I originally thought of doing just one project, so they could get some exposure into what I have been doing with my students in Special Topics: Mobile Media Development over the past two

semesters. This one project expanded into three projects through the requests of the students who by a wide majority wanted to create more.

Creating content in Mag+ and then being able to instantly push/view that content onto their iPad and get instant feedback was very appealing. It brought them together again as class, everyone wanted to see what the others had created, they interacted with each other to solve problems, shared information through individual and group presentations. When an individual student came up with an impressive solution I would ask for them to do an informal presentation (if they were comfortable with doing so), showing everyone the process so we could all learn as a group. This helped the class learn as a collectively, helped individuals understand issues they couldn't work out themselves and in the process accelerated their learning. Whenever a student has the opportunity to interact they seem to always extend themselves a little further, spend more time in trying to solve problems, ask more questions about the possibilities and benefit more from the experience. Several students expressed that learning to create content for the iPad had rekindled their desire to use it more.

iPad Pilot Project | *2012*
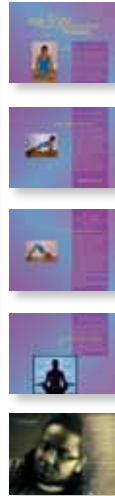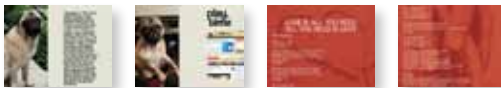
Mag+ software assignment descriptions.

The first assignment using the Mag+ software was to create an article that can be viewed directly on their iPad. The content was a review of their iPad experience up to this date. The other requirements were that it had to consist of multiple pages, have a scrolling layer for the copy that the viewer would use their finger to swipe to see and that the static background image would change from the first page to second page. This is one of the most common formats that you will come across when viewing an article in a magazine format on the iPad. Magazine articles viewed on the iPad usually are in a up and down or vertical scrolling format. Scrolling from left to right usually takes you to the next article in a issue.

The second assignment incorporated multiple pages again, but only one layer, so when the viewer swiped on the screen it would go directly to a different page, no scrolling takes place. This reads more like a printed article, except that again the pages scroll or transition vertically. The content, type and visuals were left up to the individual.

The third assignment was to incorporate the skill sets they had learned in the previous two assignments with the addition of adding interactive elements. Each article was to include; multiple links, some type of slideshow, and a video. The actual content of these were again left up to the individual students.

Assignment 3:
Student work example.

Assignment 1:
Student work example.

2012 | **iPad Pilot Project**

"Love it! Easy to carry, convenient to use and it does everything!!!**"**

"It came in handy with **5** of my **7** classes this semester."

"**I like it** a lot more than I thought I would. It's a lot more useful than I imagined."

How often do you use your iPad for:

■ Educational use?

■ Personal use?

78% (18) | 35% (8) | DAILY
17% (4) / 9% (2) | 3 TIMES A WEEK
17% (4) / 9% (2) | 2 TIMES A WEEK
17% (4) / 4% (1) | ONCE A WEEK
9% (2) | HARDLY EVER
4% (1) | LESS THAN ONCE A WEEK
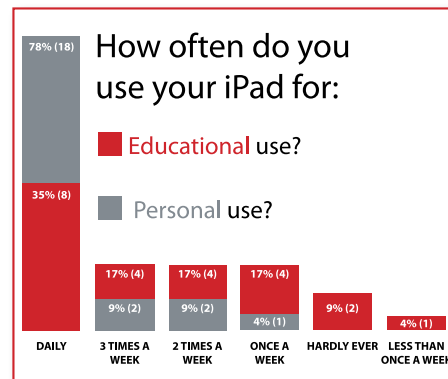
Future Applications.

Apple sold 11.12 million iPads during the 3rd quarter of 2011, a 166 percent unit increase over the year-ago quarter and just released, *(January 24th, 2012)* sales figures of 15.43 million iPads during the fourth quarter, a 111 percent unit increase over the year-ago quarter. This brings the total sales since the iPads release, just two years ago at over 54 million units. Apple is in the dominating position of tablet sales at this time and continues to expand rapidly on educational applications.

Just released, *(January 20th, 2012)* **iBooks Author**, is a free tool allowing users to create textbooks and publish them to Apple's iBookstore, which the company says will "reinvent textbooks" by allowing iPad users to access texts that are interactive and constantly updated and available at $14.99 and below. I suspect that this low pricing structure was a concession made between Apple and the large educational publishing houses to offset the $500.00 dollar price tag of the iPad. Comparisons will be made on traditional textbook pricing verses iBook2 pricing, an example might look something like this:

> **Traditional textbook average pricing = $75.00**
> **iBook2 educational textbook pricing = $14.99**
> (Traditional) $75.00 x 5 = $375.00 per semester
> **VS.**
> (iBook2) $14.99 x 5 = $74.95 per semester.
> **Textbook savings per semester = $300.05**

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Under this example the iPad's cost is recovered in the first year with a $100.00 savings. What really needs to be addressed is the adminstrative, IT, infrastructure, replacement, insurance, intial deployment costs etc. Still the ability to create and /or purchase textbooks with interactive animations, diagrams, photos, videos, and navigation really appeals to educators and students.

Together with sales and application development, Apple has placed itself as the dominant platform for educational usage today. Third party developers continue to develop innovative approachs to both organizational and educational applications. Apple's approach has always been to innovate, and this has helped them sustain a leadership role in all of their recent product releases. The technology while advanced is easy to navigate with very intuative user friendly interfaces.

The highest rated overall responses from students was how easy and fun it was to start using. They were able to immediately start adapting the iPad into their daily lives and with the help of a number of free apps. they were overall successful using it in their university classes. When asked to give their overall impression of the iPad students responded with, Love it! Easy to carry around, convenient to use and it does everything!!!

Select survey questions results.

Do you see tablet devices as the future dominant delivery source for most textbooks?

| **Extremely likely 30.4%** | **Very likely 43.5%** | **Moderately likely 17.4%** | **Slightly likely 8.7%** | **Not at all 0.0%** |

Would you suggest that Pittsburg State continue to utilize the iPad for future classes?

| **Extremely in favor 43.5%** | **Very in favor 26.1%** | **Moderately in favor 21.7%** | **Slightly in favor 8.7%** | **Not in favor 0.0%** |

How easy is it to get the resources you need for your iPad, in order for you to use it effectively for classroom assignments.

| **Extremely easy 18.2%** | **Very easy 22.7%** | **Moderately easy 50.0%** | **Slightly easy 9.1%** | **Not at all easy 0.0%** |

How many classes that you are enrolled in this semester do not allow you to use the iPad or any other electronic devices, during class time.

| **1 class 68.2%** | **2 classes 13.6%** | **3 classes 9.1%** | **4 classes 4.5%** | **5 classes 4.5%** | **6 classes 0.0%** |

Observations.

Possibly the most beneficial experience I had was one that I initially hadn't even thought of when I went into this, and that was the bonding of the class as group. The way that it opened up individuals to participate in discussions, be willing to let others know when they found something beneficial to have for the iPad, and to ask others for help when they did not understand a concept. We all learned together as a group, I did not take on the role as the "iPad authority," but rather as an active participant learning along with them and they seemed to value this approach. It seemed to let them express themselves more freely, without the fear of asking what an authority figure might considered a "stupid" question. Most questions directed towards me were answered, "I don't know, does anyone here have an answer for this?" This was almost always followed with numerous suggestions from students. We would then discuss the different approaches and the merits of each. I really got a sense of active learning and problem solving taking place during these exchanges.

Overall the vast majority of the students benefitted from having the iPad in their classes, of course some more then others. It still came down to how much effort they put into applying the suggestions and being comfortable using the technology. Students used their iPad more for organizing and viewing class content files then they did for taking notes during class lectures. Many commented that they were still more comfortable with writing down their notes, rather then using the keyboard on the iPad. Others were more comfortable using their existing laptop, and this is understandable since they were unaware that they were receiving an iPad to use for the semester until the first day of class. Students loved the size of the iPad, they liked the concept of having all of their heavy textbooks condensed into one small, lightweight portable device.

During this project I searched for effective ways to teach a class using the iPad. What I ultimately wanted to be able to do is wirelessly project what was on my iPad through our class projector, giving me the freedom to move throughout the classroom while still demonstrating. This turned out to be more difficult then I expected. It was not until after the semester ended that I finally worked out a reliable solution. In the future I now have not only the ability to show my own iPad on the projector screen, I also can also have an individual student mirror what is on their iPad onto the projector also. It is a very effective tool for student participation, and helps with group problem solving when everyone can visually see the issue.

Our iPad experience was honsetly a very exciting positive experience. Not only for the students but also for me as their professor. We experienced it together and helped each other succeed every step along the way.

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My Experience With Content Creation Software Options

Over the last year and a half I have developed a Mobile Media Development class focused on creating content for the iPad. During this time I have used the following 3 software programs.

1. Adobe Digital Publishing software
2. Mag+ software
3. iBooks Author software

All required for me to upgrade the operating system and software of some type, and to also keep up with numerous updates in the past year. The upgrades became so frequent that the IT department finally gave me my own administrator and password setup so I could do these myself. To setup for any of these programs the following list shows the minimum requirements you will need to prepare for before starting.

What you will need:

1. **The latest OS for your computers.**
2. **A strong wifi connection, to "push" to iPads.**
3. **Your own administrator and password setup.**
4. **Adobe Air, (for most applications.)**
5. **Apple Developer Program iOS SDK enrollment.**
6. **Xcode and iOS simulator tools.**
7. **InDesign 5 or above, (for most applications.)**
8. **Intel Core Duo or faster processor on computers.**
9. **Legal contract and system for administrating iPads.**
10. **Time and patience.**

Adobe Digital Publishing Software

Our first class used the beta version of Adobe's Digital Publishing Suite. The software had only become available a few weeks before class started. I took the approach that we were to learn to use the software together as a class, I was not the authority, and I assumed that students would probably surpass me through out the semester. We all learned each step together, as one person was successful with a step or process they would then instruct us all how to properly set it up. I really believe that this was an effective approach, everyone seemed to be motivated to learn the software.
A great deal of class time was used in learning the soft-

ware, file structure, and gathering information on how to use the software. Students did learn how to produce interactive documents that included slideshows, audio, video etc.
When the beta trial ended we could not afford the initial monthly pricing structure they introduced. This forced me to look into alternative programs that we could afford to use. Adobe has since adjusted their pricing and we are again looking into using it again. Information on educational pricing and usage seems to be difficult to understand. I have seen initial videos of CS6 and like the overall feel of the workflow and integration of InDesign and Digital Publishing Suite, but I am still not sure what the cost per station it will cost. We have just over 100 Mac stations, all with CS5.5 Production Suite and the cost off adding the Digital Publishing Suite also may be prohibitive. The department is in the process of contacting Adobe on this and their pricing structure on all their products going forward since they have changed their model to a hybrid type subscription based system.

Mag+ software

Searching for an Adobe alternative I came across Mag+ that offered free software to create files with. The only fee is when you want to actually publish the issue. I contacted the company and Mike Haney the US Director was extremely helpful, generous and open to helping us as an educational institution.
I have found Mag+ to be very easy to setup and start using. It is an InDesign based plug-in, and templates are supplied for using in your layouts. The software is unique in that it allows for the use of two primary layers, the A layer that scrolls above the B layer. The A layer is useful for scrolling text or images that span more then one page of content. The B layer is best used for background content. The B layer can change as the viewer scrolls through the vertical.
I have students first learn the file structures required, introduce them to the layers functions, pinning objects so the design will view correctly in both vertical and horizontal orientations on the iPad. The Mag+ platform tag line of "For creatives, by creatives" certainly rings true.
I have found it to be the easiest software platform to get to the business of actually designing. Their 28 page usage introduction is very clear and simple to follow. The

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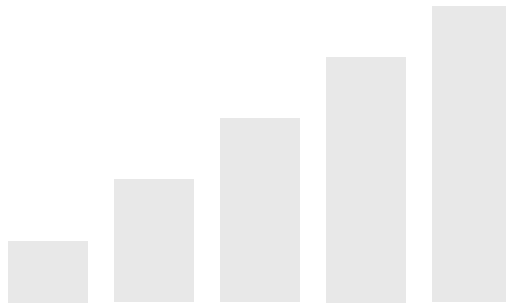
ability to "push" directly to the device for quick review is invaluable, the feedback is quick and corrections can be made right away and reviewed again for correctness. Students really love this feature, they learn by exploring and experimenting with what works and what doesn't.

The Mag+ components consist of:

1. Mag+ plug-in and templates. (For InDesign)
2. Mag+ Production tool. (To build and edit issues)
3. Mag+ reviewer app. (For the iPad.)
4. Feature Builder Site. (To create HTML elements)
5. Mag+ Publish. (For publishing your issue)

The features of Mag+ are:

1. Options for integrating video & audio.
2. Ability to embed interactive HTML elements.
3. Automatic design for both orientations.
4. Web-based apps & issues management.
5. Hyperlinking to other articles or built in browser.
6. Ability to customize look of UI controls.

Mag+ has been a great tool for students to use. They start off quickly, learn the basics and then soon start becoming creative with the tools provided. The ability to "push" allows for them to work through their own problems, they tend to only ask for help after they have repeatedly tried to solve it for them selves.

Mag+ is also a very effective tool in introducing HTML to a student and myself included. Mag+ allows you to place HTML elements or even entire pages into the template and again you can have quick feedback as to its functionality. We have experimented during this last semester by adding in simple HTML elements using code, such as an area where a user can tap and the keyboard comes up to enter in a note and then when they press the send button their e-mail pops up for them to send directly to us. Simple, but some students tend to run away when I mention code. When they see it in use they tend to go back in and customize it themselves to fit their own individual layouts.

 Mag+ with all of it's creative options has helped foster great interest with students in creating digital content.

iBooks Author

The newest of the three programs I have had experience using. During the last semester Apple introduced iBooks Author and offered it for free. The only requirement that I needed to meet was to upgrade our OSX to 10.7.2 or later to use it. Our department allowed for me to upgrade 24 computers in one classroom.

Of the three programs I have the least experience with iBooks Author. My experience to date is more of a test drive then anything else. I used previous pages of content already created in InDesign and dropped it into a template to see how it would flow as I customized the layout by adding other design and interactive elements. I must say that when adding interactive elements such as a video or slideshow, the elements seamlessly dropped right in. Resizing or moving was also effortless. I then started to drag in all types of files to see how iBooks would handle the files. I dragged in jpegs, pngs, Illustrator files, Photoshop files, groups of images, Mp4 files,PDFS, mpegs, etc. They all dropped right in without any issues. The only document that did not come in by dragging in, was an InDesign file.

The seamless ease of iBooks author is really amazing. I realize that the use of a template may put off some, but you can also customize the layout to your own layout. I have a copy of the layout now on my bookshelf in iBooks that I can use to display to a class through a projector or HD TV. I have been thinking of doing a few lesson plans using this as the delivery. I am not actually publishing the layout, I am simply storing it for review on my own iPad only.

Closing Update.

Apple released the third version of the iPad on March 16th, 2012. The new iPad's retina display screen doubles the resolution and quadruples the pixels of the iPad 2, from 1024x768 to 2048x1536. What does this mean for me and possibly you? Well it means, everything created to date has to be reformatted to meet the higher resolution, and yes, all of the programs mentioned before have to be updated. There goes the summer.

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8.2 Making the Case for Code: Integrating Code-Based Technologies into Undergraduate Design Curricula

Brad Tober
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Abstract

Contemporary professional design practice increasingly demands that designers, regardless of whether or not they focus their work on areas involving digital interaction, be able to understand the relationship between design and technology. This is especially true when working along with other, perhaps more technically inclined, members of a collaborative team. Technical proficiency is no longer measured in terms of one's mastery of various Adobe Creative Suite applications—these skills are surely to be presumed of any designer. Designers truly wishing to distinguish themselves are now expected to demonstrate a high degree of fluency in a variety of code-based technologies, such as HTML, CSS, JavaScript, Processing/Java, openFrameworks/C++, and Objective-C. However, if design students are fortunate enough to have any curricular exposure to these types of technologies at all, it usually takes the form of some ancillary elective course, serving only as a basic introduction that leaves students wanting to learn more.

This paper begins to frame an argument for a more comprehensive integration of code-based technologies into undergraduate design curricula, including at the foundational level, and presents initial case studies of practice-based assignments developed as a manifestation of this argument. Rather than treat design and technology as two immiscible entities, their effective integration throughout the entirety of a curriculum serves to benefit both students and the overall discipline of design. Engagement with the integration of design and technology offers not only valuable preparation for participation in the twenty-first century economy, but also the opportunity to expand and redefine the boundaries of disciplinary practice. In addition, this integration holds the potential to position code-based technologies as new media for teaching design alongside relevant critical and analytical thinking skills, and not solely as media through which design work can be executed.

Making the Case for Code: Integrating Code-Based Technologies into Undergraduate Design Curricula

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Introduction

There has been a recent push for individuals to learn how to code, positioning it as a basic skill that (literally) everyone needs to have. In response to this trend, Jeff Atwood, a blogger and software developer, recently posted an entry titled "Please Don't Learn to Code" on his blog *Coding Horror*. While certain points Atwood makes in his post might warrant a separate discussion, he claims that learning to code can be rationalized only if it helps one to perform his or her job better (Atwood). Increasingly, this is the case for designers, where coding has become a competency with significant value for design in both professional practice and education.

What are code-based technologies?

The term "coding" is more appropriate than "programming" in this context because many of the code-based technologies of particular interest to designers are not considered programming in a traditional sense. The use of each of these code-based technologies, however, requires one to have proficiency in a language understood by a computer. Some of these technologies include tools used for web development: HyperText Markup Language (HTML), Cascading Style Sheets (CSS), and JavaScript; languages used for mobile app development: Objective-C (on Apple's iOS platform) and Java (on Google's Android platform); and environments for what has become known as "creative" coding—the programmatic creation of images, animations, and interactions: Processing (based on Java) and openFrameworks (based on C++).

Why should designers know how to code?

Design is an increasingly inter- and multi-disciplinary field.
Contemporary designers are rarely able to successfully isolate themselves to working in a single medium. This means that, even if one is not particularly

interested in designing for digital media, it is likely that he or she will need to work on a project with a digital component at some point during his or her career. In many cases, this might involve working as part of a collaborative effort alongside more technically-inclined team members. Whether the project involves the design and development of a web site or a mobile app, basic familiarity with the code-based technologies that enable the creation of these design works can help to facilitate communication among team members.

Designers proficient in one or more code-based technologies have the potential to design both more efficiently and more cohesively.
Designers with more advanced knowledge of these technologies are able to transcend the traditional designer-developer dichotomy of many collaborative efforts. There often exists a disconnect in design work where one individual controls solely the visual form and another controls the technical execution. Code-savvy designers are able to control the implementation of their work, allowing for a more refined final product compared to one where a developer was involved with making design decisions. With adequate knowledge of the coding and development process, designers are also able to design for a particular digital medium, rather than in response to it, as they can better anticipate its potential technical quirks and/or limitations.

Design is an increasingly competitive field.
Designers truly wishing to distinguish themselves in a difficult job market cannot merely demonstrate skills in the use of various Adobe Creative Suite applications, as these are surely to be presumed of any designer. Experience with one or more code-based technologies is a highly marketable skill that can position a designer as a more versatile maker and, in turn, a more valuable asset to potential employers.

Why should design educators teach code at the undergraduate level?
Learning to code can help to develop critical thinking and problem solving skills.
Casey Reas and Ben Fry, the founders of the Processing environment, note that "[t]here are similarities between learning a programming language and learning a new spoken language" (Reas and Fry 145). It would then not be unreasonable to expect that learning to code would afford the student at least some of the benefits of learning a foreign language, which include the development of cognitive processes (Swarbrick 14). Sarah Tasneem, an Associate Professor of Computer Science at Eastern Connecticut State University, also

notes that coding is ideal for "teaching problem solving and critical think-
ing and has the ability to nurture and develop thinking skills which may not
be possible with other subjects" (Tasneem 1). This is, of course, in contrast
to learning to use specific software applications, which frequently involves
memorization and repetition to the point that tasks are often accomplished
with little or no thinking at all.

Teaching coding is a more effective use of resources than teaching software.
Since the introduction of the personal computer in the 1980s, design has
been plagued by its association with the use of particular software applica-
tions, to the extent that the use of these applications alone is often mistak-
enly considered design. Teaching software to students, as a core part of an
undergraduate design curriculum, only helps to perpetuate this unfortunate
belief. This type of instruction is also resource-intensive in terms of curricular
planning and development, as software applications quickly become obso-
lete and require frequent upgrades in order to adequately prepare students
for professional practice. Of course, when teaching software, instructors
must also remain current with their knowledge of the applications they are
to teach. Engaging with code-based technologies allows the use of software
tools that are open-source and/or freely available. Additionally, these tech-
nologies have much longer useful lives (for example, the HTML 5 specifica-
tion, which has been under development since at least 2007, is not expected
to be finalized for several more years) and share overarching principles that
can outlive the individual technologies themselves.

The principles of coding share conceptual aspects with the principles of design.
Learning to code is more closely related to learning to design than is learning
to use software. It could be argued that many of the commonly identified
principles of design (unity/harmony, emphasis, balance, rhythm, variety,
movement, and economy) could also be characterized as principles of
code. For example, the principle of emphasis, which establishes hierarchy,
is integral to the Document Object Model (DOM) in HTML, as well as the
programming concepts of inheritance and scope. The principle of economy
is inherent to the use of CSS, as well as to programmatic abstraction and the
use of "don't repeat yourself" (DRY) coding techniques.

Case study: Graphic Design at the University of Illinois at Urbana-Champaign

For many of the reasons expressed in this paper, the Graphic Design program in the School of Art and Design at the University of Illinois at Urbana-Champaign is currently undergoing an effort to integrate instruction in code-based technologies throughout its core curriculum. Like many programs, most technology-related instructional material was relegated to a separate elective course in the past. Based on surging student demand and interest, this approach no longer suffices, as resources only allow for this course to serve as a basic introduction that leaves students wanting to learn more. The following outlines both the current and planned efforts of the graphic design faculty to engage with code-based technologies in the classroom.

Design I

This foundations course is the first course in design that all art and design students take at the University of Illinois. While not a graphic design course specifically, all graphic design students will have taken it prior to matriculating into the graphic design major sequence in their sophomore year. In the fall of 2011, the author taught a section of this course in which students engaged in a one week crash course in Processing. Students were introduced to the essentials of using Processing as an image-making tool and created compositions exploring the basic principles of design.

Ninth Letter

Ninth Letter is an arts and literary magazine produced as a collaborative effort of both the School of Art and Design and the Graduate Creative Writing Program at the University of Illinois. Professor Matthew Peterson will teach the *Ninth Letter* course in the fall of 2012, bringing together graphic design, photography, and computer science students with the objective of extending the publication's readership by developing and releasing the semester's issue as a functional tablet app.

Digital Interaction

This course, formerly known as Sequential Design, has traditionally been the technology-oriented elective course in the graphic design program, targeted to junior and senior level students. As a new faculty member in the 2011–2012 academic year, the author reworked the course to serve as a broad-based introduction to design-related code-based technologies.

The first half of the semester covered HTML, CSS, and JavaScript, where students engaged in the process of designing an interactive narrative using a standards-compliant approach to code. The second half of the course was dedicated to Processing, where students explored its image-making, animation, and interactive aspects both individually as simple exercises and more comprehensively as an investigation into game design and development. It is anticipated that, in the near future, HTML and CSS will be covered in the sophomore-level Introduction to Typography and Introduction to Graphic Design core studios, leaving room for more advanced material in this course.

