UCDA DESIGN EDUCATION SUMMIT

NIMBLE

PROCEEDINGS

Includes Abstracts and Papers

ROBERT BUSCH SCHOOL of DESIGN
MICHAEL GRAVES COLLEGE

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ROBERT BUSCH SCHOOL OF DESIGN
KEAN UNIVERSITY, UNION, NEW JERSEY

UCDA DESIGN EDUCATION SUMMIT

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University of the Incarnate Word

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1 Typecast: Fonts That Encourage Racial and Ethnic Stereotyping

Bonnie Blake
Ramapo College

Abstract
The proliferation of free font sites has unleashed a Pandora's box of culturally offensive fonts. The most egregious examples can be found under categories that include "foreign look" and "foreign imitation" as can be found on popular free font sites such as "Da Font" and "1001 Fonts." The most offensive of these fonts resembles those from marginalized cultures indigenous to parts of Asia, the Middle East, and Africa.

Ellen Lupton wisely stated that, "Type is what language looks like." ([1]*Thinking with Type*)

When we use fonts that resemble those of non-Roman languages, we arguably appropriate what we think another culture's language looks like, even if we have no knowledge of that culture. Our construct of foreign cultures and subsequent naiveté can largely be attributed to visual representations in media and ethnic-themed, consumer-related goods and services.

Offensive fonts represent just one of the many pedagogical hurdles we face as design educators. How do we introduce and nurture global awareness, diversity, and cultural sensitivity into our creative classrooms? What's more, how do we teach students to develop an awareness of racial and ethnic stereotypes? Arguably, the "offensive font" topic provides a relevant segue into this discussion. In my paper, I address my own experiences in these areas and in so doing, create what I hope is an ongoing dialog with fellow design educators.

[1] Lupton, Ellen. *Thinking With Type* (2nd ed.). Princeton: Princeton Architectural Press, 2010.

2 Do I publish? Or do I perish?
Strategies, places, and sites to help you succeed in the "publish" part of your creative scholarship

Randy Clark
South Dakota State University

Abstract
It all starts so innocently. Your department head sits down with you over a cup of decaf and explains the part of your contract that specifies that you must "publish" to stay employed. And you think, 'that should be easy.'

After several attempts and more than a couple hundreds of dollars, you realize, you are competing with the likes of Pentagram at every turn. They have millions of dollars of client money, and the advantage of being Pentagram. You, well, you are just you.

You can win at this game.
But it won't be easy. You will have work at it, and over a prolonged period of time. You have to honest with yourself about your chances and your talent and the level of your work. You'll soon realize, you are swimming with the sharks. So you better become a shark.

Strategies, places, and things.
We'll go over how to score projects and clients. Which competitions are easier to get into than others. What entities are simply "we'll give you an award, if you give us your money" type of contests. What competitions you MUST enter, and what competitions you should run from. What competitions are solid measures of peer review for both you and your students.

Also, we'll review the websites, the costs, the downsides, the upsides, what to enter, what to be careful of submitting, and what the heck! It's only money.

You not only will survive and make tenure, you will prosper.

3 Contemporary Topics and Today's Design Student

Denise Bosler
Kutztown University

Abstract
Ask a classroom of design students,"What is a current design-related contemporary topic?", and a myriad of answers from Pantone's Color of the Year to the hipster trend in logo design are offered. The trend-related response is typical. Trends are in the here and now, visually easy to identify, and talked about in all varieties of social media, however a trend is not contemporary topic. Topics or issues being widely discussed in relevant publications, conferences, professional groups and through broad online community of design and design-related professionals are. Some topics are concrete, others are abstract. Why is discussing today's contemporary topics so important? Contemporary topics are about innovation, awareness and education. Being aware and engaged in topics that are driving changes in the design industry offer students a competitive advantage, relevance and success in the profession.

This paper will present the exploration of a graduate student course based upon the topic of contemporary topics. Students are challenged with determining relevant contemporary topics with the goal of transforming the research findings into an appropriate form that communicates a position, educates a targeted audience and/or raises awareness of the researched topic or issue. The presentation will include conversations about contemporary topics, research, student process of self-discovery and the final self-directed projects.