Advanced Graphic Design II

This course is a core studio that all graphic design students take the second semester of their senior year. In the spring of 2013, the author will teach this course as a pilot of an Advanced Digital Interaction course, where it is expected that students will engage with designing and developing functional mobile apps and large-scale interactive environments.

Conclusion

Rather than treat design and technology as two immiscible entities, their effective integration throughout the entirety of a curriculum serves to benefit both students and the overall discipline of design. Engagement with the integration of design and technology offers not only valuable preparation for participation in the twenty-first century economy, but also the opportunity to expand and redefine the boundaries of disciplinary practice. In addition, this integration holds the potential to position code-based technologies as new media through which to teach design and not solely as media through which design work can be executed.

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8.3 One Part Wood Type, One Part CSS: A Proposal to Integrate Letterpress Printing into Interactive Media Courses

David Richardson
Eastern Illinois University

Abstract

This paper summarizes a proposal to integrate letterpress printing into a sequence of four interactive media courses within a BFA graphic design program, and how this blending of old and new technologies will foster typographic finesse across mediums.

The author outlines how the coding languages of Cascading Stylesheets (CSS) and HTML can be paired with traditional letterpress techniques to educate students about the history and fine art of typography, from the parameters of the bed of a letterpress to the glow of pixels on a screen. The presenter, an interactive media instructor with letterpress experience, posits that by simultaneously immersing students into letterpress and CSS code as it relates to typography, and by highlighting their similarities, students will see more clearly the connection between the past and present of graphic design practice.

For such an immersion, direct experience with letterpress is critical, just as direct experience coding an interactive site is equally important. This paper advocates for the use of a small table-top press that can be an affordable entry-point for programs that do not currently have letterpress equipment. However, the presenter believes that, at a minimum, the handling of the equipment of "the past," the metal and wood type and leading, through visits to working regional letterpress shops — even this limited exposure to the past can have significant educational impact.

By giving "old" typographic technologies a tangible reference point for students through hands-on typography projects, and through quite similar and simultaneous hand-coded, CSS-based exercises, a new perspective will hopefully emerge: that today's technology is not divorced from the past, but rather continues to build on and to enhance it, positively.

Handouts will illustrate the conceptual and technical goals of this proposal, along with proposed projects and a break-down of the cost of purchasing entry-level letterpress equipment.

9.1 Ethnographic Investigations: Strengthening Authenticity and Inquiry in Design Students

Andrea Quam
Iowa State University

Abstract

Audience and context are often the foundation for design faculty's framing of project briefs; however, they often become subordinate in the final solution to aesthetic form. This creates a precarious precedence for young designers entering professional practice where blanket communications based on formal aspects continue to lose power. Technology now allows discerning audiences to customize the way they participate and receive information. These tailored approaches put designers in a position of accountability. Designers must understand how audiences are both different and alike, as well as how context affects the message received.

How can we best prepare students to become dynamic designers able to respond to this changing environment? They must be able to discover and define problems and audiences, as well as create successful and pleasing visual solutions. Studio projects that consistently allow design students to focus on designers, college students or 'general' audiences do not create the rigor necessary to develop a deeper understanding of various demographics. Nor do these projects help designers develop the abilities and methods necessary to determine audience's attitudes and behaviors. Design curricula must begin to expose students to a broader range of demographics and challenge them to base their solutions in specific audience characteristics and the context(s) that shapes the message.

This paper and presentation will outline how the introduction of ethnographic research into the framing of a studio project allows audience and context to become the guiding criteria for the problem formation, research and investigation of design solutions. This approach allows students to develop stronger research methods, more unique solutions and contributes towards a greater awareness of accountability.

Source referenced: "General Education and The Professional Study of Graphic Design" NASAD & AIGA Briefing Paper

Ethnographic Investigations

Strengthening Authenticity and Inquiry in Design Students

Andrea Quam, *Lecturer of Graphic Design*
Iowa State University

Abstract

Audience and context are often foundation for design faculty's framing of project briefs; however, they often become subordinate in the final solution to aesthetic form. This creates a dangerous precedence for students who are entering a workforce in which blanket communications to large masses is losing its power. As technology allows audiences to customize the way they communicate and receive information these tailored approaches put designers in a position of accountability. Designers must understand how audiences are both different and alike, as well as how context affects the messages received.

How can we best prepare students to become dynamic designers, able to respond to this changing environment? Designers that cannot only solve problems visually, but define problems and audiences? Studio projects that consistently allow design students to focus on designers, college students or 'general' audiences do not create the rigor necessary to develop a deeper understanding of various demographics' attitudes and behaviors—nor the abilities and methods necessary to help determine them. Design curricula must begin to expose students to a broader range of demographics and challenge them to base their solutions in specific audience characteristics and the context(s) that shapes the message. ("General Education and The Professional Study of Graphic Design")

This paper and presentation will outline how the introduction of ethnographic research into the framing of a studio project allowed audience and context to become the guiding criteria for problem formation, research and investigation of design solutions through project development. This approach allows students to develop stronger research methods, more unique solutions and contributes towards a greater awareness of accountability.

Introduction

The project introduced in this paper was first developed for a graphic design option class at Iowa State University titled: *Photography and Narrative Message [in Graphic Design].* This project was established to help students explore photography as a research tool as well as a final solution to a design problem. Additional objectives of this project were to help students develop a deeper understanding of their audience and become more rigorous problem solvers. As technology continues to change and design's audiences become more educated and able to customize the way

they communicate and receive information, the demand evolves for designers who can respond to these changes in a thoughtful, innovative manner. This means introducing design students to methods that will withstand such developments. In this project ethnographic research practices were introduced to help students understand their audience, frame a problem, as well as develop an empathetic design solution. These are skills needed for designers of the future. The must be able to approach design in a more advanced manner—moving beyond simply responding to creative briefs presented to them.

Ethnographic Research

Ethnography is a research strategy, created by anthropologists, that focuses of the link between human behavior and culture. Ethnographers strive to understand and separate the emic perspective from the etic perspective. Emic investigations define cultural phenomena through the perspective of the community under study. Etic investigations define cultural phenomena from the perspective of an individual who is not under study. Ethnographic researchers focus their efforts on understanding the internal, or emic, perspective of the community, using etic perspectives to augment the data gathered by an emic study. *(O'grady)*

Other important aspects of ethnographic research involve how the research is conducted. Observation is conducted in the demographics' natural environment. Subjects are not removed or isolated to a clinical environment for observation. This is key to developing an empathetic understanding of the group under study. The researcher is able to better observe through varied research methods the typical interactions, existing visual stimuli and cultural associations of the demographic.

Ethnographic researchers use a range of observation and information collection methods. They employ field observations with field notes, interviews, surveys, and documentation through various media such as: video, photography and/or sound recordings. Often using interviews and surveys, ethnographers will use snowball sampling to find informants for their studies. Informants lead to others, who tend then lead to more, and so on. A broad sampling is necessary to provide the researcher with an accurate representation of the emic perspective of the group under study. *(O'Grady)* Specific tactics used to collect ethnographic research include: photographic ethnography, observational research, visual anthropology, literature reviews, and focus groups. In photographic ethnography, subjects are asked to record their daily experiences with still images or video cameras. With this process, participants capture their own behaviors, motivations and attitudes by documenting them with images over an extended period of time. In the observational research process, the researcher views and records the human behavior and cultural phenomena of the demographic under study without questioning, communicating with, or interacting with them. Visual anthropology employs visual media to aid interpretations of cultural behavior. This tactic differs

from photographic ethnography by placing the camera in the trained hand of a researcher, rather than untrained hands of the subject. Literature reviews typically involve surveys of literature published about the group understudy. Focus groups are organized discussions with a limited number of participants (from the demographic under study), led by a moderator. The goal is typically to gain insight into the participants' views. Surveys and questionnaires ask participants a specific set of questions in a specific order so that responses may be collected and typically reviewed to realize commonality in responses to help recognize shared beliefs, feelings or views in the demographic.

It is worth noting that ethnographic research is primarily qualitative in nature; however, good researchers use several different tools to document experiences leading up to their final conclusions. This 'triangulation' of interviews, recordings, field notes and photographs helps confirm the researcher's distilled observations. Many ethnographic inquiries occur over an extended period of time, as deep immersion of the researcher adds to the validity of the study. Ethnographers are meant to be reflexive in their study. This means they must document their own process of research as well as give insight to their own person background, experiences, and perspectives. *(O'Grady)*

The use of ethnographic research to inform graphic design is not new. In his graduate work at Virginia Commonwealth University, Ben Gaydos' project titled *Visual Scavenger Hunt*, made use of photographic ethnographic practices. In this project the goal was to document the different (and often quite similar) visual landscapes people around the world encounter daily. He sent cameras around the world, hoping to share visual landscapes with one another, sharing the things that make communities similar, and also what makes them unique. These were shared through an online library of imagery.

IDEO is a 'design and innovation firm' who also makes use of ethnographic research in their design process. Their mission states they take a human-centered, design-based approach to helping organizations in the public and private sectors innovate and grow. IDEO identifies new ways to serve and support people by uncovering latent needs, behaviors, and desires. Human factors specialists at IDEO conceived a deck of 'method cards' as a design research tool for its staff and clients, to be used by researchers, designers, and engineers to evaluate and select the empathic research methods that best inform specific design initiatives. The cards use ethnographic practices in a variety of ways. The cards may be sorted, browsed, searched, spread out, pinned up—as both information and inspiration to human-centered design teams and individuals at various stages to support planning and execution of design programs. The focus of the cards is always to aid the designer/researcher to understand the perspective of the audience or group being studied. This strategy parallels ethnographic research's pursuit of the emic perspective.

The American Institute of Graphic Artists (AIGA) has also recognized the value of ethnographic research in the design process. It has produced a simple and straightforward primer introducing the crucial role ethnography plays in designing. "Great design always connects with people," states AIGA. Designers inspire, provoke, validate, entertain and provide utility for people. To truly connect,

designers need to have compassion and empathy for their audiences. This is what ethnography can provide. Designers need to understand the relationship between what they produce and the meaning their product has for others. And they need to observe the people they are designing for in their own environments. *(AIGA & Cheskin)*

Project Parameters

This design studio project was framed as a scenario to help give students an understanding of the relevance and the importance of design research in professional practice. They were told they worked for a renowned advertising agency (or service-oriented nonprofit). Their agency/organization has realized a demographic that is currently not being targeted for marketing (or are under served). They were told it was their job to create a three-piece campaign (for a proposed product or needed service) that connects with this audience; however, before they could do so they must first understand them.

It was to be a group (demographic) that has not been focused on before, so some ground work had to be established. As the designer creating a campaign to communicate with this group they were told they were the research 'lead'—taking a visual approach. As part of the design process, students were required to craft a presentation of their research that was persuasive and spoke clearly to their creative director and the principals at their firm/organization in order to gain their 'buy in.' They were required to submit a report and give a presentation to help their creative director and principals understand the demographic and the designer's proposed direction. Students were introduced to ethnographic research methods to develop an understanding of their selected group to identify the problem they determined was pressing for this group. The research was also to help fuel the development their concept for the solution.

For selection of their demographic, students were told their group must differ from themselves in at least one of the following designations: age, geographic origin or area of interest that brings the group together. They were given three weeks to conduct their research with the group and told they must do direct observation for a minimum of six hours. It was also specified the six hours could not all be done at once.

In the documentation of their research, students were required to present a delineation of their demographic, observation methods, data collected from observation, analysis of data and interpretation of opportunities, literature review and 'mood boards.' The mood boards were boards/pages, which exhibit colors, typography, graphics, images, photography, and visuals that are pertinent to their demographic as determined by your research. This research had to be presented by each student in a five-minute presentation to show their thoroughness of research, generate discussion and provide an opportunity to polish presentation skills.

In the second part of the project, the students determined the design problem to be solved

for their demographic and how they would do so. Key to this process was the determination of their demographics' 'pain points' as explained in AIGA's *An Ethnography Primer*. After approval of their proposed problem to solve, students proceeded to developing a visual solution for the problem they had discovered. This process took the standard route of ideation, sketching, critiques and multiple mockups.

Outcome and Future Directions

As shared in the UCDA presentation, solutions for this project were varied and the demographics students elected to address were ones not typically seen in student design projects. Students were forced to explore solutions and demographics beyond the obvious due to the parameters delineated for the research. There are many possible future directions for the development of this project. One possibility is introducing it to other disciplines within our design college, such as industrial design. It would also be of benefit to introduce this project in a class not tied to the investigation of a specific media. Some students found it limiting that their final solution had to be photographic due to the nature of this class. It is also to be encouraged that instructors insist on a rigorous selection process as the students determine their demographic. Possible way to improve this include preselecting the demographics and randomly assign them, or increasing the criteria of selection for their demographics (if self-selecting). It was originally anticipated in the development of this project that the demographic used to define the problem ach design student would address would also be the audience for the solution. It is important to note this assumption is not always the case and considerations should be made for this. One of these considerations is the development of the mood boards. In this project, mood boards were developed at the end of the research project for the demographic researched. It is suggested they be developed later in the process as a part of the ideation for the design solution. This allows the mood board to be developed specifically for the audience of the visual solution. In developing projects for design students, modifications and improvements will always be possible; however, the introduction of ethnographic research to studio projects creates a greater focus on audience, introduces more rigorous research methods, and focuses design students on empathetic solutions that communicate more effectively with their audience.

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9.2 Cultural Identity in Design : Reason : Reflect : Respect

Archana Shekara
Illinois State University

Abstract

Our community is filled with people of great diversity, not only ethnic, but also economic, educational, and social. Today's graphic designers should strive to create designs that are authentic and relevant to the multicultural audiences that we serve. By adopting new research methodologies, students from "Special Topics in Graphic Design" explored a variety of approaches to the issues of audience diversity through experiential and transnational service learning. The paper presents the research methodologies adopted by students to understand multiculturalism in graphic design without stereotyping, including ethnographic research of their ancestral country followed by a process of reasoning, reflection, and respect, through which students developed a series of meaningful designs about their ancestral country and collaborated with local not-for-profit organizations in the community like the American Redcross, Bloomington Public Library, Western Avenue Latino Community Center, Multicultural Lead- ership Program and McLean County India Association. Through these projects, students cultivated a new sense of transnational activism, increased their understanding of creating design for cross-cultural audiences, expanded their visual and design research vocabulary, and above all, found a new respect for other cultural identities in the West.

2012 NATIONAL UCDA DESIGN EDUCATION SUMMIT

Archana Shekara
Assistant Professor, Area Coordinator : Graphic Design
School of Art Honors Program Coordinator
Illinois State University, Normal, Illinois

Cultural Identity in Design :
Reason : Reflect : Respect
(Paper/Presentation Abstract)

Our community is filled with people of great diversity, not only ethnic, but also economic, educational, and social. Today's graphic designers should strive to create designs that are authentic and relevant to the multicultural audiences that we serve. By adopting new research methodologies, students from "Special Topics in Graphic Design" explored a variety of approaches to the issues of audience diversity through experiential and transnational service learning. The paper presents the research methodologies adopted by students to understand multiculturalism in graphic design without stereotyping, including ethnographic research of their ancestral country followed by a process of reasoning, reflection, and respect, through which students developed a series of meaningful designs about their ancestral country and collaborated with local not-for-profit organizations in the community like the American Redcross, Bloomington Public Library, Western Avenue Latino Community Center, Multicultural Leadership Program and McLean County India Association. Through these projects, students cultivated a new sense of transnational activism, increased their understanding of creating design for cross-cultural audiences, expanded their visual and design research vocabulary, and above all, found a new respect for other cultural identities in the West.

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Cultural Identity in Design :
Reason : Reflect : Respect

Before I present my "Special Topics in Graphic Design," which I taught last Spring 2011, I believe that its important to share some background information, and my reasoning to address and teach the topic of cultural identity to design students.

Prior to teaching, I have worked in several design studios as an Art Director creating work for varied clients. In order to be more inclusive of a diverse ethnic population, I have been repeatedly asked by many clients to simply include images that display ethnic diversity. It is easy and cost effective to download stock photos that depict interaction between groups of individuals from various ethnic backgrounds. Including these types of images in their campaigns, companies assume that they have succeeded in advocating diversity. As I continued working, I began to question these assumptions. Was using such images truly speaking to a diverse ethnic audience? Was this effective? Did it truly communicate anything?

In the past five years I have been conducting research in cultural identity in design. I thoroughly researched about my own identity as an Indian American, and created design projects based on this research. Then I studied Japanese Art and Aesthetics — Ikebana and Tea ceremony under Prof. Emeritus Kimiko Gunji at Japan House, at the University of Illinois in Urbana-Champaign. I became more aware of the cultural similarities, as I found new methodologies in studying and designing for a cross-cultural audience. This awareness and respect greatly influenced my design work and pedagogy.

It was my turn last Spring to teach Special Topics in Graphic design class, and I wanted to share my research interest with students. The curriculum in Special Topics class encourages faculty to experiment, and share their research with students. Along with teaching design skills, I wanted to inspire and challenge design students to broaden their experiences, understanding, and sensitivities to other cultures.

Patricia Boman, Managing Partner at Art & Design Educational Advisors, in St. Louis, writes, "Being a graphic designer in a global economy requires you to think about cultures and communication in a whole new way. Designers are now required to not only be thoughtful, but also sensitive and strategic in their thinking around cross-cultural design." It is crucial especially for American students to understand national and ethnic groups who might be their future clients or audiences. Its critical that we educate future designers to be more holistic, sensitive, eclectic, empowered and sustainable by respecting different cultures and representing them appropriately. This approach will help students to break perpetuating barriers and to expand the new means of speaking to their clients and audiences.

Archana Shekara
Cultural Identity in Design : *Reason : Reflect: Respect*

The Special Topics class met at 8 am thrice a week for 2 hours. It way early for Art and Design students, hence Starbucks and food came in handy. I began the course discussing with students about the role of today's designer — It has become crucial to familiarize ourselves with other cultures since we live in a global, multi-cultural society. We are required to be aware of current happenings and trends in media, business, technology, fashion and social culture. Our audiences vary in ethnicity, language, religion, gender, race and class. In order to create designs for diverse audiences, it is imperative that graphic design education addresses and promotes inquiry and understanding of cultural diversity, and familiarizes students to create designs that are authentic, meaningful and far-reaching in a global context.

When designers in the West are asked to design for audiences from another culture, our usual research method-ology would be to begin with Wikipedia or Google, may be refer few books, and then start to design what we think we know about that country and its culture. For example, if the country is Japan, we may try to use fonts that look like Kanji characters, or strokes that resemble *sumi-e* (Japanese ink paintings), or we may seek out images that have Japanese people clothed in kimonos or beautiful geisha. Above all, we may recollect the coun-try's food that we are most familiar with in terms of culture. We remember the gorgeous presentation of sushi, people's hospitality and the exotic music. Perhaps this is the beginning of our investigation, but the geisha, ink paintings and fonts are all overly used images from Japanese culture. These images are easy to obtain and super-ficial. They limit the audiences' perceptions and do not communicate anything substantial about the culture.

In order to cognize and appreciate another nation's socio-culture, we have to first familiarize ourselves with our own cultural identity — our behaviors, beliefs, values, and norms. Once we are comfortable with our own iden-tity, then, we can understand, appreciate and respect the similarities and differences with other cultures. Hence I asked students to create an information poster exploring an object from their ancestral cultural background as their first project. It was a 3 weeks project. The object chosen should educate them as well as their peers. Typog-raphy for the headline must be inspired by the cultural object. It was important to avoid being literal and using superficial imagery. Imagery used should be the essence of the object and not a picture of the object itself.

Since most students were from varied ethnic origins, they each selected one ancestral country and strove to understand its roots. Students conversed with their family, read online articles and used the library as their resource and designed their poster using the colors of their national flag. This constraint helped students to learn about the meaning of the flag colors and their country's history. To better understand the importance of family and national identity, I invited Professor Dr. Kyle Ciani from the History Department at Illinois State University. She teaches the History of American Family, and I requested her to share her thoughts with my design students. Her presentation was about the growth in American families, traditions and culture, race and ethnicity.

For the second project, students were asked to design using appropriate media and form representing stereo-types, misconceptions or marginalization of their ancestral country in popular culture. Since they had studied their country's cultural history, language/s, typography, customs, traditions and beliefs, they now had to conduct research on how their country has been stereotyped, the country's heritage and cultural history diminished in the past or current times. As a citizen designer they had to represent these misconceptions as metaphors.

Archana Shekara

Cultural Identity in Design : *Reason : Reflect: Respect*

After doing these two projects about their ancestral country, it was time to address other cultures that coexist in our Bloomington-Normal community in the Midwest. I have also observed that the Latino population has increased tremendously over the past few years in the United States, and Spanish is considered as the country's second language. Hence, I concluded that it was imperative for students to learn about Latino culture and identity. I invited Director of Latino Studies Program at Illinois State University, Professor Dr. Maura Toro-Morn to present about Latino cultural identity. She talked about the biography, terminology, and history of the Latino community. She raised provoking questions about commonly used terminologies like Hispanic and Latino, assimilation perspective, assumptions and how identity is shaped by nationality. Her presentation helped students to gain better knowledge about Latino history, values and beliefs.

I introduced a new research methodology to students in order to conduct research to understand another culture. To truly understand other cultural identities, its crucial to understand and analyze our basal methods of perception using our five sense organs, and how these perceptions influence and affect our mind. This methodology is simple and meaningful so that anyone can understand and accept.

Food, Body, Space

Food and body ware are the two most important aspects that people from any culture can relate, understand and compare regardless of backgrounds or ethnicity. Space is the third element. The organization of space is culture specific. It is a crucial element necessary when presenting a culture.

Students conducted group research on Latino food, body ware and the organization of space. They classified adjectives with their esoteric meanings and cultural relevance using imagery. By using this methodology students were able to understand Latino identity. I introduced students to various other cultures that were present in the community. They followed similar methodology and studied Indian culture and attended a Hindu temple event. Students learned about Japanese culture and art by visiting Japan House in Champaign. They ate a Japanese meal hosted by Prof. Jennifer Gunji., Interim Director of Japan House. Students toured the Japanese gardens and participated in Chado, the Japanese tea ceremony hosted by Prof. Emeritus Kimiko Gunji.

After presenting students with new understandings about various cultures, students were ready to create real work for real clients. To achieve success in student learning, it was crucial to create designs for clients in the local community. I wanted students to apply what they had learned. I believe that experiential learning helps students to learn new vocabularies to communicate with diverse audiences, and I opted for service learning.

I invited Mr. Phani Ayitam who is the founder of the Multicultural Leadership Program, a non for profit organization which trains individuals in the community who aspire to become diverse leaders. He familiarized students with the term diversity which is not just limited to ethnicity, but is inclusive of various thoughts and actions. Students were asked to create a logo for the organization and also inspirational posters about leadership. These posters were displayed at MCLP's graduation ceremony last April.

Since students had conducted extensive research on Latino identity, I invited Deborah Halperin from the Illinois Wesleyan University's Action Research Center in Bloomington, and assigned projects for various non-for-profit organizations like the American Red Cross, Bloomington Public Library, Western Avenue Latino Community Center. Students worked in groups for these projects. The time line was four weeks.

Archana Shekara
Cultural Identity in Design : *Reason : Reflect: Respect*

Students also created an identity for the Festival of India which was hosted by the Mclean County India Association in Bloomington-Normal.

The McLean County Museum of History in Bloomington, and the School of Art at Illinois State University presented "Reason, Reflect, Respect," design exhibit along with a panel discussion about Cultural identity in design. The show was well received in the community.

By teaching this course, I believe I challenged students's perception and understanding of culture and the very purpose of design. These projects forced them to go beyond what is expected, and enriched their minds with curiosity and appreciation towards diverse cultures. Experiential learning promoted students to reason, reflect and respect other cultures. It is hoped that by doing these projects students become more aware of their civic engagement and responsibilities, gained a better understanding in creating authentic design for cross cultural audience, expanded their visual and design vocabulary and above all, found a new respect towards other cultural identities in the West.

9.3 Typo-Photo: An Attitude Towards Design

Mitch Goldstein
Virginia Commonwealth
University

Abstract

Graphic design is most often taught in a prescriptive way: this is right, this is wrong; this is good, this is bad. This is fine as students begin the journey to becoming designers—they have to start somewhere and being trained in the mechanics of design is a good place to start. There is technical, vocational knowledge to being a designer that must be learned at the beginning of the education process, but it is important that the technology only be a tool and not the primary focus of the students' education. Therefore, there is a point at which prescriptive teaching must end, and reactive teaching must begin. This is the moment when students stop trying to make the teachers happy and start trying to make themselves happy. When they stop thinking in terms of right and wrong and start thinking in terms of interesting or not interesting, engaging or not engaging, exciting or boring. Instead of pushing through to a final deliverable or idea, they instead react to the process of making and see where it takes them. Understanding prescription and reaction are both valuable, and designers work with both throughout their careers, however in design school reaction takes a notable back seat to prescription.

The role of the design educator should also be reconsodered. We can start to think of the design insgtructor as an instigator of design. The teacher is the person in the classroom who instigates the activity of discovery, the one who lights the fuse on the bomb of process. This is a valuable role for a teacher to have, especially one who is teaching upper class or graduate level design students. Students remain interested in being told what to do and how to do it for only so long; but give them a catalyst to investigate and discover in their own way keeps the students on their toes and encourages them to direct their own education. The instructor can act like a benevolent devil sitting on the shoulders of their students, whispering "what ifs" into their ears. The teacher can and should be both as critic and instigator—in addition to critiquing student's work, they are daring them to do it in the first place.

10.1 No Context: A Daily Experiment in Graphic Image Making

Marius Valdes
University of
South Carolina

Abstract

Visual storytelling has always been a significant and ever-present means of visual communication. *Graphis, Eye, Communication Arts, Print,* and *The New York Times Magazine* have all acknowledged the legitimate contribution of visual storytelling to the design community and society in general. These reputable publications have featured profiles of graphic novelists, photo and illustrative journalists, advertising agencies, and design studios that are immersed in the practice of storytelling.

This past spring during a junior sabbatical at my university I undertook a creative project to produce a daily cartoon called "No Context" using a methodology of combining fashion photography, comic book text bubbles, and hand-drawn cartoon characters. My objective for the project was to experiment in creating something that was an evolution of the visual style I have developed in the past ten years. I wanted to create images that were fast and spontaneous, usually in one hour. I wanted to recycle images and text from my childhood comic book collection and the stack of fashion magazines I had accumulated last year. Finally, I wanted to distribute the work immediately online and in the long-term through public exhibitions.

The result of this creative project was a new body of work consisting of one hundred new original works. I developed new methods of making images and a new way to express myself through found text. I developed images that are visually graphic and humorous by using the editing process of sifting through hundreds of comics to find just the perfect mix of image and text.

Recently, I exhibited the work during The Piccolo Spoleto Arts Festival in Charleston, South Carolina. This summer I will work with an undergraduate student to produce a printed publication of the completed works. My presentation will document this self-initiated creative project from concept to execution and it's future usage.

10.2 Teaching Discovery: Developing innovative Thinking in Design Curriculum

Stuart Morris
University of Wisconsin-
Stevens Point

John Smith
University of Wisconsin-
Stevens Point

Abstract

We all strive to teach students to create innovative solutions to graphic design challenges. We encourage research, investigation, and process as catalysts for innovation.

However, when design student research is reduced to browsing pre-existing solutions and design process is relegated to amalgamating these solutions, originality and innovation falter. As students become more familiar with processes based on reference points they discover in existing products, refinement and improvement replace brainstorming and discovery. Digital tools increase students' ability to search and browse, and this leads to a process that substitutes cleverness for innovation.

Teaching in a climate of searchable solutions requires new educational strategies. Graphic design curricula must react to this new paradigm, introducing students to challenges that encourage exploration outside of the realm of pre-existing solutions.

This paper will outline strategies for curriculum development that use research and project goals to emphasize process that leads to unique innovative discovery. The paper and presentation will share specific projects that focus on teaching process-based design that avoids searchable corollaries. The paper will also present and examine how these methods can be applied throughout an undergraduate BFA graphic design curriculum.

Teaching Discovery

Developing Innovative Thinking in Design Curriculum

Stuart Morris

Associate Professor of Graphic Design

University of Wisconsin-Stevens Point

John O. Smith

Professor of Graphic Design

University of Wisconsin-Stevens Point

Introduction

We all strive to teach students to create innovative solutions to graphic design challenges. We encourage research, investigation, and process as catalysts for innovation.

However, when design student research is reduced to browsing pre-existing solutions and design process is relegated to amalgamating these solutions, originality and innovation falter. As students become more familiar with processes based on reference points they discover in existing products, refinement and improvement replace brainstorming and discovery. Digital tools increase students' ability to search and browse, and this leads to a process that substitutes cleverness for innovation. Teaching in a climate of searchable solutions requires new educational strategies. Graphic design curricula must react to this new paradigm, introducing students to challenges that encourage exploration outside of the realm of pre-existing solutions.

This paper will outline strategies for curriculum development that use research and project goals to emphasize process that leads to unique innovative discovery. The paper shares specific projects that focus on teaching process-based design and avoid searchable corollaries. The paper also presents and examines how these methods can be applied at three levels in an undergraduate BFA graphic design curriculum.

What is the goal of design curriculum?

Originality

Innovative Thinking

Discovery   Creativity   Critical Thinking

How do we encourage this innovative thinking?

Exploration
[as we expect it happens]

{

Brainstorm   Word Map   Photograph   Experiential   Diagram   Sketch

What actually happens when students are assigned a project . . .

Imagine a student project:
Design a logo and packaging for a Dairy Company

Search for "Dairy Company Logo"
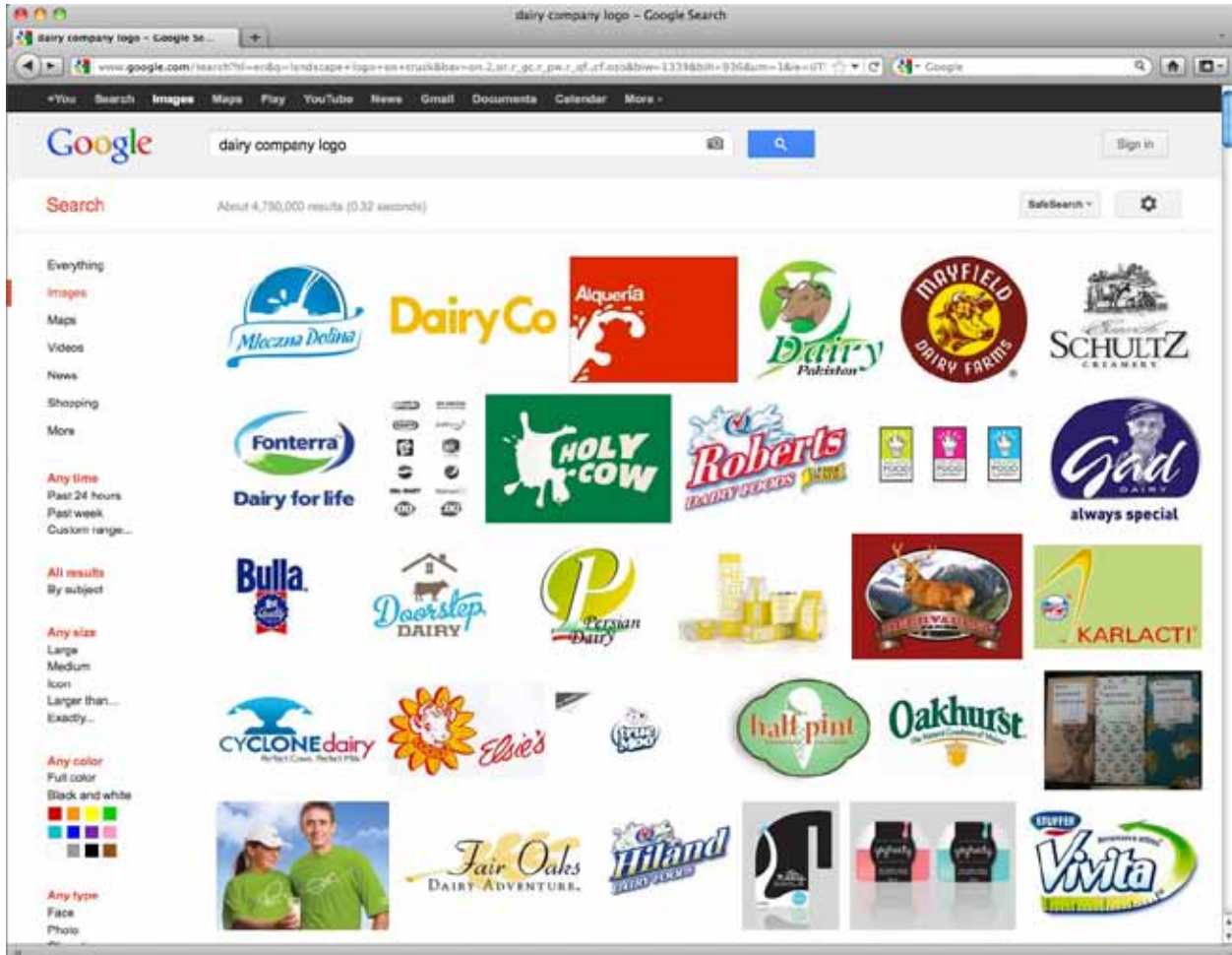
Search for "Milk Logo"
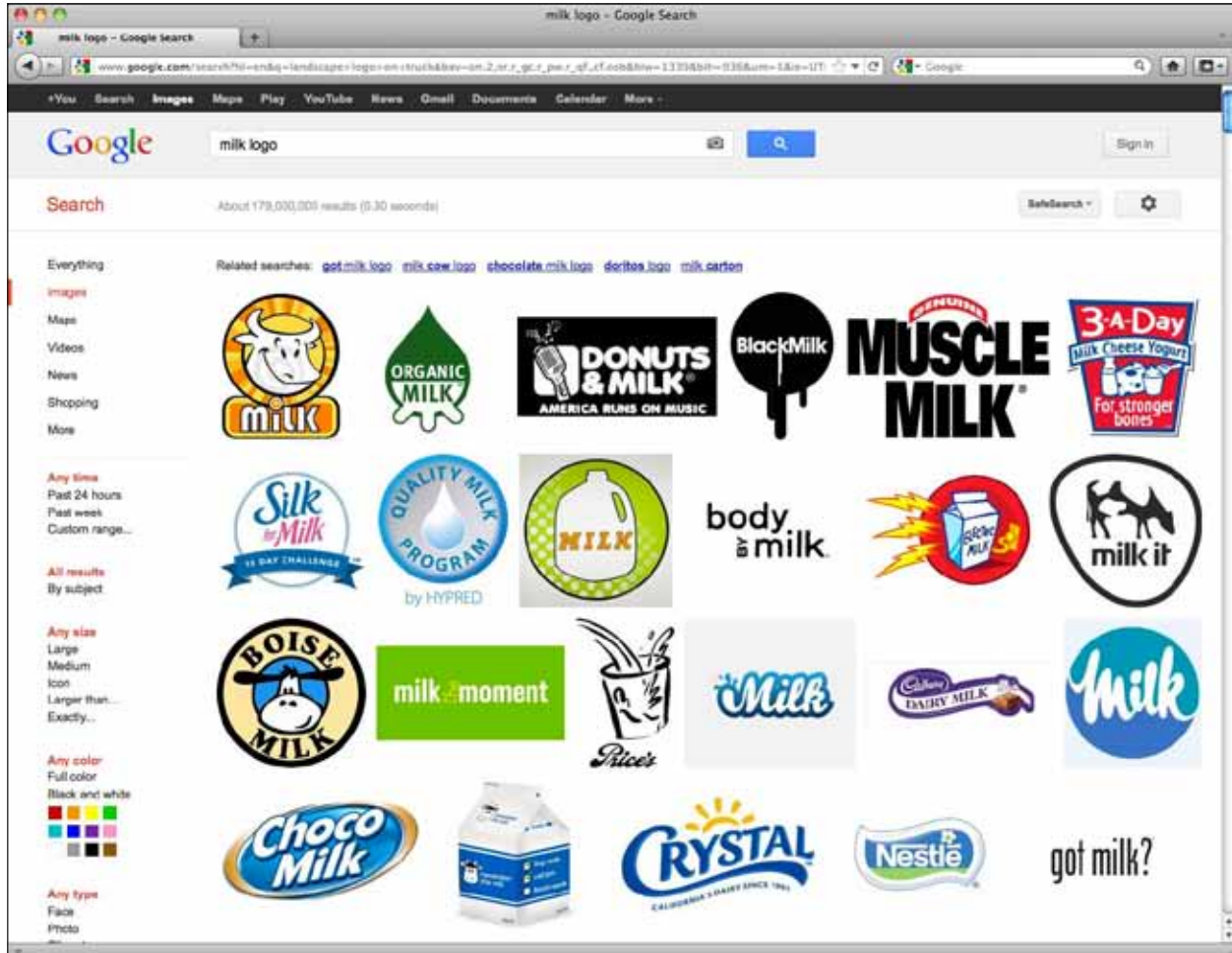
Search for *images* of "Dairy Cows"

Search for "Dairy Company Name"

Search for typefaces

Search for Dairy packaging solutions
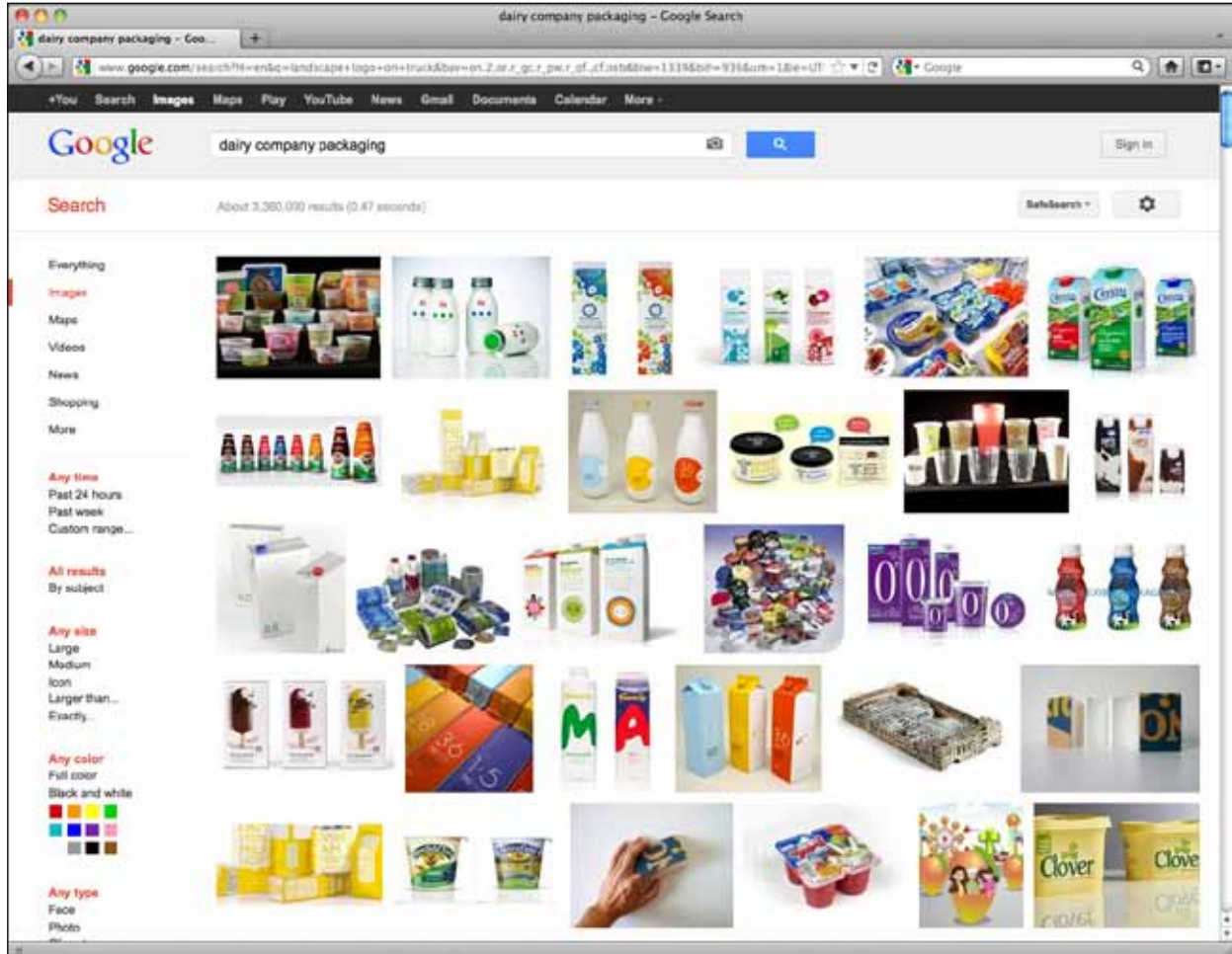
And what is the result?

Derivation   Amalgamation   Plagiarism   Cleverness   Parody

Student confusion about expectations.

Teaching Challenges

Catch 22

We live in a searchable world, that puts a huge amount of valuable information at students' fingertips.

and...

Originality and innovation can be replaced by appropriation and amalgamation.

So, what can we do?

**How can we design curriculum to teach innovation
and originality in this environment of searchable solutions?**

At the Introductory Level

Use projects that have unsearchable results

Introduce limitations to focus exploration

Encourage original creative thinking thru classroom dialog

At the Intermediate and Advanced Level

Encourage exploration merging off-line & on-line sources, experiential research, critical thinking, discussion, etc.

Use projects that require students to become content creators and content editors.

Focus students on the process. Project goals are revealed through student exploration.

Introductory Project Example

Symbol Set : Action

Write narrative about morning experiences

Read and discuss narratives

Choose significant actions and translate to visuals

Refine into a set of communication symbols

Art 206 : Symbols for Graphic Design
University of Wisconsin-Stevens Point
Student Work : Mary Jo Tomich

Intermediate Project Example
Identity Design : Beverage Company

Visit a town
Write, draw, photograph what you find
Prepare a presentation of findings
Imagine a beverage produced in this town
Develop a brand and packaging based on exploration

Art 311 : Branding and Systems
University of Wisconsin-Stevens Point
Student Work : Michael Gehrman

Advanced Project Example
American Song : Museum Identity/Promo

Explore an American song – use a variety of sources
Choose a significant element about the song
Design a presentation to share with peers
Design museum exhibition identity & promotions based on exploration

Art 413 : Advanced Problems in Graphic Design
University of Wisconsin-Stevens Point
Student Work : Holly Brunner

American Song : Strange Fruit

SONG

HOW TO TURN YOUR POEM INTO A

IN 7 STEPS!

1. RHYME
>KNOW YOUR CONTENT BEFOREHAND
>OBSERVE GREAT HITS FOR INSPIRATION
>A POEM THAT RHYMES IS BETTER

2. SECTIONS
>BREAK YOUR SONG UP INTO SECTIONS (INTRO, 2ND & 3RD VERSE IS THE BODY, AND LAST VERSE IS THE CONCLUSION)

3. CREATE A CHORUS
>SONGS HAVE AN ADDED CHORUS (COMES IN AFTER THE 1ST OR 2ND VERSE AND THEN AFTER THE 3RD VERSE --THIS CAN VARY)
>THE THEME OF YOUR POEM SHOULD BE REFLECTED IN THE CHORUS

5. OUT LOUD
>SING YOUR SONG OUT LOUD (OR READ IT), AGAIN CHECK THE FLOW AND RHYTHM OF HOW EVERYTHING SOUNDS

4. REVIEW
>CHECK THE OVERALL FLOW OF YOUR POEM AND HOW IT IS TRANSITIONING OVER INTO SONG FORM

6. FIND A FRIEND
>FIND A FRIEND TO LOOK OVER YOUR NEWLY-CREATED SONG (POSSIBLY SOMEONE WITH A MUSICAL BACKGROUND)

7. MUSIC TIME
>IF YOU (OR SOMEONE YOU KNOW) PLAYS A MUSICAL INSTRAMENT, COMPOSE THE MUSIC TO ACCOMPANY YOUR SONG

Conclusion

Emphasize process (exploration, editing, and content development) leading to design goals and product.

Encourage innovative thinking and originality by carefully designing curriculum to avoid pre-existing, searchable solutions.

Introduce alternative methods of exploration and brainstorming, merging with the benefits of internet search options.

Create projects in which content and product have not been previously combined; leading to new innovative design solutions.

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10.3　Type Carousel

Carol Fillip
Rochester Institute of Technology

Lorrie Frear
Rochester Institute of Technology

Abstract

Design at its core is about the communication of a message to an audience. The decisions made by a designer about content, technique and media can reinforce, delay or obstruct the intended message. Although todays' digital native students are extremely accomplished with software and digital media, they are less so with making things with their hands. We as design educators seek to share alternatives to digital media with our students in order to provide a balance between design and technology, to provide them with analog alternatives to add to their tool boxes, and to help them more fully understand and appreciate historical precedents in design, typography and printing.

This presentation explores an interactive learning experience that was developed to share pre-digital techniques and processes with today's digital native students. The "Jump on the Type Carousel" workshop was created as a fun, interactive environment in which students work cooperatively to experience "pre-digital" techniques such as letterpress and transfer lettering, to test their knowledge of typeface terminology and identification and to try their hands at calligraphy and conceptual lettering using everyday objects. Students moved from terminal to terminal in intervals in order to experience all of the techniques and processes during the workshop. This event provides and open invitation and participants represented a wide range of disciplines; ranging from interior, industrial and graphic design, printing, photography, fine arts and visual media. As an annual event, the terminals change each year to keep the experience fresh for repeat participants and to attract a wider audience of visual communicators. In addition, this project has great potential for broader application for other student populations for team-building exercises to get in touch with their inner type!

11.2 Changing Contexts in Graphic Design Research

Joey Hannaford
The University of
West Georgia

Abstract

The standards of criteria for seeking promotion and tenure in the field of graphic design are often only vaguely articulated by academic institutions. Graphic design faculty find their work misunderstood by fellow fine art faculty who are responsible for peer- assessment and who sit in judgment of design work in terms of promotion and tenure. Institution administrators also, often do not understand the nature of the graphic design discipline and its unique activities within the context of an academic environment. While elements of fine arts and science models may be applicable, no one model is adequate or appropriate for design faculty.

Equivalent to the rapidly broadening definition of Design (with a capital "D") as a problem-solving activity, within the last decade a number of design faculty have pushed their research into contexts other than practice and personal expression and into disciplines that have their roots outside of traditional design and fine arts. This exploratory work seeks to contribute to a broader body of knowledge about the underpinnings of Design by uncovering it as a discipline responsive to all types of problem-solving and creative use of media.