4 Connecting Academic and Research Communities through Design

Eugene Park
University of Minnesota

Abstract
In academia, initiating interdisciplinary conversations and collaborations can be a difficult task, given the scale that many universities have grown over the past decades. Even at an age of fast internet connections, faculty and staff simply do not have the time to click through the hundreds, if not thousands, of research profiles for every prospective collaborator. Such inconveniences can also extend to the students who wish to be engaged in research projects with their faculty. The creation of user-friendly, interactive databases can be seen as the ideal solution, but these technologies often come at hefty prices, demanding money that many academic institutions do not have.

This presentation will examine how graphic design and data visualization methods can be used to initiate interdisciplinary connections within the university. Through the collection user-inputted data from faculty and research-staff, it becomes possible to design cost-effective materials (from posters to websites) that serve as comprehensive overviews of the shared interests and diversities of academic research and service learning. More importantly, the primary design objective behind these deliverables is to serve as discussion pieces that can help initiate cross- disciplinary conversations and identify unforeseen connections and opportunities in regards to research and teaching at the university.

5 A Living Graphic Design History

Keith Cummings
Pennsylvania State University

Abstract

The history of graphic design is unquestionably full of fascinating, memorable stories. But it is history after all, a subject not all students find inordinately interesting, much less relevant to their creative work or future careers. The challenge for the modern educator is to present the information required to meet the goals and objectives of a history course, while still engaging the students' attention before they have a chance to take a mental nap for the duration of the class. This ennui with regard to history in general is a real danger today, as it seems that, more so now than in past generations, contemporary students need to make a personal connection between incoming stuff and their own lives, and if they don't find it, their level of curiosity drops dramatically. If they don't say it aloud, they are clearly thinking: *"Sure maybe Johannes Gutenburg was cool, but movable type and 1450? What's that got to do with me?"*

So, how then does the educator pluck golden threads from the large and rich tapestry of history and inspire the concept of current relevancy in entire square inches of that enormous fabric of facts, events, movements, artists and their myriad accomplishments? One of the most effective ways of anchoring the past to the present in modern young minds is to engage students with compelling stories from history, and to draw parallels between graphic design's stories and the students' own history through specifically-tailored course projects. Stimulating narratives, with their inherent conflicts, crises and resolutions, can help create an intellectual dialogue between the ghosts of history and the modern student. In the end, good old-fashioned storytelling can lift pertinent information from the dry pages of time in a way that even 21st century students can appreciate.

6 A 'Shorter' Study Abroad Experience for Design Students

Michael Clayton
University of the Incarnate Word

Abstract

"Even in challenging economic times, making sure that study abroad is part of our college students' education is a vital investment... sending our students overseas is not a luxury. It's a necessity."

(Steves, Rick. "Rick Steves: Study abroad is necessity, not luxury." *USA Today.* Web. 18 January 2012.)

When talking about design education, many faculty and professionals agree that some international experience is valuable. However, several factors keep many students from these experiences: rigid design curriculums, the anxiety of financial burdens or debt, and fear of traveling alone.

Our design program opted for short, focused, cost effective, faculty-led travel experiences for our students. As an undergraduate I participated in such a trip. Over the years as a professor, I have adapted that experience into a single-semester course with a 7-12 day travel component.

I have led dozens of students on trips to locations like Beijing, London, Paris, and New York City. I would like to share with like-minded faculty my process for organizing and teaching such a course. Combining history, culture, transportation, language, and design helps prepare students for their experience abroad. Asking them to design and produce a final project based on research collected during the experience gives purpose during travel and solidifies the experience upon returning.

In this paper I will share how to navigate the process with your institution's Study Abroad office (legal aspects of travel), comptroller's office (financial), travel agents (transportation and accommodations), and Student Affairs (safety and conduct). Collaborating with other academic departments to help cut costs or optioning to use an all-in-one travel service will be discussed.

It may sound like a daunting task but the benefits of the experience more than make up for the hard work. Doing it the first time is the hard part. Let me show you how.

7 Getting Students' Hands Dirty: Generating Type Solutions Using Letterpress and Other Media by Getting Students' Hands Dirty.

Paula J. Curran
Iowa State University

Abstract
Using Adobe Creative Suite is great for generating type, but have we inured ourselves and our students to the sometime dullness of it all that make the eyes glaze over with its lack of luster, imagination, and creativity?

I have developed a variety of methods students use to create compelling typographic compositions. In my presentation, I will show a case study that encourages students to create imaginative type solutions. Through their use of 3D type, video, and the use of polymer plate printing, as well as letterpress printing with wood, Ludlow, and Intertype (Linotype), I will show a variety of methods students to use to create typography that is charming, innovative, and inspiring.