This presentation seeks to explore case studies from a number of different graphic design faculty who have developed creative options for academic research that have also found acceptance within institutional environments. These case studies include creative output that is accepted within a fine arts context, service design or interaction design that provides resources for people to share knowledge, complex societal problem-solving with participatory, collaborative approaches, and the crossing of boundaries between the changing nature of "publishing" on iPads, traditional self- publishing and writing apps for smartphones.

Changing Contexts in Graphic Design Research

JOEY HANNAFORD
Assistant Professor, Graphic Design
University of West Georgia
Carrollton, Georgia
jhannaford@comcast.net

Graphic Design is a relatively young and difficult-to-define discipline in the context of academic research. Part of the reason for this is that the activity that we now term *design* was historically one-in-the-same with typesetting and printing press operation and was learned as a trade apprenticeship. The term *graphic design* was coined by William Addison Dwiggins (a printer by trade) in 1922 but did not come into common usage until the 1960s. Before that, it was known by the decidedly unacademic term of *commercial art*. Even after the practice of design became distinct from the trades of typesetting and printing, designers needed only professional credentials, not academic ones to successfully satisfy their client's business needs. Not only that, there was little necessity or demand for graphic design graduate programs. Consistently a popular major at the undergraduate level for many years, almost non-existent graduate programs in the United States have expanded since the 1980s to over 200, creating growing faculty bodies without clear answers as to what is expected of them for tenure-worthy academic research.

In addition to this, the recent delineations of the practice of graphic design [i.e.: print and web] have expanded exponentially into the far more broad approach of *design thinking*. This popular buzzword expresses seemingly unlimited far-reaching pursuits for the graphic design field such as experience design, interface design, industrial product interaction, and mobile devices. The field is becoming so broad, in fact, a more appropriate term seems to be becoming simply *design*.

In institutions of higher learning research requirements for full-time tenure-track faculty in all disciplines usually consists of a trifecta of teaching, service and professional practice. While teaching and service are fairly straightforward no matter the academic discipline, professional practice is open to interpretation. Tenure-level professional practice for graphic design faculty has been defined for the most part as work commissioned by clients. This presents several problems when viewed through the lens of tenure research. Client commissioned work can be heavily influenced by client input and aesthetic considerations are often compromised, causing the designer to not be in the position of being able (or in some cases, wanting) to fully claim the final outcome. Client commissions can also be extremely complex and involve a team of collaborators, making it difficult to extract the exact role the faculty/designer played in the resulting work. Alternatively, some institutions disqualify work for which a faculty member has received compensation, reasoning that it smacks of conducting a business, not academic research. Client commissions can remain valid methods of professional practice [research], but other possibilities are becoming evident and necessary.

In tenure requirement documents, institutions often don't address the peculiarities of our profession at all and faculty are left to attempt to interpret requirements originally written for other disciplines. How can institutions evaluate research in a field with such restlessly developing technology and far-reaching and changing engagements and how can faculty know what is expected of them?

In my observation, tenure track research for graphic design faculty can fall into several categories:

1.) GENERAL PRACTICE/BUSINESS ORIENTATION/APPLIED PROBLEMS.
This is defined as any work that might ordinarily be accomplished by a practicing professional design studio for corporate, non-profit or pro-bono clients such as brand identity design, publication, environmental or web design, packaging, advertising, multimedia graphics, signage, or consulting.

PROS:
- designer/faculty member is paid
- increases exposure to remain current within the profession
- provides networking opportunities
- possibility of award-winning results which universities prize in a tenure dossier

CONS:
- deadlines can demanding and uncompromising with a fully-committed teaching schedule
- universities often do not understand the designer's role in the final outcome
- work does not necessarily follow any intellectual or aesthetic interest of the designer therefore may not be creatively satisfying

2.) SPECIALIZED PRACTICE. *This work focuses on a narrow range within a business orientation and often incorporates evolving technologies such as animation and movie titling, video, mobile application development, sound and motion, experiential and environmental media.*

PROS:
- designer/faculty member is paid
- can be an opportunity to create or experiment with ground-breaking new techniques for use of media and software
- institutions prize this in a tenure dossier, especially if it garners publicity or grant awards

CONS:
- work can be demanding and time-sensitive, creating tension with teaching schedules

3.) HYBRID OF DESIGN AND FINE ART. *Any type of creative output that is entirely self-directed.*

PROS:
- can create income
- creatively satisfying
- can be shown in exhibitional and invitational shows that compare equally to work in studio art tenure equations
- can create opportunities for artist residencies and workshops that are seen favorably in tenure-review

CONS:

- work is likely to be design-derivative, therefore is sometimes treated with prejudice in fine art/gallery environments
- entry, shipping and hanging fees can be high
- universities may only consider juried or invitational exhibits eligible to meet tenure requirements and may require/consider statistics as to submission/acceptance ratios or credentials of the juror(s)

4.) RESEARCH ORIENTATION. *The newest and most wide-open category that seeks to position design ideas not only in the context of the traditional discipline, practice, and broadening personal expression, but also in the development of a body of knowledge about Design and the examination of relationships to emerging design culture.*

PROS:

- topics are so broad that a large amount of interpretation and exploration into other disciplines is acceptable and encouraged--universities strongly encourage "cross-disciplinary" work.

CONS:

- only a few peer-reviewed national and international academic outlets are available for publication. Some examples are: *Design Observer, Eye, Design Principles and Practices, Design and Culture, Design Studies*
- many efforts are self-published online, therefore questionable in the eyes of academic institutions

Several examples of designers who have developed creative solutions to the problem of academic research are as follows:

LIZ THROOP, Associate Professor, tenured, Georgia State University
www.populational.com

Liz developed a website based on her own beliefs about population growth and the environment. She originally created artwork that made political statements that were intended to be printed out, cut out and used as stencils to create viral graffiti. The site has since evolved into Liz creating her own "graffiti" stencil images and posting them on the website. She encourages these images to be re-posted and considers this re-posting "publishing." See: <About> <around the internet>for examples.)

WENDY SHAPIRO: Lecturer, San Diego State
Wendy Shapiro creates information graphics from statistical information and codifies it into symbol systems. The work is printed large and displayed in gallery settings.

Wendy also creates artists books that are based on her information graphics. These have been included in invitational exhibitions in places such as the San Francisco Center for the Book.

BEN VAN DYKE: Assistant Professor, tenure status unknown, SUNY Buffalo
www.benjaminvandyke.com
Ben Van Dyke creates 3-dimensional type deconstructions that become gallery installations.
He has been awarded a Fulbright and conducts workshops based on the processes he has developed
to create the work.

AMY PAPAELIAS: Assistant Professor, non-tenured, SUNY New Paltz
www.amypapaellas.com
Amy creates website experiments that use typography and sound that challenge user interface
interactions, and the relationship between visual and verbal images. She reports her university is
ambivalent towards this research so far.

In summary I pose several questions for discussion amongst the tenured and tenure-track graphic design community:

- how can we develop evaluation mechanisms that satisfy traditional academic institutions but that also accommodate the broad research approaches of our unique discipline?

- how should tenure-worthy merit be evaluated, determined, defined, and documented in a field that can be considered either a business/applied art, studio art, scholarly discourse or all three?

- how can we expand the conversation about design as a discipline, rather than limit it to "outcome" categories that can confine research activities and funding resources?

11.3 Think Wrong: Ideational Strategies for a Wired World

Louis Baker
Savannah College of Art and Design

Abstract

Project M *(projectmlab.com),* mixes the desire to make the world a better place with non-linear thinking. A short session is known as an "M Blitz," and is an ideal vehicle for ideation. Participants are told not to worry about creating award-winning projects—instead the goal is to have fun, generate fresh ideas and good will.

When presented with a communications problem many designers become too serious—they view creativity as work and end up creating predictable, uninspired solutions. This is reinforced by the standard design process taught in colleges, along with an overreliance on universal research, e.g. the Google search. Perhaps it's also that our instinct for safety and survival compels us to create standard solutions rather than take risks.

Some designers have an uncanny ability to rethink the mundane—no one knows exactly why this is, but M Blitz participants experience one the keys—the ability to disrupt their natural instinct and embrace chaos. By harnessing the concept of 'think wrong,' design solutions become rooted in abstraction. Advisors such as myself facilitate this by encouraging random, playful, connections and narratives. The majority of participants have found this to be a methodology they can use to create inspiring, innovative design solutions.

12.1 DesignRx
Art/Design Collaboration

Elaine Cunfer
Kutztown University

Abstract
Because of the increase of digital technology courses, Communication Design students at my university have few opportunities to take art courses outside of their highly structured 4 year curriculum. Besides digital photography, after freshmen year many will never have an art course with students in other art curriculums. There is often a reciprocal lack of communication and understanding between both students and faculty in the different art areas. I propose to present a paper on a program I developed using the designer s knowledge of industry and technology to help bridge this gap.

Three years ago I began to study fine metals design at my university. My "classmates" were not only enthusiastic that a graphic design professor studying with them but were curious to find out more about what I did. I wanted to find a way that I could increase their understanding of graphic design. I saw attempts at self-designed promotion materials and realized that I had found my opportunity. DesignRx was born. DesignRx is an all day workshop which pairs volunteer Communication Design seniors with senior craft design, art education and fine art "clients" to design their visual identity materials. We just completed our third year and the program has grown each year.

Communication Design volunteers gain work experience collaborating with interesting clients, get to use stunning imagery, learn to work effectively in a limited time frame and develop unique portfolio pieces. The artists attend a morning workshop to learn about personal branding and self-promotion from volunteer faculty. A makeshift photography studio compliments a 3-hour design marathon in the afternoon using our computer and printer equipped classrooms. The artists leave the workshop with a better understanding of the power of graphic design and are more apt to employ a designer in the future.

DesignRx
Art/Design Collaboration

Elaine Cunfer : Kutztown University : Kutztown, Pennsylvania

Tuesday, May 29, 2012

Prelude

- In the the late '70s until the early '80s, in a very loose Communication Design curriculum, I tried to ignore as many graphic and advertising courses as possible during my college experience. I took the required courses in design and fleshed out my schedule with every craft and fine art course I could fit. I stayed in design because my Dad was convinced it was the only way I would become gainfully employed.

- Early on in my professional career as an illustrator, I was introduced to a **Mac Lisa** at a design conference. I rolled my eyes when I was told this was the future of graphic design.

- After 25 years with both success and joy as an illustrator, designer, and design educator I was feeling like this . . .

Tuesday, May 29, 2012

Tuesday, May 29, 2012

So for fun and basic stress relief, I started taking fine art courses in fine metal and jewelry design!

In these craft courses,

- I met a lot of new students with an aversion to computers . . .

- . . . and a fear of "type A techie" Communication Designers.

- I'm told that graphic designers can be very scary.

Tuesday, May 29, 2012

JEREMY WORKING IN THE FINE METALS STUDIO

Tuesday, May 29, 2012

As I got to know my "classmates,"

- They were not only enthusiastic in their support of my creative efforts, but were curious to find out more about me, the designer.

- I would ask my classmates for assistance and advice on matters such as "sawing and soldering". They started to ask for my assistance with computer tasks.

- I started to integrate typography into my fine metals work and they urged me on.

- Gradually, my classmates started to share their attempts at self-designed promotion materials and I realized that I had found my opportunity for a great collaboration.

Tuesday, May 29, 2012

TYPOGRAPHIC BROOCHES / E. CUNFER

Tuesday, May 29, 2012

Unlike my own University experience,

- The increase of digital technology courses into our curriculum, has left Communication Design students with few opportunities to take art courses outside of their highly structured 4 year curriculum.

- Besides digital photography, after freshmen year, many Communication Design students will never have a traditional art course with students in other art curriculums.

- A handful of Communication Design students elect to stay an extra semester or year just to be able to take a greater variety of art courses.

Tuesday, May 29, 2012

COMMUNICATION DESIGN COMPUTER LAB DURING DESIGNRX

Tuesday, May 29, 2012

Craft design, fine art and art education students

- Are introduced to technology in their courses.

- They often do not have the time or inclination to immerse themselves in technology to develop a level of comfort.

- Due to curriculum structure very few have the opportunity to be introduced to fundamentals of layout and typography.

- Marketing and self-promotion are usually briefly addressed in senior level courses within individual curriculums by non-designers.

Tuesday, May 29, 2012

DAN WORKING IN THE WOOD STUDIO

Tuesday, May 29, 2012

The situation

- There is often a reciprocal lack of communication and understanding between both students and faculty in the different visual art areas.

- This perpetuates a tendency to isolate ourselves to our designated departmental cliques and reinforces inaccurate perceptions.

- We've become territorial and miss opportunities to connect creatively.

Tuesday, May 29, 2012

I wanted to find a way

- that I could start to break down some of these misconceptions,

- to break the stereotype of the art-for-sale Communication Designer,

- to increase my classmate's understanding of the power of graphic design,

- to show my appreciation to my fine art and craft design classmates for their acceptance and encouragement of my endeavors,

- and "hopefully" make us seem a little less "scary."

Tuesday, May 29, 2012

TRY A DOSE OF
design/RX # 2012

Tuesday, May 29, 2012

POSTERS FOR DESIGNRX

Tuesday, May 29, 2012

What is DesignRx?

- DesignRx is an all day intensive workshop for craft design, art education and fine art seniors.

- The morning is devoted to a crash course on visual branding.

- A working lunch and 4 hour afternoon design session pairs volunteer Communication Design students with craft design, art education and fine art "clients" to design their visual identity materials.

- This spring we completed our third year and the program has grown each year. This year we had approximately 18 student clients, and 25 Communication Design students and 4 faculty participate.

Tuesday, May 29, 2012

DESIGNRX PARTNERS: COLE AND MATT

Tuesday, May 29, 2012

Why it works

- A strong foundation in visual communication, coupled with the the comfort level of using technology and the wealth of digital hardware within our department, gives us the means to accomplish a great deal of work in a very short amount of time.

- Student Communication Design volunteers gain professional experience working for unique clients. They are excited to use original and stunning imagery, learn to work effectively in a limited time frame, develop unique portfolio pieces but most importantly realize the opportunities and relationships that collaboration can foster.

- Student "clients" gain a new perspective on the power and scope that technology will have in their successful marketing as artists, craft designers and art educators. They discover the importance of consistent self-branding, the avenues for its dispersal and they realize that working with a graphic designer need not be intimidating.

Tuesday, May 29, 2012

COMMUNICATION DESIGN ELIXIR
TAKE 1 WORKSHOP YOUR SENIOR YEAR

CRAFT DESIGN, ART EDUCATION AND FINE ART SENIORS
YOUR CD DOCTORS CAN CURE YOUR VISUAL BRANDING NEEDS
AT **design/RX** SATURDAY, FEBRUARY 18TH, IN 213 SHARADIN.

A Get in Good Shape Morning

Everyone welcome! No appointments required but registration necessary.

9:30 – 10:15
Creating Healthy Design:
Why Your Image Matters and More...
— Professor Summer Doll

10:30 – 11:15
Exercising Your Design Muscle:
Get Moving on your Letterhead System
— Professor Vicki Meloney

11:30 – 12:15
The Secret Self-Promotion Potion:
The Portfolio and Web Antidote to Lackluster Feedback
— Professor Denise Bosler

Working Lunch with Patient 12:15 – 1:15

Discuss Design Health Strategy Over Pizza.

An Afternoon of Design Healing 1:15 – 4:15

Sign Up For 3-Hour Design Session
With A Personal Graphic Design Health Coach.
Contact Professor Cunfer to schedule an appointment.
A consult with your coach before your Saturday
session is required.

Therapeutic Project Imaging (Photography)

Afternoon Participants Only!
Schedule a photography session during the morning
or afternoon for up to 3 reasonably sized pieces
of work. Contact bosler@kutztown.edu to schedule
an appointment.
— Professor Denise Bosler / Professor Elaine Cunfer

| Afternoon Seat Qty: 20 | Appointments required ASAP! | Consult necessary. |

Tuesday, May 29, 2012

A "Get in Good Shape" Morning

- The focus of the morning session is a series of informal mini lectures:

  - Creating Healthy Design: Why Your Image Matters and More

  - Exercising Your Design Muscle: Get Moving On Your Letterhead System.

  - The Secret Self-Promotion Potion: The Portfolio and Web Antidote to Lackluster Feedback

Tuesday, May 29, 2012

A "GET IN GOOD SHAPE" MORNING

Tuesday, May 29, 2012

A "GET IN GOOD SHAPE" MORNING

Tuesday, May 29, 2012

An Afternoon of "Design Healing"

- Students are assigned a partner and asked to meet and show each other work about a week before the event.

- This allows me to resolve any issues that arise and the designers come into the day knowledgeable of their client and with ideas on how to proceed.

- Everyone meets around noon for a working lunch. (About 20 pizzas and bottled water.)

- The next four hours is an intense afternoon of concepting, creating and designing the promotional materials.

- We provide an on-site photography service so quality imagery can be shot on the spot.

Tuesday, May 29, 2012

ON-SITE PHOTOGRAPHY

Joe and Ashley

Tuesday, May 29, 2012

JOE WORKING IN THE WEAVING STUDIO

Tuesday, May 29, 2012
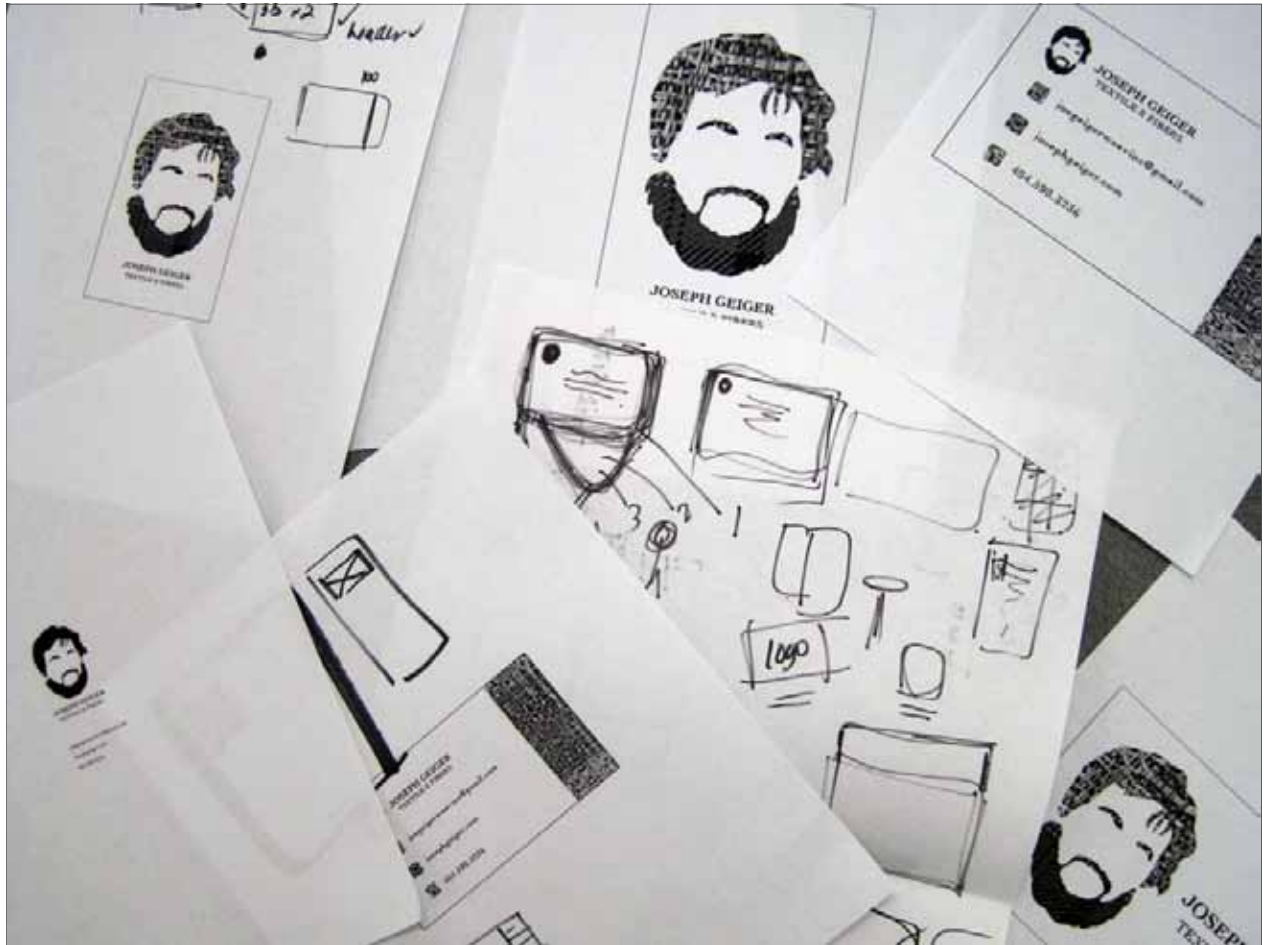
Tuesday, May 29, 2012

Tuesday, May 29, 2012
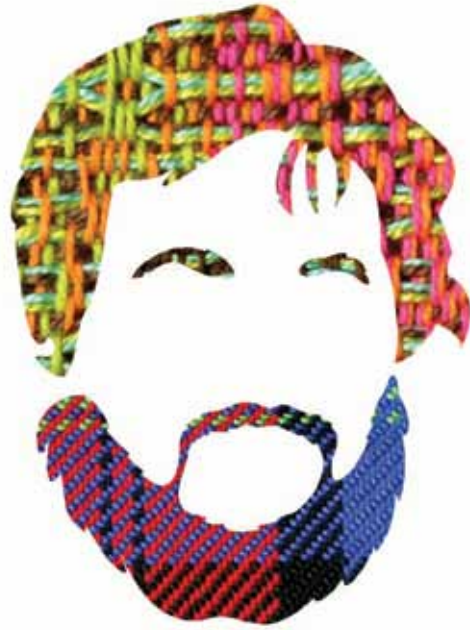
Tuesday, May 29, 2012

JOSEPH GEIGER
TEXTILE & FIBERS

Tuesday, May 29, 2012

JOSEPH GEIGER
TEXTILE & FIBERS

joegeigerweavins@gmail.com

josephgeiger.com

484.598.3236

BUSINESS CARD

Andy and Roman

Tuesday, May 29, 2012

Tuesday, May 29, 2012

ANDY'S TABLE SERVES AS INSPIRATION

Tuesday, May 29, 2012
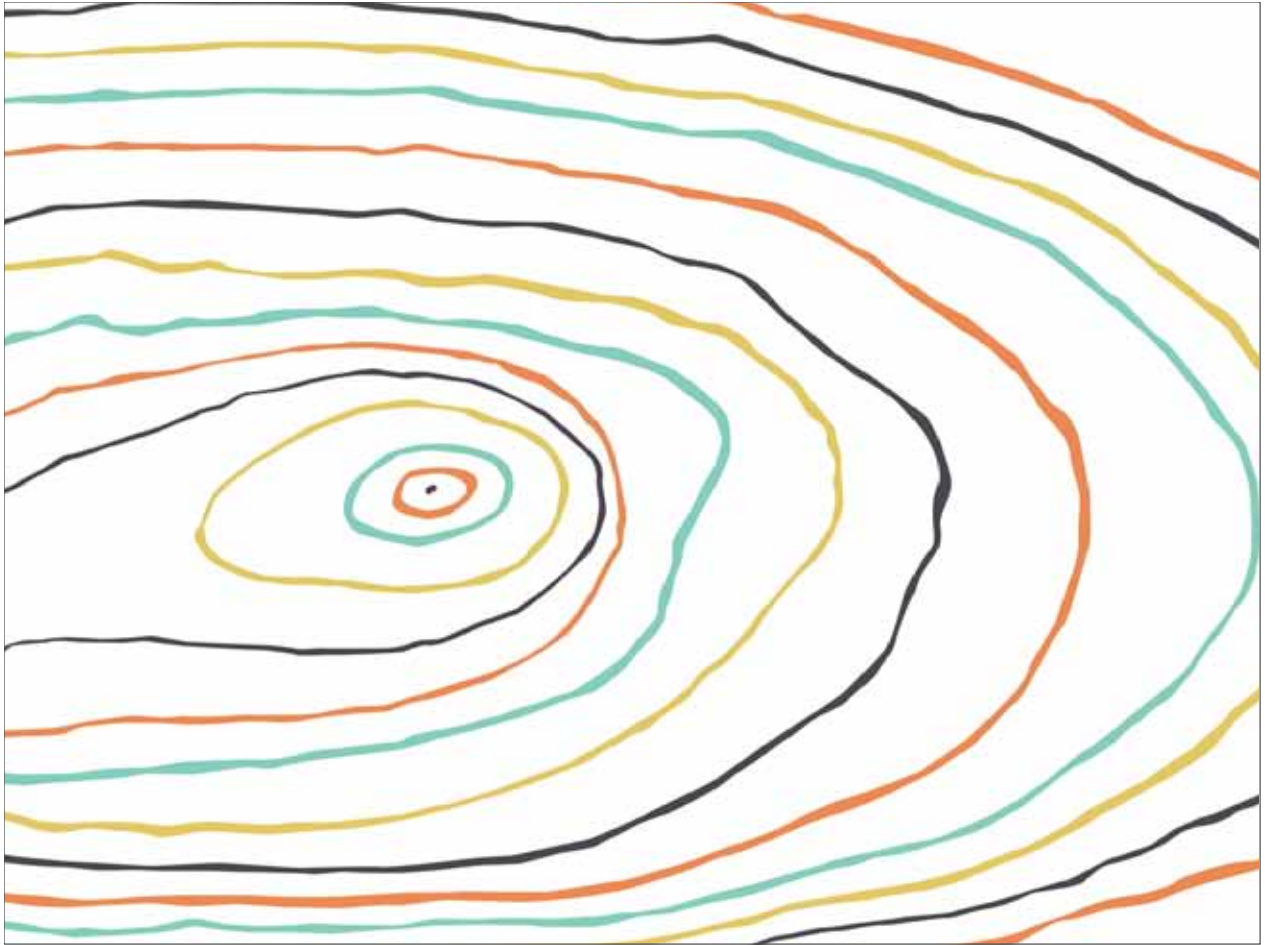
Tuesday, May 29, 2012

BUSINESS CARD

Tuesday, May 29, 2012

ANDY VASQUEZ furniture

andyvasquezfurniture.com
610-308-3738
1550 Fourth Street
Bethlehem, PA 18020

Tuesday, May 29, 2012

Other examples

Tuesday, May 29, 2012

PRINT BY DAN GREEN

Tuesday, May 29, 2012
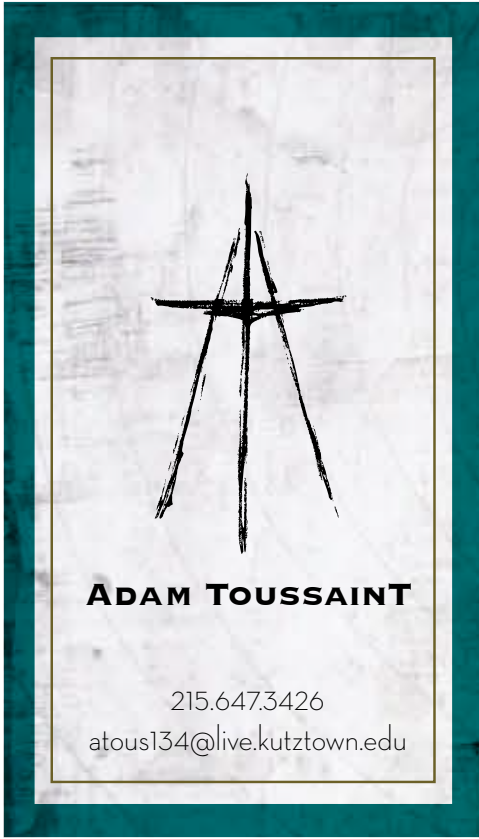
DAN GREEN

PRINTMAKER

ART EDUCATOR

LOGO

Adam ToussainT

215.647.3426
atous134@live.kutztown.edu

Tuesday, May 29, 2012

daniel antosh

66 woodland way
clarks summit PA 18411

570.954.2054

danantosh@gmail.com

danielantosh.com

daniel antosh
fine metal & enamel jewelry

Tuesday, May 29, 2012

SAMPLE SHEET TEMPLATE & POSTCARD

Tuesday, May 29, 2012

Amanda K. Deibert

5026 Olwy Turnpike Road
Reading, PA 19606

610.413.2362
a.k.deibert@gmail.com
amanda**kate**deibert.com

POSTCARD & BUSINESS CARD

Tuesday, May 29, 2012

Tuesday, May 29, 2012

LOGO

LETTERHEAD

Tuesday, May 29, 2012

ADDRESS
3918 ridgeland blvd.
mechanicsburg, pa 17050

EMAIL
karalynndurgin@gmail

WE
talked about

ADDRESS
3918 ridgeland blvd.
mechanicsburg, pa 17050

EMAIL
karalynndurgin@gmail

WE
talked about

BUSINESS CARD

Tuesday, May 29, 2012

SHAWN
DELA ROSA
Artist

EMAIL SDELAROSA.ART@GMAIL.COM
PHONE 267.205.5761

DE
LA
RO
SA

BUSINESS CARD

Tuesday, May 29, 2012

LETTERHEAD

Tuesday, May 29, 2012

SHAWN
DELA ROSA
Artist

2193 EAST VILLAGE RD
HOLLAND, PA 18966

SDELAROSA.ART@GMAIL.COM
267.206.5761

DE
LA
RO
SA

DE
LA
RO
SA

POSTCARDS

Tuesday, May 29, 2012

KRIS

Krzysztof R.Schmalz   Artist Educator   415 W Durham Street, Philadelphia, PA 19119   215.971.6372   krschmalze@gmail.com

LOGO

Tuesday, May 29, 2012

KRIS

Kristofer R Schmolze
Artist Educator
415 W Durham Street
Philadeliphia, PA 19119
krschmolze@gmail.com
215.971.6372

BUSINESS CARD

Tuesday, May 29, 2012

KRIS

EDUCATION

2014	M.Ed. Program: Art Education 3.3 GPA, Kutztown University of Pennsylvania, PA
2012	Teaching Certification Program: Art Education 3.3 GPA, Kutztown University of Pennsylvania, PA
2000	B.F.A. Major: Sculpture Kansas City Art Institute, MO

TEACHING EXPERIENCE

3-2012 5-2012	Great School of Mystery, Somewhere, PA Student Teacher Implemented curriculum-based lessons in all subjects Pre-K through 12th grade including learning support classes
1-2012 3-2012	Gynedd Square Elementary, Lansdale, PA Student Teacher Implemented curriculum-based lessons in all subjects Pre-K through 12th grade including learning support classes
10-2009 12-2011	Allentown School District, Allentown, PA Substitute Teacher Implemented curriculum-based lessons in all subjects Pre-K through 12th grade including learning support classes
6-2007 8-2007	Congreso de Latinos Unidos, Philadelphia, PA Art Instructor Developed and implemented a mural program for urban at-risk teenagers working collaboratively to create a mural while earning high school credit
5-2006 6-2007	Mural Arts, Philadelphia, PA Art Instructor Coordinated a series of large-scale murals for adjudicated youth Implemented collaborative lessons, which helped students developed interpersonal skills, cooperative learning habits, and productive work skills
7-2006 8-2006	Cheltenham Art Center, Cheltenham, PA Drawing Instructor Still life drawing instruction for middle & high school students

RESUME

Tuesday, May 29, 2012

Accolades from the participants

- "DesignRx was a screaming success!!! The initial review and renew about the importance of design during the morning portion was useful in developing an idea and direction for branding myself in the art education market place. It's about standing out, not sticking out!" — Kristofer Schmolze

- "The Design Rx day was 100% helpful. I wish I had a designer on hand all the time." — Kara Durgin

- "I feel more confident knowing that I will be able to present my work and accomplishments to prospective employers in a way that is both professional and unique to my identity." — Amanda Deibert

- It was a great experience for a CD student as myself to learn to work with clients closely. This was a helpful way to learn problem solving in the world of design. — Krista Martini

Tuesday, May 29, 2012

Kudos to the volunteers and participants

On behalf of all the participating faculty, I just wanted to send everyone
a great big THANK YOU for volunteering for and participating in **DesignRx**.
We were really pleased it turned out to be such a productive day and we
enjoyed the positive energy produced by your design collaborations.
The art work we got to see being used for the projects and the design
produced on site was impressive. It was exciting to work with you all
and it was a really fun day! As faculty we are really fortunate to have such
great students in all the art disciplines! Hopefully we can continue this
collaboration in the future. — Professor Cunfer

Tuesday, May 29, 2012

In conclusion

- Reconnecting with the power of my hands as a creative force helped me reconnect with the power of technology as a graphic designer and an educator.

- Technology can empower opportunity.

- We can use our technological skills to help teach others, bridge gaps, create relationships and build understanding.

- But technology's real power is when it merges with creativity to create and inspire.

Tuesday, May 29, 2012

Tuesday, May 29, 2012

12.3 Visualizing Health Humanities with Design Students

Bonnie Sadler Takach
University of Alberta

Abstract

In this presentation, I will share how sixty-four visual communication design students in five studio courses collaborated across three course levels to visualize the interdisciplinary connections of the emerging field of health humanities, and to design concepts for a related exhibition held in May 2012. Second-year students designed diverse visual systems to represent key aspects of the health humanities field, which connects medicine, the arts, humanities and the social sciences, and is concerned with the human aspects of medicine and healthcare. Third-year students designed diagrams and environments to map the diversity and interconnectedness of the disciplines related to health humanities. Fourth-year students designed promotional media for the exhibition and concepts for the exhibition space. The work of each class informed the others in an iterative process that was activated by students physically posting concepts and comments on the walls of a hands-on collaborative space. Their final work, created using a variety of media, will be featured in an interactive, online gallery linked to the exhibition. Taking a discovery-based learning approach, students were challenged to think critically about design and its role in promoting the health and well-being of society.

UNIVERSITY OF ALBERTA
DEPARTMENT OF ART & DESIGN

Visualizing Health Humanities
with Design Students

Bonnie Sadler Takach, Visual Communication Design
*May 21–22, 2012, UCDA Design Education Summit **Catch 22***

*My speaking notes (right) accompanied the above slides, and were drawn from my essay, "Visualizing Health Humanities with Design Students" in the **InSight: Visualizing Health Humanities** exhibition publication (Bonnie Sadler Takach, Pamela Brett-MacLean & Aidan Rowe, editors, 2012).*

Student design work: Davis Levine; Matthew Satchwill; Jarryd Csuti, Janet Ferguson-Roberts & Albert Paschen; Cindy Chen, Daniel Gauthier, Jackson Mcconnell & Yunwen Zhu; Xuanzi Han, Crystal Hofer & Kiersten Marchand

To begin, I would like to thank UCDA Catch 22 organizers for this opportunity to share this project, in which design and technology are intertwined.

InSight: Visualizing Health Humanities provides a rich opportunity to explore interdisciplinary connections. But it also raises vital issues around design education, and even around the role of visual communication design in translating knowledge, to help improve how we care for ourselves, both individually and collectively. This reflection charts the evolution of the **InSight** exhibition project in these broader contexts.

UNIVERSITY OF ALBERTA
DEPARTMENT OF ART & DESIGN

discuss

visualizing health humanities project

learning opportunities

> Master of Arts (MA) in health humanities?

> certificate program?

> cross-disciplinary projects + courses?

emerging field

> how to visualize interdisciplinary connections

One of my areas of interest is the design and evaluation of health communication and information, and the translation of knowledge in visual ways for public use.

This project was my response to an invitation from our Faculty of Arts to participate in discussions about a possible Master of Arts program and, later, an undergraduate certificate in medical/health humanities. This connected me to the Arts & Humanities in Health & Medicine program in the Faculty of Medicine & Dentistry and other colleagues in health humanities. I wondered what types of interdisciplinary work were being done in this emerging field at the University of Alberta (Canada) and how that work could be visualized for communities both on and off campus.

UNIVERSITY OF ALBERTA
DEPARTMENT OF ART & DESIGN

imagine

exhibition

> to help visualize health humanities
> Fine Arts Building (FAB) Gallery
> teaching gallery of Art + Design (Arts)
> use exhibition to explore related work at (or connected to) UAlberta
> how to tackle?
> involve students!

imagine visuals

Lorna Campbell

InSight: Visualizing Health Humanities EXHIBITION OUTLINE DRAFT 2

Health humanities is an emerging interdisciplinary field that intersects medicine, the arts, humanities and the social sciences; encompassing art, health design and communications, visual culture, drama, music, literature, narrative medicine, art therapy, health promotion, history of medicine, medical anthropology, ethics, environment and health, and much more.

We seek to **evoke and expose the wide array of practice, research and teaching in health human ities at or connected to the University of Alberta**, through a dynamic and thought-provoking exhibit in a variety of media.

Through this exhibition, we will **explore how we can visually translate and communicate knowledge from significant, diverse health-related work in ways that are innovative, engaging and accessible** to communities both on and off campus.

UNIVERSITY OF ALBERTA

Activities related to design and promotion of the exhibit, as well as visual exploration of the themes, will be programmed into under/graduate design courses in 2011–12, possibly in collaboration with other courses/programs.

PROPOSED PROJECTS FOR DESIGN COURSES
Fall term
DES 395: Visual systems of representation
DES 493: Visually mapping health humanities
DES 593: Exhibition concepts / promo materials

Winter term
DES 396: Visual analysis of health messages
DES 594: Partnering to help design entries

TBD
Exploring visual knowledge translation
Design of exhibit
Design of catalogue / booklet

Fine Arts Building Gallery [second floor], U of A
May 15 to June 9, 2012
Opening reception (tentative) **May 17, 7 to 10 pm**

Additional sites TBD, March to June, 2012

IDEAS
• Entry visualizations could include range of conceptualizations, expressions, representations, documentations, etc, in different media

• Could also run parallel to a lecture series or panel discussion [involve students].

• Consider related material such as catalogue / booklet; website; blog, etc.

• Exhibition design options: windows / frames / interactive, remote locations, etc

• Possible outcomes can include a visual map of U of A health humanities disciplines to aid the development of curriculum for students, profes sionals and public as well as interdisciplinary connections to support future collaborations

DRAFT: BONNIE SADLER TAKACH, ART & DESIGN, OCTOBER 11, 2011 <sadler.takach@ualberta.ca>

SEP 2011	OCT	NOV	DEC	JAN 2012	FEB	MAR	APR	MAY	JUN +
Confirm exhibition committee + collaborators Finalize details, including scope, time-line + budget Begin class-related projects		Call for participation Plan catalogue / booklet with essays		Review proposals Notify participants Partner with design students Write + design catalogue / booklet		Preparation of entries Installation		Opening Lectures / Discussions? *Consider Exhibition II*	

Viewing the planning process for the **InSight** exhibition as a design problem, I started with the same framework that we share with our students in the Visual Communication Design program. And I turned to our greatest resource—our students —setting class projects to involve them in conceptualizing diverse facets of health humanities and the exhibition that would connect them.

UNIVERSITY OF ALBERTA
DEPARTMENT OF ART & DESIGN

contextualize

design studies

> industrial design +
  visual communication
  design
> social responsibility
> with community
  partners + clients
> collaborative
> integrate research
  into teaching
> course-based ethics
  approval (to eval-
  uate effectiveness)

re:searching

MÉTIS SETTLEMENTS
CENSUS 2012
IMPROVING OUR STATISTICS
IMPROVING OUR BENEFITS
VISIT WWW.MSGC.CA/2012CENSUS

*Student design work: Clinton Carlson
(top + bottom left); photo of spring
session class (top right); Ashley Truong
(bottom right)*

As we know, design is a multifaceted field, drawing on many areas to help people access information, products, environments, services and experiences to improve their lives.

Our Design Studies program embraces critical and creative thinking, research, collaboration and community engagement, which we believe empower socially responsible citizens. An essential part of that engagement, relates to communications around our health and well-being.

Visual communication design is a powerful means of exploring the emerging field of health humanities and communicating its diverse and plentiful connections and possibilities to the public.

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visualize

interdisciplinary activities

> visual language, conventions, genres, + discourse of disciplines in health humanities

> visual translation of knowledge

> connections

> community building

> education + training

skills, systems-based curriculum, research, film, poverty, access to the body, performance art, video based/performance art approach, collage, health education, serious intergenerational theatre, theatre improvisation, GeriActors, short medicine; identity, dehumanize, disconnect, human, photography, dementia and end-of-life care, c

antibiotic abuse
Jorge Frascara & Guillermina Noël

BUREAUCRAZY
Navigating Health and Social Services in Alberta

A Guide for Discussion
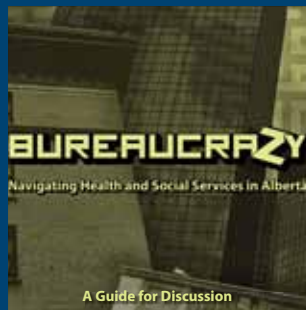
*Images from **InSight** exhibition entries:*
key words from entries (top left);
Jorge Frascara & Guille Noël (top right);
submission from Maria Mayan,
designer unknown (bottom left);
Ben King (bottom right)

Health humanities connects medicine, health sciences, arts, humanities, and social sciences, and is concerned with the human needs of health and the practice of medicine.

To visualize health humanities, students considered holistic questions like what an ideal society would be, what health models should be followed, and what kind of training would be required to equip medical and healthcare professionals to help people.

Students drew on a wide range of interdisciplinary research and visually analyzed existing forms, genres and visual discourse from diverse fields to develop visual language, depictions and expressions to represent and conceptualize disciplinary connections across health humanities. These explorations would serve two primary goals: to help showcase the wide array of practice, research and teaching in health humanities at the UAlberta, and to help document explorations in visually communicating health-related knowledge in innovative, engaging and accessible ways— ways that would allow viewers to make their own connections.

UNIVERSITY OF ALBERTA
DEPARTMENT OF ART & DESIGN

explore

cross-level learning

> sixty-four students in five junior to senior undergraduate design courses
> graduate TA
> collaborative space
> iterative, interactive process

DES 395 A1 (2nd year)
visual systems of representation + depiction

DES 493 A1+X1 (3rd year)
mapping emerging field, with possible connections

DES 593 A1+X1 (4th year)

design of exhibition space + related materials

Sixty-four visual communication design students in five studio courses (two of which I taught) thus worked together across three course levels to visually represent the interdisciplinary connections of the emerging field of health humanities, and to design visual concepts for this exhibition.

Their investigations included took them to case studies, interviews, articles and visual examples relating to health/medical humanities, health information design, health communications, knowledge translation, information and data visualization, informatics, visual research and discourse analysis, visual rhetoric, semiotics, visual literacy, visual communication, visual culture, visual identity design, public graphics and more.

collaborate

brainstorming + research

> what is health humanities?
> preceived role(s) of health humanities

sharing concepts + reflections

> collaborative spaces + shared critiques present + 'virtual'
> individuals + groups

Images from class work

We often do collaborative projects across classes, institutions, and nations using various media and technologies for design, communcation and collaboration.

In this case, low-tech and high-tech means were used for design and collaboration.

Using a discovery-based learning approach that emphasizes collaborative work, community engagement, critical evaluation and personal reflection, I encouraged students to share their research, brainstorm together and respond to each other's concepts. Individual instructors determined the final requirements for the project in each class, but all students had to document their solutions (whatever their chosen format or media) in two-dimensional form along with a written rationale and a learning reflection. Resources, technology tutorials and working models were offered responsively as needed. The work of each class informed the others in an iterative process that was activated by students physically posting visualized concepts and comments on the walls of a shared, hands-on collaborative space.

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collaborate

DES 395 A1

> 2nd year course in visual communication design

> visual systems of representation + depiction

Student design work: Tiffany Schlichter (top left); Melody Du (top right); Ashley Truong (bottom left); Linnea Lapp (bottom right)

Second-year students designed concepts for visual systems in the form of charts, matrices or diagrams, to conceptualize, depict, express and represent key aspects of the health humanities field.

Disciplines

Arts
History
Literature
Philosophy
Dance
Theology
Law
Music
Anthropology
Sociology
Languages
Drama

The list of disciplines are ones that are presently engaged in the Health Humanities field, isolated from one another they are just a list, but it becomes far more interesting to look at the complex field when these disciplines' perspectives are combined in a unique and fascinating interdisciplinary way creating an all together new outlook. I looked to create a visual system that would represent each individual discipline in a creative and visual appealing way and which would provide the opportunity to see the complexity of the interdisiplinary nature of the Health Humanities. The system is a guideline of visual images and representations that can be used in many ways to visually map the Health Humanities field.

InSight: Visualizing Health Humanities

a visual system

TIFFANY SCHLICHTER

Visual Language

Detailed black and white line drawings.

HUMAN ANATOMY REPRESENTATIONS AND IMAGES   IMAGES INSPIRED BY THE HUMANITIES AND THE ARTS

Orange / Light blue / Red / Purple / Yellow

C=0 M=35 Y=85 K=0	C=56 M=44 Y=0 K=0	C=15 M=100 Y=90 K=10	C=75 M=100 Y=0 K=0	C=0 M=10 Y=95 K=0

InSight: Visualizing Health Humanities

a visual system

TIFFANY SCHLICHTER

Visual Possibilities

A possible representation of the discipline of Theology.

A possible representation of the discipline of Music, showing what can be done with colour.

A possible representation of showing the interdisciplinary relationships present in Health Humanities, using the Theology and Music disciplines.

InSight: Visualizing Health Humanities

a visual system

TIFFANY SCHLICHTER

collaborate

DES 493 A1+X1

> 3rd year course in visual communication design
> mapping emerging field, with possible connections
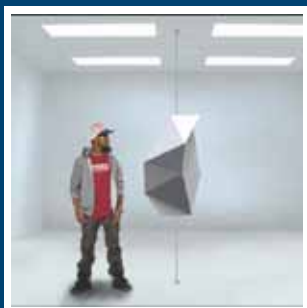
Student design work: Kayla Callfas, Jackson McConnell, Justin Pritchard, Katrina Regino (top left); Xuanzi Han, Crystal Hofer & Kiersten Marchand (top right); Jarryd Csuti, Janet Ferguson-Roberts & Albert Paschen (bottom left); Cindy Chen, Daniel Gauthier, Jackson Mcconnell & Yunwen Zhu (bottom right)

Third-year students designed diagrams and environments in map-like formats to visually communicate the diversity and interconnectedness of the disciplines related to health humanities.