8 Design Pedagogy and its Relationship with Recruitment, Retention and the College Experience

Matthew Solomon
Salve Regina University

Short Description
This paper will discuss strategies for recruitment and retention in graphic design and will address the difficult balance of providing rigorous programming while also being attractive to prospective students, maintaining enrollment, nurturing student growth and supporting an enjoyable college experience.

Abstract
Faculty are increasingly engaging prospective students and their parents, coaxing them into their program. Admissions offices are enlisting department chairs and faculty members to speak about their program, facilities and to answer questions about the professional field. Graphic Design educators promise incoming students an exciting experience as well as a versatile degree with a strong job market after graduation.

The challenge that design educators face is that they exist in a very competitive and fast pace field of practice. We might communicate that design is a fun and dynamic discipline, but the grueling nature of process, critique, revision and curation in a design program can be very intimidating. It can be difficult for faculty—not only recruiting prospective students into a design program—but also retaining enrollees.

Design educators must remember that students are also interested in the college experience—a period of growth for their mental and emotional well-being. Students build lifelong friendships and relationships — learning about and experiencing life with their colleagues.

This paper will discuss how, as educators and faculty, we can nurture a valued, wholesome and exciting college experience while promising and delivering a rigorous, comprehensive design program that provides students the tools they need to enter the professional design community.

9 Inverted Meanings

The cultural context of typefaces and how their associations can be used subversively

Patricia Harris
SUNY Old Westbury

Abstract
My paper and presentation covers teaching typography while exploring its cultural context. In a classroom project, these meanings can be subverted to give rise to camouflage messages. The look is antithetical to the content.

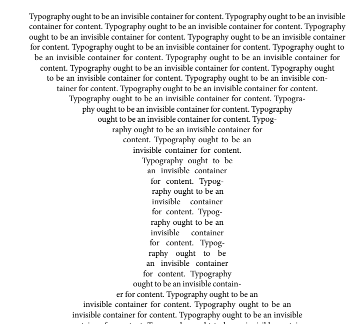
There is a fascinating history of ideas associated with various typefaces. The style of the letterforms reflects an ideology in the culture that gave birth to it. Blackletter is an example of a typeface that evolved from the Guttenberg Bible, to be the official typeface of the Nazi party, and later to represent outsider culture in the form of skateboard magazine design, as well as Goth and Punk bands. It is a typeface that is both authoritative and vernacular. It came out of mainstream culture and yet retains a quality of other that has given rise to its outsider status. It's very design, based on handwriting and a surplus of ink, is antithetical to technology.

My presentation would involve the history of Blackletter as well as contemporary instances of various typefaces that mix up their original associations. Another interesting example is Neuland, a typeface used in racist phamphlets that later came to be used on bookcovers for writers such as Richard Wright. Cultural associations can become unconsciously embedded in a typeface's expressive qualities and cultural meanings. Another example is the use of signage to emphatically broadcast political speech in design. Here the Russian Constructivists are quoted while anti-establishment messages are put forth. Artists such as Barbara Kruger, 'I Shop, therefore I am,' have used this device.

My presentation would also include a camouflage project wherein students design messages with type faces that usually carry opposite meanings. This is a guerilla activity wherein students place messages in a public space. It is a project that emphasizes how style influences viewers before they read the content of a message. I will show student examples of this project.

Inverted Meanings: The cultural context of typefaces and how their associations can be used subversively
Patricia Harris
State University of New York at Old Westbury

As I teach in a small liberal arts college, the State University of New York at Old Westbury, many of the students in my graphic design classes are not art majors. When I introduce students to typography, I want to give them an understanding of the expressive qualities that type contains. This is something that most people take for granted and have never stopped to analyze. Most graphic design professionals are familiar with the "crystal goblet" idea, first put forth by Beatrice Warde, in an article entitled, "The Crystal Goblet or Printing Should Be Invisible," written in 1932 and presented as a lecture to the Society of Typographic Designers in London.[1]



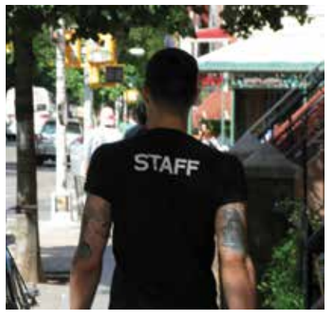
The Crystal Goblet

Even clear and rational typefaces contain a program that expresses the ideas of a particular cultural moment. Helvetica is a good example of this. While considered the crystal goblet of typefaces, it expresses the value attached to clarity and order that characterized Swiss design in the 1950s.