HEALTH HUMANITIES MONSTERS

"Health Humanities Monsters" is an interactive flash game that educates the user about the emerging field of Health Humanities. Breaking Health Humanities into three common fields of study – Sciences, Social Sciences, and Humanities (and the many areas within each of these fields) – the user is able not only to view existing "Monsters" but also able to create their own "Monster" to add to the games "View Monsters" database. These "Monsters" can represent anything within Health Humanities – from research studies to therapeutic practices – encouraging the user to engage with the concepts of the field in a fun and creative way.

Example of "View Monsters" Screen. The arrows are used to scroll through the game's database of "Monsters". The user's chosen "Monster" is circled in green while the "Monster's" image and information appears to the left of the screen.

Example of "Create Your Own" Screen. The arrows are used to scroll through each category of "Monster" parts - the head (for sciences), the torso (for social sciences), and the legs (for humanities). The user is then encouraged to come up with an area of study that combines these three areas in the "Name Your Monster" field to the right of the screen. It is then added to the game's "Monster" database by clicking submit.

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collaborate

DES 593 A1+X1

> 4th year course in visual communication design

> design of exhibition space + related materials
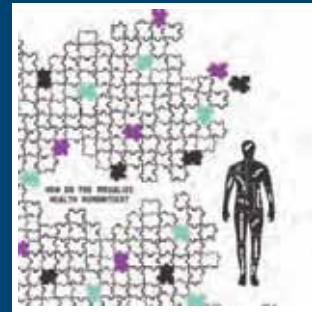
Student design work: Matt Satchwill (top left); Iwona Fafarek (top right); Davis Levine (bottom left); Bryan Kulba (bottom right)

Fourth-year students designed a visual identity and promotional media for the exhibition, and concepts for the exhibition space.

Student design work:

Matt Satchwill
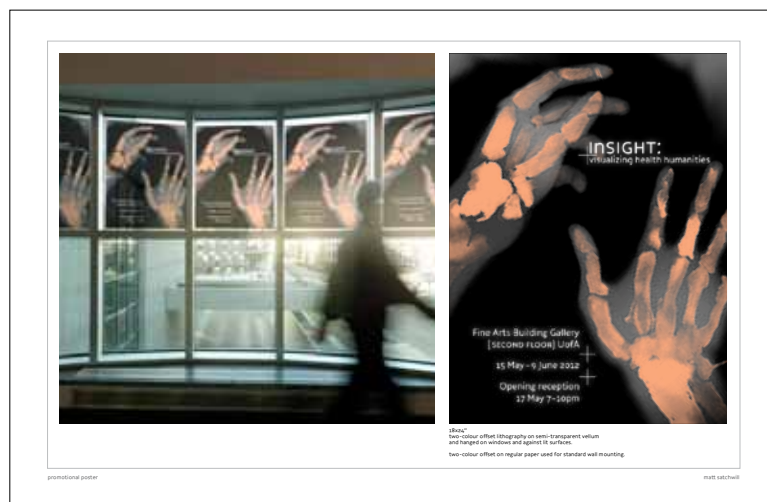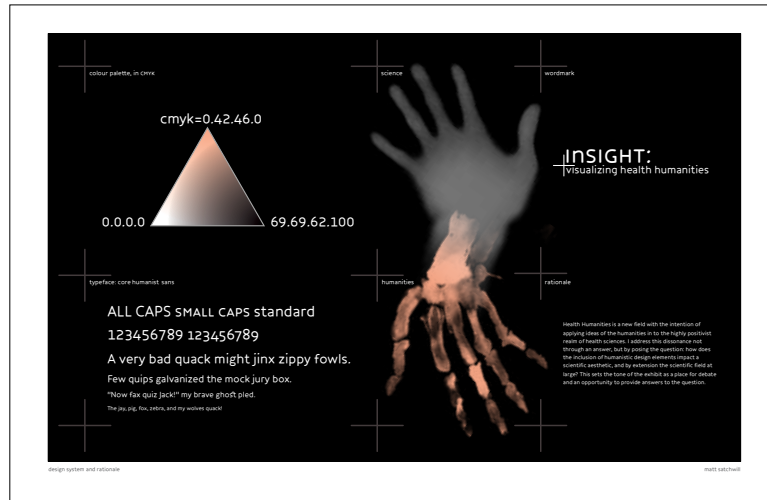
INSIGHT: VISUALIZING HEALTH HUMANITIES — RATIONALE, COLOURS AND CHALK MOTIF — BRYAN KULBA

InSight's primary challenge is relating a field which spans a breadth of disciplines to the visitors. With exhibit strategies that prompt dialog from the visitors and curators, we can collaboratively create a defining representation and understanding of Health Humanities. Extension of the motifs and dialog strategies into the identity, branding, and promotion will reinforce the concepts and approach of the exhibit.

COLOURS

CMYK: 75, 0, 15, 0
CMYK: 35, 0, 100, 0
CMYK: 55, 75, 32, 0
CMYK: 0, 43, 1005, 0
CMYK: 13, 11, 11, 0
CMYK: 90, 75, 53, 67

THE CHALK MOTIF

INSIGHT: VISUALIZING HEALTH HUMANITIES — HEALTH SCIENCES LRT PROMOTION — BRYAN KULBA

Advertisements

LRT installation in situ

Example illustration style

CHALK WORD ILLUSTRATION

Students' involvement with the **InSight** project did not end there.

Bryan Kulba's initial work was chosen from among the concepts designed by senior students.

Student design work:

Bryan Kulba

As my special projects student, Bryan Kulba worked on design-ing promotional and informational media for the exhibition, as well as the website and an interactive application to showcase the work of students and exhibitors.

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apply

design

> call for proposals, publication, promotional media, exhibition design

> team of design students + faculty + recent graduates (undergraduate + graduate)

Bryan Kulba developed further the visual identity system and its application in collaboration with me, my colleague, Aidan Rowe (who led the design of the exhibition), and a graduate of our program, Sergio Serrano (who also designed the publication).

My co-curators Pamela Brett-MacLean (Arts & Humanities in Health & Medicine program), Aidan Rowe (Art & Design) and I accepted 32 works across over 20 UAlberta faculties and units. These works shared a space that both occupied and moved beyond the gallery and include videos, projections, drama, dance, a yoga performance, paintings, drawings, prints, books, posters, installations, sculpture, artifacts, models, a curio cabinet and an interactive game.

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DEPARTMENT OF ART & DESIGN

extend

design +

> website including interactive gallery

> design students help exhibitors visualize their work

> student work cubes + cube posters

insight.healthhumanities.ca
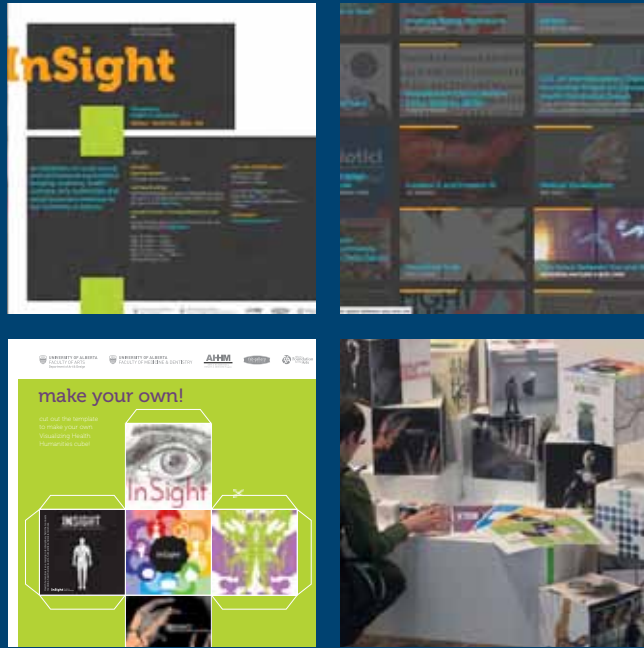
Student design work: Bryan Kulba (top left); Bryan Kulba with assistance from Cindy Couldwell (top right); Kim vanderHelm (bottom left and right)

The project continued to evolve.

Undergraduate and graduate students collaborated with exhibitors to help visualize their work. Student Kim vanderHelm designed a set of large cubes carrying representations of students' project work, which exhibition visitors can rearrange to explore connections in health humanities. She also designed posters with cube templates so visitors can make their own 'Visualizing Health Humanities' cubes.

Bryan Kulba is adding a blog to the web site to invite discussions about this and the next InSight exhibition that is planned for May 2013.

reflect

responsibilities

> visually translate + communicate

> make accessible to public

> reflect

Furthermore, design is also a cooperative process. The "Health Humanities Exhibition" design is a good example to learn this. The complex design of an entire exhibition or a system is not a work done by a single designer. It is a linear process that is separated to several sections. We submitted concepts and students from other class mapped the systems. After that, other people refine the visual system; construct the product and so on. A huge design project needs cooperation and sharing.

The Insight: Visualizing Health Humanities exhibition in May should be very interesting to see. As we have sort of a mock exhibition that seems to already be happening on the walls of the studio, it is evident that certain aspects of design cannot exist without another aspect. In DES395, it was my responsibility to create a visual system of representation for Health Humanities. I felt as though it was a great starting block for the overall project, knowing that other classes would be able to use the visual system and create a system of organization for the icons or logos, and further design an entire visual program for the department. Visual programs require both organization and an

SIGHT
Health Humanities

I consider a design process to be a roadmap which helps move a designer through a project. The Health Humanities project presented a number of challenges which made me aware of my design process and its failure to carry me through a more complex project. I tried to turn these shortcomings and weaknesses into strategies that I could apply directly to this project and as a way of growing as a designer.

My final design direction was a direct response to the lack of research available, and I'm not afraid to admit that. Since it's such a new field of study and existing research is either sparse, wayward, or directed to a very specific field of study, I decided to embrace the ambiguity knowing that the intention of InSight is to expand on these ideas. Why start, in the promotional material, to define the shape of the field when anyone would admit that it is still unknown? That's a job for the exhibit itself. My job is to set the tone for the debate.

Student reflections

I am awed by the efforts of our students and graduates.

Their sincere commitment to the project and to the integrity of the collaborative process through which it was realized has been both an education and an inspiration. It was truly a case of teachers learning with and from their students.

The **InSight: Visualizing Health Humanities** project was an engaging experience, not only for our students, but also for our extended learning community and the public we serve. It was a privilege to work together to explore and help to chart and advance this emerging field.

We are still reflecting on the exhibition, which just opened last week.

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DEPARTMENT OF ART & DESIGN

thank

sadler.takach @ ualberta.ca

**Pamela Brett-Maclean,
Director, AHHM**

**Aidan Rowe
Design Studies**

**Heather Zwicker
Vice-Dean, Arts**

**Lois Harder,
Assoc. Dean, Arts**

Jorge Frascara
Ben King
Maria Mayan
Guille Noël
Sergio Serrano

Bo Chan
Clint Carlson
Simon Kiedyk
Emery Norton

DES 395 A1
Instructor:
Bonnie Sadler Takach

Braun, Hannah
Brown, Anne
Choi, Hyeoi-Lee (Herri)
Culham, Natika
Denholm, Rachel
Du, Chong (Melody)
Holod, Janelle
Lapp, Linnea
Oberik-Olivieri, Sarah
Schlichter, Tiffany
Stewart, Lydia
Truong, Ashley
vanderHelm, Kimberly
Watterson, Joseph
Zadolia, Anastacia

DES 493 A1
Instructor:
Bonnie Sadler Takach
Teaching Assistant:
Maria Goncharova

Andersen, Shayla
Chee, Jianing
Chiang, Eric
Chou, Sarah
Clarahan, Jenna
Esak, Stephanie
Good, Robin
Greenough, Erin
Johnson, Nathaniel
Liao, Chenyi (Mooie)
Milton, Justine
Oberik-Olivieri, Sarah
Scott, Eric
Scott, Susannah
Worbets, Katya

DES 493 X1
Instructor:
Judy Armstrong
Tech assistant:
Sergio Serrano

Callfas, Kayla
Chen, Xueni
Csuti, Jarryd
Ferguson-Roberts, Janet
Gauthier, Daniel
Han, Xuanzi
Hartoyo, Andrea
Hofer, Crystal
Marchand, Kiersten
McConnell, Jackson
Paschen, Albert
Pritchard, Justin
Regino, Katrina
Zhu, Yunwen

DES 593 A1
Instructor:
Sue Colberg

Brown, Justine
DesCotes, Alexandra
Faferek, Iwona
Kulba, Bryan
Laface, Juliana
Lindquist, Erin
Perez Cervantes, Nicolas
Rossi, Christine
Satchwill, Matthew
Thomas, Shannon
Walton, Kathleen
Wang, Meiyi

DES 593 X1
Instructor:
Nada Zelkovic

Cochrane, Erin
Hui, Alison
Levine, Davis
Lewis, Stephen
Meyer, Sara
Ouellette, Natasia
Sigvaldason, Lauren
Wills, Christine

**UCDA Design Education
Summit Catch 22
organizers**

I also acknowledge the support of the Faculty of Arts, the Department of Art & Design, the Faculty of Medicine & Dentistry, the Arts & Humanities in Health and Medicine program, the Alberta Foundation for the Arts, the Fine Arts Building Gallery staff and Geo Takach.

Here are some things I learned from the **InSight** project.

Design is doing the best you can with what is at hand. For students, everything is literally at hand (from pencils to social media), and they are comfortable with using everything all at once. Technology can be defined as both the tools and media of design processes and outcomes, all of which can be used to help us make sense of many things, including emerging fields of human study and activities, such as the health humanities.

Working and learning together builds community, and while we learned about other disciplines, we also introduced our colleagues and the public to the benefits of design. As a design educator, I need to make more opportunities for students to learn how to do the best they can with what is at hand.

13.1 New Overloads: "day one"

Young Ae Kim
University of South Dakota

Abstract

The Discipline of design has been undergoing dramatic changes for decades and it shows no signs of slowing. The overall landscape of design has shifted to new digital devices, and professionals rarely focus exclusively on printed material. Technology has inspired rapidly changing elements of our culture, and society is now demanding specializations in fields such as service and interaction design.

People who are fluent in the current language of design are demanding qualities that are reflective and meaningful in this evolving technological world. Yet design educators have been slow to evolve their programs and embrace innovative opportunities in the design education. Educators who have taught the traditional foundation studies for years based on the Bauhaus movement will face vibrant irrelevance unless they revamp their courses with current technological advances. Educators must realize that education in design isn't only focused on typography anymore. In design programs based on the traditional structures, students learn many irrelevant methods, techniques, and experience, and scholarly design research has not been able to evolve at the pace necessary in our current culture.

This change is no longer a matter of choice, due to the significant shifts occurring in communication design; critical changes need to be made in the design education. The focus of this presentation is to consider how cultural shifts have led design educators to a point of essential change, how we reframe design education, and how we are supposed to translate different media influences in design experience in order to best meet the challenges facing our world.

13.2 Hybrid Pedagogy: A New Balance

Marilyn Jones
Lehigh University

Abstract

Pedagogical challenges of design education have college professors at a loss for how to prepare the today's generation to enter the work force and survive in a highly technical environment as designers. Traditional hands on courses such as printmaking, drawing and studio arts are being edged out to make room for courses in 3D modeling, web site design, interactive design, motion graphics, and HTML code. More, more, more digital curriculum is leaving many educators confused and overwhelmed. What is the core curriculum? What needs to be taught? Art and design, once viewed as right-brained activities, now give way to left-brained math and computer science aptitudes. While many view the left-brained thinker as king, it is the right brain thinker that brings the human factor to innovation and problem solving with hands on techniques, visual thinking and tactile explorations.

This paper focuses on the increased need to create a balance of approaches not only for the student but also for the visual artist. While we cannot ignore the need for digital proficiency, exploration of traditional techniques opens opportunities for experimentation and discovery. It is the balancing of the practice of design with the art of design: the digital execution of design with imaginative exploration that uncovers innovative solutions. This paper shares examples of how to bring that balance to education and practice. Through content and techniques, ipod playlists become three-dimensional books; digital and hand drawn typography merge and silk-screen and inkjet techniques become seamless.

UCDA

University & College Designers Association

2012

Virginia Tech

HYBRID

pedagogy

....

a new balance

Marilyn Jones

Assistant Professor Graphic Design
Lehigh University

....

Hybrid Pedagogy: a new balance

Pedagogical challenges of design education have college professors at a loss for how to prepare the today's generation to enter the work force and survive in a highly technical environment as designers. Traditional hands on courses such as printmaking, drawing and studio arts are being edged out to make room for courses in 3D modeling, web site design, interactive design, motion graphics, and HTML code. More, more, more digital curriculum is leaving many educators confused and overwhelmed. What is the core curriculum? What needs to be taught? Art and design, once viewed as right-brained activities, now give way to left-brained math and computer science aptitudes. While many view the left-brained thinker as king, it is the right brain thinker that brings the human factor to innovation and problem solving with hands on techniques, visual thinking and tactile explorations.

....

· ·

20⁄20

anniversary

This past year marked an important anniversary for me. It was my 20/20 anniversary. Let me give you another way of looking at it...

· ·

BC⁄AD

anniversary

It is my BC/AD anniversary. This is how I explain it to my students. BC, before computers, AD, all digital. 20 years working as a designer before computers and 20 years in using digital methods to produce my work.

· ·

However one day, things changed. After 20 years working with traditional methods, a regular client, who each year asked me to produce an annual report for him, suggested that instead of producing the report preparing mechanicals using the traditional method of pasting type on boards, that we would produce this year's report using the computer.

He knew I had recently purchased this beautiful Mac Classic but what he did not know was I had no idea how to use it. It had been sitting in my studio next to a stack of "how to" manuals for weeks. However, if you have ever worked as a freelance designer, you never tell a client something can't be done, you just find away to do it.

So, I began the project with very little knowledge and a lot of fear. I struggled and I did the best I could until about half way through the project, this appeared…

Imagine, I had no idea what this meant. Should I crawl under my desk? Should I evacuate the room?

I was clueless. Without going into detail, I did survive the event but you did not come here to learn about my introduction to the digital world. We all have our stories.

But one thing is clear. This moment is forever marked in my mind. Like where you were on the morning of September 11. Or if you are older, where you were the day JFK was assassinated.

There is a definite before and after or as I was asking myself is this better or worse? I was also thinking richer or poorer. It actually made me wonder if I could continue my career. There was a steep learning curve in those days. I took courses, spent endless hours staring at "how to" manuals. Eventually, once the internet and online tutorials came along, fears turned into success and sheer joy and for this marvelous tool and the wonderful devices that are now so much part of my life.

Blogger	Bloggy	Blogmarks	Folkd	Formspring
Blogtrottr	Blurpalicious	Bobrdobr	Fresqui	FriendFeed
BonzoBox	BookmarkingNet	Bookmarky.	funP	fwisp
Bookmerken	Bordom	Box.net	Gamekicker	GiveALink
Brainify	Bryderi	BuddyMarks	Gmail	Go.vn
Buzzzy	Camyoo	CardThis	Good Noows	Google
Care2	Chiq	Cirip	Google Reader	Google Translate
CiteULike	ClassicalPlace	Cndig	GreaterDebater	Grono.net
Colivia.de	Communicate	Connotea	Hacker News	Hadash Hot
cOOtopia	COSMiQ	Curate.Us	Healthimize	Hedgehogs.net
Delicious	DesignBump	Designmoo	Historious	Hitmarks
Dig This Webhost	DigaCultura	Digg	Hotklix	Hotmail
Diggita	diglog	Digo	Hyves	ideaREF!
Digzign	Diigo	Dipdive	iGoogle	ihavegot
doMelhor	Dosti	DotNetKicks	Indexor	Instapaper
DotNetShoutout	DotShare	Douban	iOrbix	iSociety
			Jamespot	Jappy Ticker

information age / age of distraction

Since those early days, to say, "things have changed," would be an understatement. Now, the digital tools and resources I use as a designer and educator have revolutionized not only my industry but have changed the world in ways no one could have predicted. This paper addresses not only how design educators adapt to the digital revolution in their class rooms but it also asks the question, how do we prepare today's generation with the thinking skills needed to become innovators and to prepare them for their unique career path? Our curriculums need to be flexible, making new connections in order to foster collaboration with other disciplines and providing critical guidance to help students chart their careers. The solution is not about what to teach, but how to teach.

Meeting the challenges of digital education has left many design educators feeling overwhelmed and confused. In order to provide students with the digital skills needed to be competitive in the job market, most schools have abandoned traditional courses such as drawing, printmaking and studio skills to make room for highly technical courses such as 3D modeling, web site design, interactive design, motion graphics, social media, app development and HTML/CSS code. These are just the tip of the iceberg when talking about digital proficiencies. This subject matter is in constant flux and also has educators at a loss for how to keep their own technological education current. Most design programs have fallen into the trap of abandoning the basics in order to stay on the cutting edge of the digital revolution, leaving curriculums weak, strained and fragmented.

A by-product of the digital revolution is that our students have changed how they learn and how they process information. They have been labeled Generation Net or Digital Natives and include those students born after 1980. For them, digital devices are a way of life and they can't imagine a world without the Internet. However, students attending classes in computer labs are easily distracted by the constant social demands of Facebook, blogs, tweets, emails and texting. Content retention is a major problem with their multi-tasking style of learning. Getting their attention is not easy and keeping it is extremely difficult. In addition, the core curriculum of graphic design represents the "bare bones" of the skills recognized as being valuable in today's job market. Proficiency in web design, social media marketing and design thinking, once viewed as giving a job applicant added value, are now viewed as expected skills.
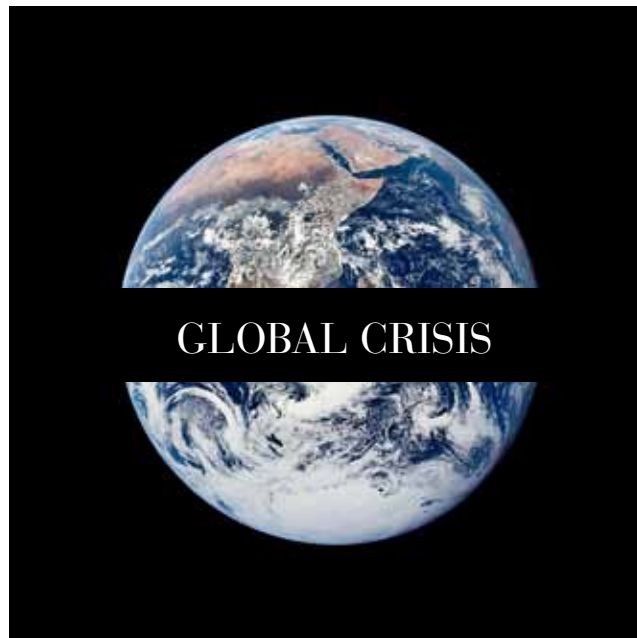
In addition to those skills, many people are looking to design as a way to address the multitude of Global Issues we are now facing. In their book, *21st Century Skills*, Trilling and Fadel state: "Add up overpopulation, over consumption and interdependence, melting ice caps, financial meltdowns, and wars and other threats to security, and you get quite a bumpy beginning for our new century."[1] We are in a Global crisis and never before has education been more critical as a young generations faces these challenges.

Several years ago, business leaders coined the term "design thinking" as a method for companies to develop innovative approaches to solve business problems. Corporations are relying on designers for guidance about how they can better understand and utilize the innovation process. One day our students will be looking to join design firms such as IDEO, Ziba, Smart, Continuum, Pentagram, and Google, companies that are looked to as being on the cutting edge of design and innovation. Unfortunately, our curriculums are not designed to prepare students in the complex thinking skills these companies are seeking in their employees. These companies did not exist 20 years ago and, many of the companies that our students will one day work for have yet to be born. So designing a pedagogical approach to advance student skills to the level needed to meet the needs of the future is a challenge and a case where our present formulas, theories and practices are totally inadequate.
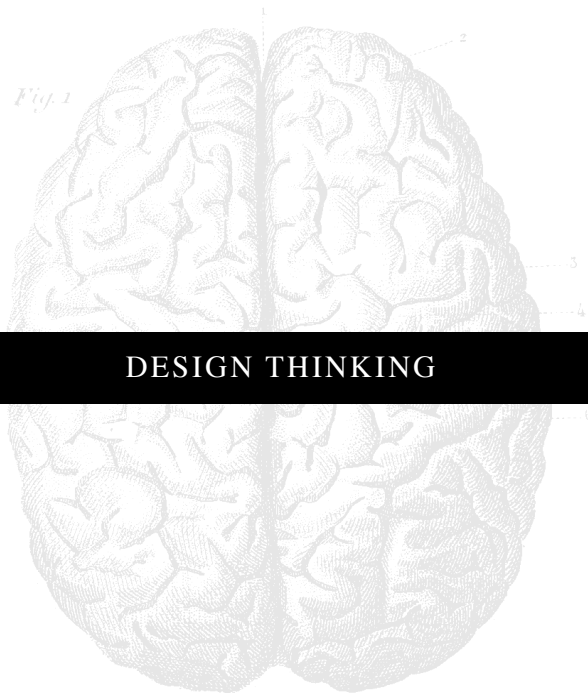
DESIGN THINKING

Let's start with what we do know, first, we know is change in inevitable and the rate of change will continue to accelerate. Secondly, we know human evolution is a slow process. Thirdly, we know that creativity is not a new concept. In addition, many educators are resistant to change. Terminology can change and the debate can continue however one thing that is not very quick to change is the structure of the human brain and how it functions. I will begin with that as our foundation for understanding how we learn, process information and innovate. Perhaps then, we can begin looking at a new educational model upon which to build a sound design education.

· ·

left		**right**

logical   visual
sequential   non-sequential
detail oriented   holistic
words and numbers   symbols and images
math and science   intuitive
practical   risk taking
analytical   random
objective   subjective
organized   creative
methodical   making connections
factual   curious
systematic   informal
formal   emotional
written language   exploration

likes rules   dislikes rules

· ·

The brain consists of two hemispheres, a left side and a right side. In fact, once thought to be unique to only humans, it is now found to predate humans by about 500 million years in the brain structure of simple vertebrates. Since the advent of MRI imaging, neuroscience research has made tremendous strides and most neuroscientists do not see the brain as simply left or right dominant. In fact, multiple studies reveal a shared responsibility by both hemispheres revealing the brain's vast complexity. However, it is still believed that each hemisphere has a very specific role and the difference between the two hemispheres has more to do with their style of thinking. The left hemisphere focuses more on details, the step–by–step methodical approach. The right side sees the big picture and has broader view of things, looking to make connections. Another way to look at it is to compare it to a camera lens. The left side is like a close up lens focused on the small details the right side a wide angle lens getting a panoramic view. This division of labor has much to do with species survival. While the left side brain is busy working at the daily chore of acquiring food, for example. The right side brain is watching for predators on the horizon. The right side is attending to global aspects of the environment and the left side addressing local aspects. It is believed the left side is analytical and the right side is creative. There is also another part of the brain called the corpus callosum, it acts as a bridge between the two sides allowing the two hemispheres to communicate with one another. Although the two sides communicate with one another, there still remains a belief that individuals have a strong preference for one side or the other and that this is an inherent quality. [2]

· ·

growth / fixed

So people are different not only in the way they think and their tendency for a particular style of thinking but also differ in how they behave. Certain behaviors influence an individual's ability to think creatively. Often it is as simple as how we perceive ourselves. This perception is a key factor in our development and seems to contribute heavily in our creative habits. In fact, this has a profound effect on the way we lead our lives. It can also determine whether we achieve our life
goals or not.

Carol Dweck, a Stanford University psychologist, describes these behaviors in her book entitled *Mindset.* She identifies two opposing mindset behaviors. From an early age we receive messages about ourselves from our parents, teachers and peers about how smart we are. Tests are administered in our educational system that quantifies our intelligence. While educators have been sensitive not to label these as IQ tests, by disguising them as tools to evaluate potential, bottom line, they are still IQ tests. Many believe that these scores are "fixed," no matter at what age they are given. That intelligence is an in born, genetic quality that cannot be changed. You are either smart or you are not. This theory continues throughout our education. Tests administered, grades given and it becomes part of the mounting evidence that says, "yes, indeed, I am

smart" or "not smart" depending on the results. This phenomenon fosters a "mindset" that can have very damaging effects and the damage is not what you would expect.

The individual that has received the message that they are smart quickly develops a "fixed" mindset. They believe their abilities are innate and will spend a lifetime trying to prove this over and over. They will need to confirm they are smart in every situation because if they fail that means they are "not smart", crushing their self-image of themselves. Evidence suggests, they are less likely to take on challenges at the risk of making mistakes and they will become paralyzed with the fear that perhaps they are not as smart as they once thought.

The opposing behavior is the "growth" mindset. These individuals received a different message. They believe that an individual's capabilities are just a starting point and that through hard work and effort they can be cultivated and grown. They believe in potential and self-motivation. Failure is seen as a way to improve and change and can be overcome. Fear of failure does not exist but seen as part of the process. They thrive on challenge, are able to over come obstacles and it becomes part of a life long learning process. The innovation process becomes a way of life. Increased risk taking, coupled with a reduced fear of failure, results in potential for greater achievement. Obviously, people who have been notable innovators have exhibited growth mindsets. [3]

In design project based courses, such as in graphic design where grades are not based on right or wrong answers, those students with the "fixed" mindset exhibit similar behaviors. After being giving an assignment the student with the fixed mindset will approach the professor before the project is due and ask "is this what you are looking for?" One is they want to make sure they will receive the desired grade, therefore limit the potential for failure and it also shows they are trying to meet the requirements as opposed to trying to challenge their own abilities.

It is doubtful that Einstein, as a student, went to his professors and said "is this what you are looking for?" In fact, he challenged his professors and was seen as a rebel. His professors believed he would never amount to anything. After graduating from college the Polytech institute of Zurich, he had difficulty finding a job because his verbal grades were low and he could not find anyone to write a letter of recommendation for him.

Einstein had his own strategy and saw his major accomplishments as stepping-stones on the path to his future goals. He is quoted as saying; "Anyone who has never made a mistake has never tried anything new." [4] He had a "growth" mindset. He knew making mistakes was part of the process. But the real value of Einstein's extraordinary accomplishments was his ability to visualize theories and equations. He speaks frequently about imagination and while I am not a scientist, I can appreciate the creativity that was part of Einstein's discoveries and innovative thought. He called his ability to imagine his ideas "visual thought experiments," [5] or if he were alive today his process would likely be described as "design thinking." In addition, his right brain dominance allowed this amazing burst of creativity resulting in theories that have become the basis of scientific thought.

The right brained, growth mindset set, is ripe for creative thinking and success but disastrous for our present education model and why so may innovative thinkers do not do well in school and therefore drop out. The list is long. Innovators that did not find success first time around and either did poorly in school or dropped out. Mozart, Picasso, Bill Gates, Steven Jobs, Dick Cheney, Henry Ford, Thomas Edison, Charles Darwin, Walt Disney, Abe Lincoln.

logical   visual

sequential   non-sequential

detail oriented   holistic

words and numbers   symbols and images

math and science   **teach**   intuitive

practical   risk taking

analytical   random

objective   subjective

organized   creative

methodical   making connections

factual   curious

systematic   informal

formal   **learn**   emotional

written language   exploration

likes rules   dislikes rules

Right now our educational system continues to teach to left-brain dominant students, many who have developed a "fixed" mindset. It is detail oriented, analytical and favoring evaluation methods that involve right and wrong answers. Students meeting rigorous college admissions requirements have scores that measure quantitative information. Their GPA's demonstrate a consistent history of successful, knowledge acquisition as it favors the left-brain dominant student and has the tendency to "weed out" right brain thinkers. But what we need to produce is smart, creative individuals with "growth" mindsets. While we don't expect to have the next Einstein in our classes how do we create a hybrid curriculum fostering creativity and a growth mindset but also developing analytical thinkers?

At the college level, a set number of courses are required for completion of a degree. A college catalog is distributed to each incoming freshman and it becomes their guidebook for the next four years. Carefully ticking off each required liberal arts course and major requirement, students mindlessly follow a path they are sure will lead them to certain employment when they have their degree in hand. This is cookie cutter education and creates a checklist with a predetermined outcome. This encourages the student to ask over and over, "is this what you are looking for?" "Am I taking the right courses in order to get my degree?" I do not fault the universities for publishing such a document. This approach has worked for many years. However, in today's unpredictable and unstable job market, this approach does little or nothing to prepare students for the future. That once reliable college degree no longer insures a student will be employable after completing degree requirements. Continuing this myth does an injustice to tuition paying students.

logical		visual
sequential		non-sequential
detail oriented		holistic
words and numbers	teach	symbols and images
math and science		intuitive
practical		risk taking
analytical		random
objective		subjective
organized		creative
methodical		making connections
factual		curious
systematic		informal
formal	learn	emotional
written language		exploration
likes rules		dislikes rules

However, research shows that today's generation wants to learn much differently. They are now favoring a much more interactive, hands on approach to their education. They are digital explorers and recognize that they have information at their figures tips and have the ability to learn independently. Their use of the Internet has made them visual learners. Creating blogs and personalizing websites and Facebooks pages has become a way of life for them. They want to learn and view learning as cool. However, the very nature of browsing the Internet has left them uninspired to read large amounts of text either for assignments or instructions. They also report learning better though discovery and research. They still come to college to meet people to socialize and interact with faculty. In fact, they view faculty members who are committed to teaching as the key ingredient for their success. They look to faculty to teach them how to learn as much as what to learn. They believe their learning should be a 50/50 balance between lecture and interactive. Students want to collaborate and work in groups as well as address real world problems in addition, do better when they actively construct their own knowledge.[6]

· ·

What do we know about how Gen Net students want to learn?

They...

are intuitive visual learners

learn better through discovery than being told what to do

want to learn and view being smart as cool

prefer to work in teams

refuse to read large amounts of text either for assignments or instructions

do better when they actively construct their own knowledge

They prefer 50% lecture and 50% interactive. (3)

Gen Nets believe projects should be based on authentic real world problems and questions that students care about.

Students are most successful when taught how to learn as well as what to learn.

Want to collaborate and brain storm in order to pick the best solution.

Learn better through discovery

Although the Net Generation may be different in many ways, some things stay the same.

Students still come to college to meet people, to socialize, and to interact with faculty.

They view expert faculty members who are committed to teaching as the key ingredient for learning success[7]

· ·

a new balance

ANALYTICAL

CREATIVE

logical
visual
sequential
non-sequential
detail oriented
holistic
words and numbers
symbols and images
math and science
intuitive
practical
risk taking
analytical
random
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subjective
organized
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methodical
making connections
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systematic
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written language
exploration

likes rules
dislikes rules

Although today's generation favors a more creative, right side approach to education, what is needed to compete in the world, is a hybrid approach combining both creative and analytical thinking. Innovation, product development, graphic design involves not only getting the big picture but also focus on the details. The well educated and informed student will bring more solutions to the table. Students can expand their knowledge of multiple disciplines by taking a wide range of liberal arts courses or couple one major discipline with another. Employers are seeking well rounded students who can apply their knowledge of a wider range of subject matters and are aware of global issues. This approach gives the student "added value" and therefore be more marketable.
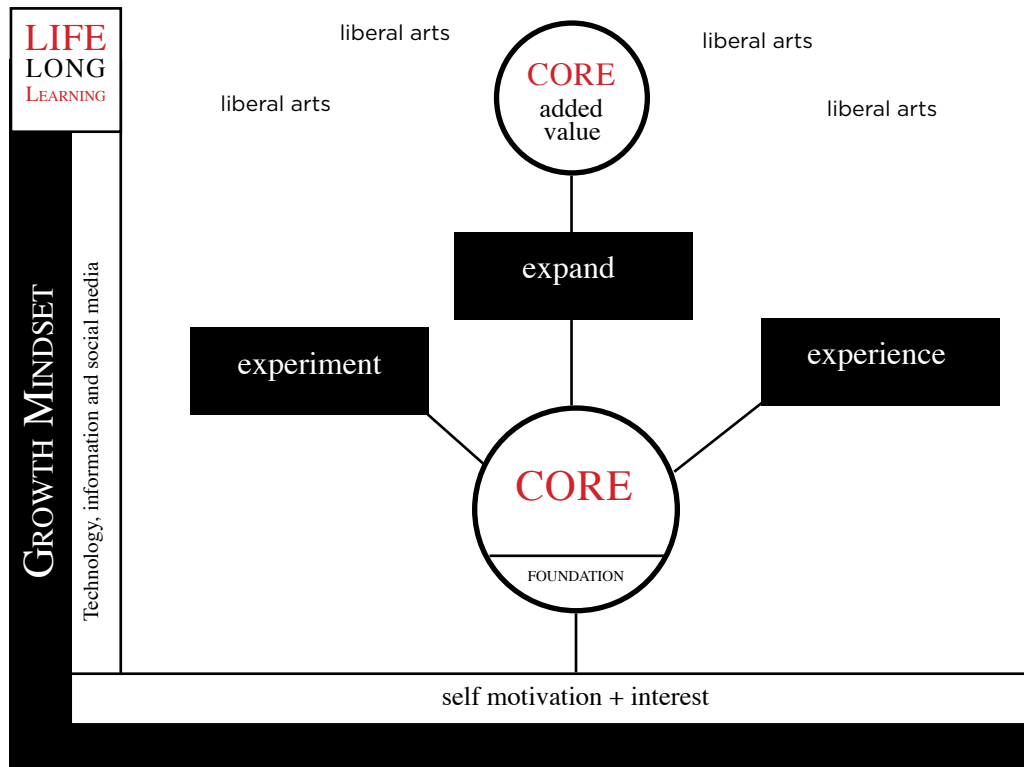
Generation Net students are ready to learn in a whole new way but are we equipped to provide the guidance, environments and thinking skills to help them prepare for the future? These students recognize the need for adding value to their résumé by completing double majors or minors. They enhance their education by taking a wide range of liberal arts courses. They seek out experience both within the university by participating in service learning groups and outside through internships. In other words, they learn by doing. Another unique characteristic of the successful student is they take charge of their educational career. The most successful design students are the ones that not only get mastery of core concepts but also have advanced their knowledge of digital technologies independently.

The word curriculum translated from Latin means " a path to run in small steps." Successful students, with the help of mentors, will chart their own path. They have "growth" mindsets and through self motivation and interest, create a career path focused to their interests and are unique to them.

• •

The role of the design educator will be transformed into the role of a guide and mentor. Perhaps teaching less and expecting more from our students. As we help our students chart their path we too will have to evolve and develop life long learning skills to stay current as we adapt with the changing world.

Analytical and Creative
• encourage students to utilize both right brain and left brain thinking skills

Core Curriculum
• simplify materials and deliver in both lecture and digital form
• have high expectations for retention

Collaboration
• foster interaction and project development between faculty and students
• encourage cross discipline activities and learning

Research
• direct students to a variety of quality research sources
• encourage project development with deeper and thoughtful research

On/off
• expect students to work both in digital and traditional environments

Self motivation
• allow students to develop individual learning plans and set personal goals for learning

Prototyping
• design projects for hands on experiences
• encourage experimentation and discovery through materials

Space
• support open learning environments, labs or studios instead of classrooms
• connect to areas individual work areas with collaboration spaces

Concept
• encourage creative problem solving thinking

Independent learning
• encourage self directed and self motivated digital proficiency for life long learning

Technology has changed education and how students communicate, want to learn and process information. We now know more about thinking styles, learning behaviors and the value of collaboration. Hopefully, as educators, we will unite in our goal to create a new balance, a hybrid approach with methods and techniques that will meet the challenges and needs of a future generation.

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13.3 Equilibrium in Design Education: Hybrid Instruction Methods

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University of Wisconsin at
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Abstract

The challenge in teaching graphic design courses is that the instructors must concurrently teach both soft and hard design skills. Soft design skills—aesthetics, intuition, design principles, recognizing harmony in page design, etc.—are emotive parts of design. Technical or hard design skills give form to students' ideas either in print or digital media. In summation, soft design skills are a creative analysis of ideas, and hard design skills are the technical implementation of ideas. If instructors focus on teaching either soft or hard design skills, it is at the expense of the other skill set.

Soft design skills are best taught in a face-to-face meeting where students can interact, observe, create and critique. In contrast, hard design skills are taught best in an environment that lends itself well to practice, repetition and learning by doing— eLearning facilitates that. Hence a hybrid of face-to-face teaching and eLearning is required for effective art and design education.

Available eLearning options for design education, such as www.lynda.com, only offer passive learning. The presenter explored ways to create interactive tutorials that simulate software and make the learning process engaging. As a result of this exploration, a research project was funded by the University of Wisconsin's Emerging Technologies Grant in 2009-10. The immersive components were implemented in 2010 courses.

The results of these implementations reveal overwhelmingly success, as evidenced by student feedback. Balanced hard and soft skill sets make students perform better in class as well as out in the workforce. Participants of this presentation will learn how to create innovative hard and soft skill equilibrium in their own educational environments, blending live teaching with eLearning styles. They will also learn how to harness the potential of social media to improve teaching and learning.

Equilibrium in Design Education:

Hybrid Instruction Methods

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Assistant Professor

University of Wisconsin at Whitewater

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Equilibrium in Design Education:
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Equilibrium in Design Education:
Hybrid Instruction Methods

Introduction:

One of the challenges of teaching graphic design courses is that the instructors must teach both soft design skills and hard design skills. Soft design skills—learning about aesthetics, intuition, design principles, balance, recognizing harmony in page design, etc. are emotive parts of design. Hard design skills or technical skills help students give form to their ideas either in print or digital media. In summation, soft design skills help students create and analyze ideas and hard design skills help them implement their ideas.

Employers usually want to hire designers who possess a good balance of both soft and hard design skills. Teaching both these types of skills in a classroom setting presents a predicament for graphic design instructors. Given the limited amount of contact hours during the semester it is difficult to spend time teaching all of the above in a balanced way. Soft design skills are best taught in a face-to-face meeting where students can interact, observe, create and analyze. Technical skills are better learned by: observing and then creating the same or simultaneously observing and creating.

Usually design faculty teach hard design skills by giving a demonstration in the lab/classroom. In addition some of them upload notes or files that they were using for demonstrations on a course management system like D2L or Blackboard.

Students find it difficult to gain the desired technical skills just by observing the class demonstration once and then creating the same or simultaneously observing and creating. Students may be able to recreate what the instructor showed in the demo in the same class but it is hard for them to retain it for a longer period of time. It is often found that if the students are able to observe a demo at least three to four times and simultaneously practice it the same number of times, it increases their understanding and retention of the content. They can then apply these skills to a design project throughout the duration of the course and also after completing the course. The limited contact hours during the semester don't allow that much class time to be devoted to repeating each demonstration three to four times.

As students are unable to retain all the aspects of a class demonstration, it hinders their design process. Working on the project outside of the class when the instructor is not

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there to help them with the technical skills, becomes a frustrating process. Lab monitors are usually not equipped to answer specific design software (like Adobe CS) related questions, as they may not have the requisite skills themselves.

Having students in a class with different skill levels, further adds to the challenge. Students that are using the software for the first time respond best to slower pace of tutorials and gradual shifts in the level of difficulty. On the other hand, students with previous software experience respond best to faster pace of tutorials, challenging projects and other elements that would help them build on their current skill level. Instructors have also found that sometimes self-taught 'skilled' students may not have the right skills. Their methods need to be rectified or they need to learn accurate and efficient methods to perform effectively.

A survey conducted in Spring 2008, in an introductory level class taught by the author at University of Wisconsin Whitewater (ACINDP 151: Intro to Multimedia Aesthetics) revealed that out of a class of twenty students fourteen or seventy percent identified themselves as traditional students and six or thirty percent identified themselves as non-traditional students. The class covers elementary 2D design (soft skills) and basic Adobe CS software (hard skills). It is a required class by Graphic Design majors and is also offered as a 'service class', i.e.—non-majors can take it to fulfill computer proficiency and/or art course requirements. The class consisted of twelve graphic design majors and eight non-majors. The diversity of students in terms of majors and their standing in college further adds to the complexity of teaching art and design in classes like this. It intensifies the disparity between skills level of students and their learning styles.

If the faculty focuses on either one of the soft or hard design skills it is usually at the expense of the other. Depending upon a faculty's personal strength and preference they may focus only on teaching either soft or hard design skills and leave the other on students to 'self-learn'.

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Research Phase:

As written above given the contact hours available for a course during the semester it is difficult to balance teaching both soft and hard design skills. The question is how does one balance teaching the two skills?

The author has been asking this question to himself and his colleagues since he started teaching design about a decade ago. He read several literatures on how learning happens and experimented with different teaching strategies and technologies (The National Research Council 1999). Most of the literature and personal experimentation indicated the following—effective learning happens when the learners are engaged and it is enhanced when the learner sees its potential applications and implications.

It was also found that soft design skills are best taught during student teacher face-to-face interaction—through sharing and analyzing examples, critiquing or discussing students' work, case studies, class discussions, emphasizing conceptual understanding, having students apply their conceptual understanding, etc. Thus a classroom setting facilitates teaching soft design skills in an effective manner. On the other hand hard design skills are taught best in an environment that lends itself well to practice, repetition and learning by doing. ELearning provides such an environment along with giving students the option to learn at their own pace. It also encourages students to become life-long learners (Gould, 2003). This is especially important as new technology or newer versions of design software are introduced frequently, requiring students to constantly upgrade their skills. If a course or teaching method requires them to become life-long learners then it is easier for them to learn the new technology on their own, especially after graduating from college. This helps them in staying abreast with the dynamic and ever changing graphic design and multimedia field and always having current and market relevant skill set. Hence a blend of face-to-face and ELearning or a hybrid course is required to teach hard and soft design skills in a balanced way. (Lloyd-Smith, 2010)

Keeping this in perspective the author started researching available options for teaching hard design skills using ELearning. Websites such as lynda.com (http://www.lynda.com) were examined as teaching options. They provide video based tutorials to help one learn software or acquire technical skills. Learners have to subscribe to the service

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and pay recurring fees to learn software. The fee goes up further if learners want to learn multiple software. In Fall 2008, students in were assigned these movies to supplement in-class demonstrations (University of Wisconsin at Whitewater, ACINDP 151: Intro to Multimedia Aesthetics). "It is passive. I miss the constant help and feedback from the instructor." *(Student Sample 1)*—was a common feedback received from the students regarding these tutorial movies.

 The students had to watch the movie, take notes with it and then try to practice the lessons by using the notes. Otherwise the students had to watch a couple of steps, stop the movie, repeat the steps on their files, start the movie again, watch a couple more steps, stop the movie again and repeat the steps on their files. Students found alternating between the movies and their files in this fashion confusing, frustrating and ineffective. Many times they also found that the movies did not directly relate to the project at hand or they had to watch multiple movies to get a part of the project done. In their evaluation comments students wrote:

"Though the tutorials are helpful… going back and forth between the movie and my file is frustrating." *(Student Sample 2)*

"It skipped an important step... when I try to do this myself it doesn't give me the same result." *(Student Sample 3)*

"If there is a way that we can click on the video rather than switching between movies and working files that will be really helpful." *(Student Sample 4)*

Setting Up Goals and Criteria:

The last comment from a student led the author to explore ways in which he could create interactive tutorials. Tutorials that simulate software and require students to actively participate in the learning process. They should also give constant feedback to the students—what they are doing right or what they are doing wrong, and how to correct what they are doing wrong.