Jonathan Hoefler is quoted as saying there is a poverty of terms available to describe the qualitative aspects of type and that every word you could use to describe it exists entirely outside of typography.[2]

Signage vs. Vernacular: the camouflage project
In introducing students to typography, I attempt to get them to look at typefaces as form and not just content. I have a project called camouflage, wherein I focus on signage vs. vernacular. This project addresses two main styles of typography, one for public signage that connotates authority, and one for handwritten, casual messages, the vernacular. In this project students use the form of one to hold the content of the other. Students become aware of the expressive meaning of type by using it subversively. They become engaged with altering something in their everyday environment but doing so in a way that escapes attention. That is the subversive element. New messages are hidden beneath a familiar style. Typographic messages look like one thing but they are really another.

In introducing students to this project, I show examples of signage and vernacular type that I have encountered wherein the look is the inverse of the meaning.



images©Patty Harris

In the first set of images, a street sign is shown as a handmade, hidden guidepost on the corner of a building. On the right, an official looking sign in a lampost is in reality an altered pooper scooper sign that now says 'Curb your ego'.

In the second set of images, a sandwich board displays carefully rendered typography that displays a knowledge of design. This design, which refers to print, appears in a context where it will be wiped off at the end of the day. A t-shirt from Creative Time, an arts organization, displays simple, emphatic signage that expresses authority.

There are several artists who mine the territory of typographic convention and unexpected content.

image©artsy.net and interviewmagazine.com

Barbara Kruger

image©Ilona Granet

Ilona Granet

image©phaidon.com

Lawrence Weiner

Barbara Kruger employs a style of type that has connotations of authority and also references advertising. It has aspects of the Russian Constructivist style as well. Her graphics address social issues while exploring the personal. Here she is addressing abortion rights and consumerism in a political manner that also addresses effects on the individual.

While mimicking the style of street signage, Ilona Granet creates signs that express new and radical rules for public behavior. She tackles the interface between the public and the personal, making the personal a social directive.

Lawrence Weiner's phrase on this pier in New York City looks like public signage. However, it is enigmatic and poetic. It encourages a reflective moment in one's travel through the city. Its meaning and effect is quite different from your average street sign. It doesn't direct movement but rather calls to mind a quiet thought.

There are also examples of vernacular type that present themselves as public signage. Molly Woodward has a blog, Vernacular Typography, wherein she explores this type of signage. She is interested in cataloguing these signs that reflect local and unofficial identities.

images©Molly Woodward

Molly Woodward blog.vernaculartypography.com

Finally, the best example of camouflage design and typography comes from The Yes Men. They recreated a copy of The New York Times in 2009 that had wishful headlines. It mimicked the style of the original in its entirety. These were printed and handed out in Union Square Park, New York City.

images©The Yes Men

The Yes Men

I was originally introduced to the camouflage project by Ellen Quinn of New Jersey City University while teaching typography. The first time I gave this project to students, they physically made the signs and put them up on campus. A sign such as photography for a photography lab, ended up saying pornography. However, the style was so close to the original that no one noticed. Students loved this project. They were energized and excited over the possibility of altering the administrative apparatus of the school. The projects were playful and a surprise and a delight to encounter. Apart from this playful aspect, students had to use several skills in developing their new signage. They had to find a matching font, and have it sit in exactly the same manner as the original. They had to pay attention to size, letter spacing, and leading. It takes finesse and a good deal of control to have your new sign fit in as to be unrecognizable. I currently assign this project as one wherein we take photos and alter them in Photoshop. This is not as dramatic as working on site. However, it does require Photoshop skills which I cover as part of the project. In order for the signs to look realistically like camouflage signs, students need to pay attention to many elements of the design.
What are the concepts covered in this assignment?