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A wish list of goals and criteria was developed for the envisioned tutorials, including:

- The tutorials should be hands-on and thus engaging. Creating interactive and immersive tutorials should greatly enhance the learning and retention of skills.

- The tutorials should be customized to the needs of the specific course and UW-Whitewater students (where the writer teaches). Depending upon the course and lesson the tutorials should integrate software learning with solving simple and complex design problems. This would help students learn the techniques as well as ways to apply these techniques in their design projects. Research says that, students learn better when they can make the connection between what they are learning and its application in the real world. These tutorials should surely assist in making that connection. (The National Research Council 1999).

- Different chapters or modules of these online tutorials should be created to teach the required skills on piecemeal basis.

- Tests or interactive quizzes should also be developed (after every chapter), to ensure the understanding and acquisition of the requisite skills by the students. Students with higher skill level should have the option to test out or bypass one or more of the chapters. This would ensure that students with all skill-levels are accommodated in the course, which is presently one of the biggest challenges for teaching hard design skills.

- Students should be able to repeat these tutorials as many times as required within or outside the classroom. They should be able to learn technical skills on-demand and at their own pace.

- These tutorial movies should be delivered in a universal or platform independent format, i.e.— they can be used by both Mac and PC users (two of the most common platforms).

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Equilibrium in Design Education:
Hybrid Instruction Methods

Development/ Execution Phase:

In Fall 2008, funding was obtained through Curricular Redesign and Emerging Technology Grant provided by the Learning Technology Development Council, University of Wisconsin System. One of the requirements of the grant was that the research projects had to be undertaken as collaboration between two or more University of Wisconsin System (UW System) campuses. Hence partnership was sought throughout the UW System. Finally an agreement was entered into between UW-Whitewater (where the author teaches) and UW-Green Bay to collaborate on the research project.

Research was conducted to find out what sort of application or technology could be used to create tutorials that would meet all or most of the criteria set forth. After experimenting with different applications Adobe Captivate was found to be the most capable of developing the conceived interactive tutorials.

Existing Graphic design courses were evaluated and a course to be used for the pilot interactive tutorials was selected. An in-depth study of Adobe Captivate was undertaken and then a plan for the entire course was created. The course was broken into lessons/ modules, and a number of interactive tutorials within each module. The sequence of tutorials and content for each tutorial was also developed. Three sample tutorials were created to test on different platforms, resolutions, and computers, to establish ways that would make them universally accessible. Other formal aspects like navigation, text, fonts, colors, etc. of the tutorials were also experimented with.

Based on these trials a standard template was developed for the tutorials. Ten model interactive tutorials were developed and tested by a sample group consisting of both students and faculty on both the participating campuses. Based upon feedback from the sample group and observations made by the author and the co-investigator, the template and model interactive tutorials were refined.

Afterwards a pilot module was developed. Several new interactive tutorials were created, merged and sequenced to work as one cohesive unit within this module. Plan for an assessment structure was also developed. A test or interactive quiz to assess the student's understanding of the course material for the pilot module was created.

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Subsequently the pilot module was offered to students in an existing course (Spring 2009, University of Wisconsin at Whitewater, ACINDP 151: Intro to Multimedia Aesthetics). Student feedback was sought for the effectiveness of interactive tutorials apart from the efficacy of the entire course. Among other things—learning objectives, delivery through D2L (course management system), intuitiveness of interactive elements, ease of use, etc. were part of the assessment criteria for the tutorials. Enhancements were made to the module based on this assessment.

Finally tutorials were created for the entire course and offered to the students in multiple courses in Fall 2009. These tutorials simulated the software application and required student interaction at each step. Students had to click on menus or select tools the same way they would when they would be working in the software. They provided constant feedback to students about whether they took the correct action or not. Students could also access hints if they got stuck at a step. Unless a student successfully performed the required action in a step, the tutorial would not move to the next step.

Assessment Phase:

A mix of formative and summative assessment was used to assess the tutorials. A sample test was developed to assess the teaching of a module. It helped in assessing students learning and retention of that chapter. After the students had gone through the tutorials they were requested to fill out a feedback form regarding their experience using the tutorials. The feedback form, in-class observation by the instructor, and discussions with the students helped in getting feedback on the accessibility, usability and content of the tutorials.

The students overwhelmingly found the tutorials to be beneficial. When asked "Did you find the tutorials helpful in your understanding of the software": Ninety six percent (96%) students clicked yes; three percent (3%) clicked no and 96%; and one percent (1%) did not comment.

They also preferred learning through a blend of face-to-face and online techniques.

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When asked "Which teaching format would best work for a design class like this one?" Eighty six percent (86%) clicked on—Mix of face-to-face and online instruction; ten percent (10%) clicked on—Only face-to-face instruction; and four percent (4%) clicked on—Only online instruction.

The tutorials helped in imparting both soft and hard design skills in a balanced way, thus leading the students to acquire holistic design skills. As the students had the opportunity to learn the applications using the tutorials online (outside the class), more class time could be devoted to teaching and discussing design principles, typography, how to stir emotions through design, etc. Additional time was also available for critiques, discussions, brainstorming and refinement of design concepts. As a result, the students produced better quality design solutions and projects.

Class Time:	Before	After
Teaching Hard Design Skills:	55%	25%
Teaching Soft Design Skills:	45%	75%

As the above data shows, time spent on teaching hard design skills went down from fifty five percent (55%) to twenty five percent (25%)—a reduction of thirty percent (30%). This led to increase in time spent on teaching soft design skills by the same amount, i.e.—thirty percent (30%).

All the other criteria set forth for the tutorials were also met. The tutorials were designed keeping in mind the specific needs of UW-Whitewater and UW-Green Bay students. They merged software learning with solving elementary and advanced design problems. Thus the students learnt the required technical skills as well as their applications in both classroom-based and real-life design projects. It assisted students in making the connection between classroom (or online) teaching and their real world applications. As the tutorials were problem-centered rather than content-centered they increased student motivation and their eagerness to learn as well.

The tutorials also helped facilitate self-directed learning amongst students. They allowed

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for non-linear learning and gave students the option to select a path that best suited their specific learning needs. The instructor was able to guide and help students into the self-directed learning mode during their class meetings. During the initial stages of the class the instructor had the students take some of the ELearning chapters within the traditional classroom setting. This gave students confidence and encouraged them to become self-directed learners. Consequently students were easily able to move on to acquiring hard-design skills on their own in an online setting.

The tutorials simulated real software, making the teachings interactive and engaging. The students found it better than the previous methods that were used in the class before, like—one-time demonstrations, notes, etc. They also found them to be more effective than learning through tutorial movies (on websites such as lynda.com), which offer only a passive way of learning.

The students seemed to better understand and retain the teachings. They asked fewer technology related questions than before. Usually students ask a lot of such questions around the end of the class, as retaining what was taught during the initial stages of the course can be arduous for students.

D2L (course management system) provides analysis and reports of each student's progress. Faculty can find out information like: the number of times a student went over a tutorial and how much time did they spend on it per visit. This gives the faculty a fair idea about the ease or difficulty a specific student is having with a specific tutorial. The faculty can supplement the tutorials by a personal one-on-one session if a student is having trouble with a concept. Use of these analytics makes the teaching even more effective, and utilizes the time in the best way.

During the first phase of the development of the tutorials, students who were non-majors and were taking the course for General Education or General Art credits, found some of the tutorials to be lengthy and time consuming. Subsequently these bigger tutorials were broken down into smaller modules. The completion of smaller sequential modules helped in motivating students to complete the longer chapter and the entire course. Sample tests were developed to ensure that students acquired the requisite skills in the correct manner. Students with previous experience were able to test out or

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bypass one or more chapters. Checking off tutorials that they had undertaken increased students' self-confidence. Thus it acted as an internal motivator to complete the tutorials and projects.

Students with nascent skills are usually afraid to ask questions or ask the instructor to repeat a demo step. On the other hand students with higher skill level are bored as they find the pace of the tutorial to be slow. Students were able to repeat these tutorials within or outside the classroom as many times as they wanted to (see data below, D2L analytics, Fall 2009). As the students could learn on demand, at their own pace and at their own level, it ensured that students with different skill-levels were well accommodated.

Average Number of Times Students Assessed a Tutorial:

On an average went over the tutorials 4 or more times: 33%
On an average went over the tutorials 3 times: 52%
On an average went over the tutorials 2 times: 8%
On an average went over the tutorials 1 times: 5%
Did not go over the tutorials: 2%

The tutorials were delivered in swf (flash movie) format that could be accessed on any web browser. This made them platform independent and universally accessible, i.e.— they could be accessed on either a Mac or a PC. Students found the navigation structure to be simple and easy to understand and follow, making the tutorials user-friendly and intuitive. The tutorials were delivered through D2L (a course management system). This made it easy to integrate the tutorials in the existing course structure and making them an integral component of the course.

Excerpts From Student Feedback:

"It was like you were sitting with me and teaching me one-on-one" *(Student Sample 1)*

"The direct relationship between the tutorials and the projects made it really easy to apply the learning and get an in-depth understanding of the concept." *(Student Sample 2)*

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"It was like learning to ride a bicycle with training wheels." *(Student Sample 3)*

"I loved the simulation. You had to click on menus or stuff like you would actually do in Photoshop. Great! When I started working on class projects, I already knew what to do and where to click." *(Student Sample 4)*

"It takes me time to learn a computer software. I could go over the tutorial again and again without holding up the class." *(Student Sample 5)*

"The tutorial will not move to the next step unless I succeeded in the present step. This made sure that I correctly learnt the technique." *(Student Sample 6)*

"Towards the end of the course, I needed to refresh some of the techniques taught at the beginning of the class. Having access to the tutorials made it really easy to do so. Wish that other faculty and teacher also create similar tutorials for their classes." *(Student Sample 7)*

Limitations:

Creating these interactive tutorials is a time consuming and labor intensive process. They require constant creation i.e.—whenever a new version of a software is launched new interactive tutorials would have to be made. As software are launched frequently a rapid production of these tutorials is required to keep up with them. Faculty with their full-teaching loads may not be able to find time to keep updating the interactive tutorials with that frequency.

Looking Ahead:

Most of the suggestions and observations from the initial phase were incorporated into the second generation of tutorials. For example—suggestion like having both voice-

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over and text of the voice-over on the slide were included in the final tutorials. Some of the students also requested for printouts or a pdf file of the text. These would be made available to the students when these tutorials are used in the future.

The possibilities and implications of this project are endless. Opportunities to implement these tutorials in an online course or creating a bank of such tutorials (to be used by the department, college, university or the entire University of Wisconsin System) are being explored. Delivery of these tutorials through mobile devices and tablets is also being assessed.

Conclusion:

Flavin wrote in his paper "E-Learning Advantages in a Tough Economy", good classroom teachers have always blended methods, incorporating reading, writing, discussion, audio/film, projects and practice. Using the right teaching method, in the right situation and for the right purpose, should be a guiding design principle of all exemplary instructors (2001).

A hybrid design course offers the best of both worlds—it has the social interaction and instructor guidance aspect of a face-to-face class; and elasticity, adaptability, self-pace and self-direction of an online course. Live and direct communication between faculty and students is the best way to teach soft design skills therefore face-to-face meetings can focus on teaching soft design skills. As 'learning by doing' is the best way to learn hard design skills, eLearning components lend themselves well to teaching them. A blended or hybrid instruction aids in creating a balance between teaching hard and soft design skills. Having a balanced skill set helps students to perform better in the classroom as well as their future workplace.

The research project achieved its goals and addressed the needs and issues which were set forth. These interactive tutorials have providing a great tool in aiding classroom instructions. They not only improved the quality of design education but also the quality and quantity of student learning and work.

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13.4 Designing for the Human Experience: Integrating Design and Technology

Nancy A. Ciolek
Rochester Institute of Technology

Peter Byrne
Rochester Institute of Technology

Chris Jackson
Rochester Institute of Technology

Panel

In this panel discussion the speakers will discuss the development of curriculum and projects that integrate design principles and processes into courses with significant technology components.

The speakers will give an overview of projects in which students build on systematic processes for developing design skills in interaction design, graphical user interface design and motion design.

Methods and strategies for integrating the acquisition and development of software and scripting skills that are required for courses such as Web Design, Interactive Design, and Time-based Design will be presented. The speakers will demonstrate how specific projects build on the knowledge and skills acquired in previous design curriculum.

An overview of the future goals for graphic design and new media design education at both the undergraduate and graduate level will be presented.

The panel will address the following questions:
- How can we keep a balance of good design within a technology driven course?
- What strategies are incorporated into the instruction to instill the use of strong design principles?
- How do we see the changes in visual information delivery affecting how we teach design in the classroom?
- What avenues can educators pursue to keep up with technological advances and bring that knowledge to the classroom?

I Mean What You See

Samantha Lawrie
Auburn University

Poster

A dualistic point of view characterizes our culture's stance toward the world. We tend to see the world in terms of either/or [good/bad, subject/object, mind/ body …] and this tendency finds its expression in the classroom [right/ wrong, form/function, theory/practice …]. To polarize the teaching of design and technology only adds to our list of either/or. And while the relationship between design and technology becomes increasingly complex, I believe it is our dualistic point of view that keeps us "stuck." Furthermore, I suggest that our dualistic proclivity sets the practice of graphic design adrift; and lacking a solid foundational ideology, teaching the discipline becomes haphazard at best.

Drawing on the work of John Dewey, Louise Rosenblatt, Mark Johnson and others, this poster seeks to ground the practice of graphic design in an "aesthetics of human meaning" (Johnson, 2008). It questions the assumption that words, images, colors, shapes … are meaningful in-and-of-themselves — an assumption resulting from our dualistic stance — and suggests that meaning is affectively rooted within an embodied experience of the world. The paper then introduces implications for the teaching of graphic design that would entail from such a mooring. Finally, the paper concludes with questions and concerns for further research.

Literature, Posters, Culture and the Designer

Cameron Davis
Liberty University

Poster

Equipping young design students with excellent technical skills, good design concepts and all the while helping them engage them with significant-content for their designs to impact culture is a challenge. The poster has long been a popular art and communication form in popular culture. The French Art Nouveau era saw such masters as Jules Chéret and Henri de Toulouse-Lautrec utilize the poster to advertise popular entertainment of the day.

With the advent of the Modern movement, posters were used in many way including propaganda for war efforts by combatants on all sides of the world war conflicts. James Montgomery Flagg and Alfred Leete were two of those artists producing war posters.

Post Cubist artists such as A.M. Cassandre and Joseph Binder produced posters for the travel and entertainment industries.

More recent artists using the medium of the poster include Saul Bass and Milton Glaser. Their posters reacted to and influenced popular culture.

Interdisciplinary integration is an important part of the educational process. I designed a project for the Advanced Graphic Design course that integrates a study of the lit- erature of popular culture and design within the medium of the poster.
The assignment was to choose a science fiction or fantasy novel, read the novel and produce a report on the book. The report was to contain a summary of the story and a description of the primary characters in the story.

After the paper is written, the student is to imagine the book is made into a feature length film. The assignment is then to develop a marquee poster that would be used to publicize the film.

All imagery for the poster is required to be original including any photography or illustrations. Proper work flow is used as the images are developed in Photoshop and typographic design is managed in InDesign.

Different versions of the project have been developed over the last few years. One variations is to have the student create their own story plot and cast of characters.

The results of the project have been phenomenal.

Designing Artifact to Enhance Place

Randy Olson
Brown College

Poster

Many times public art is viewed as a visual amenity with scant ties to location. For the successful design of public art that transcends this detached status, and imbeds itself into the fabric of the community, several criterion must be met. This criterion provides a framework whereby educators, artists, funders and curators can more successfully integrate artwork into community.

This poster is a synopsis of a case study that seeks to determine to what extent a resident's experience of community is shaped by public art. The artifacts examined were commissioned through the City of Minneapolis' [Minnesota] Neighborhood Gateway Project that ran between 1992 and 2004. Over that time period eighteen Neighborhood Gateway artworks were commissioned.

Five pertinent themes were discovered by this study: Binding Metaphor, Multimodal Sensory Engagement, Sense of Pride, Creation of an Axis Mundi, and Opportunities for Dialogue.

Theme 1. *Binding Metaphor;* the artwork must have a story that binds it to the community. The most successful artworks either used an existing theme that describes the community or used an easily identifiable archetypical metaphor.

Theme 2. *Multimodal Sensory Engagement;* people want to touch the artwork! Sensory engagement though functionality, or the removal of artificial barriers, greatly enhances the community's engagement with the work.

Theme 3. *Sense of Pride;* everyone wants to feel unique. The artwork should function at the level where residents take pride in the uniqueness of the installation.

Theme 4. *Creation of Axis Mundi;* humans need a feeling of belonging to place. The most successful artworks reinforced that sense of place.

Theme 5. *Opportunity for Dialogue;* a discourse community can evolve from the artwork. Provision of opportunities for unstructured civic engagement adds to the intrinsic value of the artwork.

Awareness of these themes by educators, and implementation of these themes by students, can assist in the design of artwork that successfully binds artifact to community.

No Context: A Daily Experiment in Graphic Image Making

Marius Valdes
University of
South Carolina

Poster

Visual storytelling has always been a significant and ever-present means of visual communication. *Graphis, Eye, Communication Arts, Print,* and *The New York Times Magazine* have all acknowledged the legitimate contribution of visual storytelling to the design community and society in general. These reputable publications have featured profiles of graphic novelists, photo and illustrative journalists, advertising agencies, and design studios that are immersed in the practice of storytelling.

This past spring during a junior sabbatical at my university I undertook a creative project to produce a daily cartoon called "No Context" using a methodology of combining fashion photography, comic book text bubbles, and hand-drawn cartoon characters. My objective for the project was to experiment in creating something that was an evolution of the visual style I have developed in the past ten years. I wanted to create images that were fast and spontaneous, usually in one hour. I wanted to recycle images and text from my childhood comic book collection and the stack of fashion magazines I had accumulated last year. Finally, I wanted to distribute the work immediately online and in the long-term through public exhibitions.

The result of this creative project was a new body of work consisting of one hundred new original works. I developed new methods of making images and a new way to express myself through found text. I developed images that are visually graphic and humorous by using the editing process of sifting through hundreds of comics to find just the perfect mix of image and text.

Recently, I exhibited the work during The Piccolo Spoleto Arts Festival in Charleston, South Carolina. This summer I will work with an undergraduate student to produce a printed publication of the completed works. My poster will document this self-initiated creative project from concept to execution and it's future usage.

The Impact of Technology Cycles on Design Education

Shaun Foster
Rochester Institute of
Technology

Poster

The speed of technological progression is increasing. Software updates coming every 2-3 years have increased to annual or biannual and a few have updates released every 2 months! This poster specifically describes technology cycles and the impact on design education.

A technology cycle is the process where new tools and techniques reduce the time it takes to accomplish a task. This cycle revolves around tool creators, technical tool users, and designers. The tool makers develop hardware, software and workflow processes. As new hardware improvements are made new tools are created to take advantage of the hardware. Once the tools reach widespread use, technical tool users figure out how to automate and optimize their use. There is an additional stage of combination and integration where process and technologies from other disciplines are integrated from other fields. This starts a new technology cycle.

When a new technology cycle starts many new tools emerge trying to find an optimal integration and application. Incremental tool improvements result in a 10-20% increase in productivity. Paradigm shifting technologies result in a 100-400% increase. Learning and adopting all of these new tools and processes requires considerable time. This investment is rendered useless when these new tools condense into one button accomplishing what previously took multiple steps instantaneously.

One impact of technology on design education is that students may identify new tools before professors. One solution is to use group sourcing. Have students get credit for identification. The whole class can try the new tools and apply critical thinking to how the tools may be applied in creative ways. Then refocus the class to learn good design principles. Finally have the students apply the new technologies in ways so that they use them to reinforce good design practices and not let the medium become the message.

The Sustainable Design Office: LEED-type Certification for Graphic Design

Rick Gavos
Texas A&M University-Commerce

Poster

Environmentally responsible practices in the graphic design profession are critical today with the current emphasis on waste accumulation, resource depletion, and global warming trends. Graphic designers, and graphic design firms in particular, often espouse themselves as agents of change. However, as an unaccredited profession, unlike architecture and interior design, accountability to the global environment has remained mostly an individual pursuit. Graphic design is often called upon to address cultural issues, cause-related interests, environmental concerns, and corporate social responsibilities, and yet designers and design firms are not held accountable for the artifacts they produce or the environmental impact of their production.

This study attempts to define parameters and guidelines for "green," sustainable graphic design practices by: 1) employing current graphic arts-industry environmental practices; 2) overlaying select architectural Leadership in Energy and Environmental Design (LEED) certification criteria; and 3) creating a holistic approach to best practices in the graphic design profession. A baseline of current practices and awareness will be established to provide an informational foundation with which to merge these identified architectural criteria. This framework will be used to develop a certification program methodology tailored for designers and design firms.

Ultimately, a governing body would administer and ensure compliance for a national, as well as international, environmental accreditation process. Furthermore, this certification and these tenets have the potential of being developed and incorporated into design education curriculum at the university level. Applying this new methodology to graphic design and its principles, products, and place will be crucial to shifting the status quo and creating a new level of professionalism for graphic design.

SustainableDesignOffice 1

Anniston Civil Rights & Heritage Trail Map

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Poster

Design is no longer just a service, but a necessary tool to approach the real questions of human society. Design, in terms of design research, includes signifying what happens with local, particular, and timely knowledge (Kuutti). The practicality of design should take a critical role to settle arguments in the actual problems of social and community issues by means of socially engaged practices as well as technology—the sum of practical knowledge.

The presentation discloses a university–community collaboration project, initiated by a Design Studio Course from the MFA program in partnership with the Spirit of Anniston. The graduate design students examined a tourism map for Anniston Civil Rights and Heritage Trail. The project proposes design innovation by collaborative action that reflects the rigorous outcome of novel ideas and technologies exploring the social potential of design and pedagogy.

In essence, the project considered: 1) design practicality, a critical role to settle arguments in the actual issues of community and technological concerns within design education 2) design innovation by collaborative action gaining pragmatic knowledge interactively in the process to support positive social changes based on design-driven approaches 3) a multi-dimensional map for tourism by conceptualizing the core idea of the system.

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Current Trends in the Presentation of a Professional Graphic Design Portfolio

Sandra Day Slayton
Liberty University

Poster

What does a student need to know about developing their professional portfolio in order to compete in the new global market?

The presentation format for the graphic design portfolio has expanded to include multiple formats for various venues in our current technology driven world. The time and place gap is narrowing with the online opportunity to be interviewed and show your portfolio around the world via the internet and smart technologies.

The current formats for presentation of work in a portfolio context are; the traditional book portfolio that may be in a presentation case or a self-publish book format, portable file format (PDF) portfolio, web portfolio which includes a professional web page and various professional networking sites like Behance or Coroflot, social networking sites like Facebook or twitter, professional blogs and for some with interest in motion graphics careers video based sites such as YouTube.

I will present the process of portfolio development with examples of student work representing each of the portfolio formats. The images presented on this page are samples from one student who chose to use a self-publish book format, my presentation will show other formats such as screw post presentation books as well as a leather presentation case.

inspiring
design