Critical thinking
- Concept for intervention

Design skills
- Matching typefaces
- Attention to leading and tracking
- Use of Photoshop filters to make strong replicas of the original
- Attention to spacing, alignment, and placement

Student work

image©Lina Almonte

Lina Almonte

image©Alexandria Hawkins

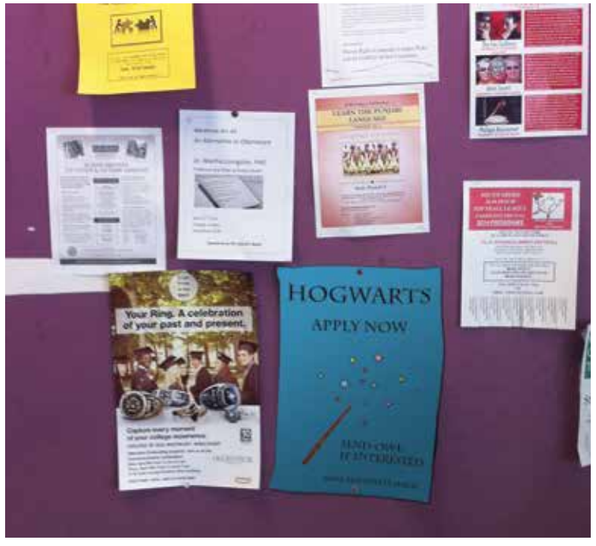
Alexandria Hawkins

image©Josue Exhume

Josue Exhume

image©Leonard Roitburd

Leonard Roitburd



Zachary Cole

image©Zachary Cole

Simone Embrack

image©Simone Embrack

Daniel Park

image©Daniel Park

Nicole Coote

image©Nicole Coote

While this project is a simple exercise it contains elements that raise awareness about qualities that are profound. Namely, how the way things look shape our thoughts and impressions in less than a second and how this quick reading of signs can be misleading.

Semiotics
We live in a world of signs that we read in milliseconds.
A typeface can be a signifier of authority. It can also contain other meanings while doing so.

What is a typeface expressing?

- historical connotations
- cultural context of the present moment
- expressive design of the letterforms

Typefaces and the expression of their styles is an ongoing dialogue.

From Ellen Lupton and J. Abbott Miller in Design Writing Research: [3]

> "According to Derrida, the functions of repetition, quotation, and fragmentation that characterize writing are conditions endemic to all human expression—even the seemingly spontaneous, self-present utterance of speech or the smooth, naturalistic surfaces of painting and photography. Design can critically engage the mechanics of representation, exposing and revising its ideological biases; design can also remake the grammer of communication by discovering structures and patterns within the material media of visual and verbal writing."

References:

[1] Bierut, Michael, Helfand, Jessica, Heller, Steven, and Poyner, Rick. ed. Warde, Beatrice, "The Crystal Goblet or Printing Should Be Invisible," *Looking Closer 3, Classic Writings on Graphic Design*, New York: Allworth Press, 1999. 56-59. Print.

[2] *Helvetica*, Dir.Gary Hustwit, Perfs. Manfred Schulz, Massimo Vignelli, Rick Poynor, Wim Crouwel, Matthew Carter, Alfred Hoffmann, Mike Parker, Otmar Hoefer, Bruno Steinert, Hermann Zapf, Michael Bierut, Leslie Savan, Tobias Frere-Jones, Jonathan Hoefler, Erik Spiekermann, Neville Brody, Lars Müller, Paula Scher, Stefan Sagmeister, David Carson, Erwin Brinkers, Marieke Stolk, Danny van den Dungen, Michael C. Place, Manuel Krebs, Dimitri Bruni 2007. DVD. Veer and Swiss Dots.

[3] Lupton, Ellen, Miller, J. Abbott, "Deconstruction and Graphic Design," *Design Writing Research*, New York: Princeton Architectural Press, 1996. 23. Print.

10 Flipping the Graphic Design History Classroom: What my students and I learned from turning off the projector and actively exploring the history of graphic design.

Laura Franz
University of Massachusetts Dartmouth

Abstract
Design students are used to an active learning environment: they make, they crit, they refine, they share. As a design instructor, I'm used to the active learning environment too. My students learn as much from their trials and errors—and from each other—as they do from me.

Preparing to teach my first History and Context of Graphic Design class (5,000+ years, 60 students, 14 weeks, and me) next semester, the most daunting part of the task before me was shifting my role from a studio classroom facilitator to a voice in the dark.

Then my University hosted a series of "flipping the classroom" workshops. I learned that the flipped classroom reverses homework and lecture elements—assigning short video lectures for homework (along with the usual reading), and devoting class time to hands-on activities, collaborative problem-solving, and discussions. The purpose of the flipped classroom is to promote student engagement with content.

I supplemented the workshops with video presentations and other online resources, and have been planning my inaugural flipped class ever since.

Homework will be "prep work" for the coming class: a short video each week plus the usual assigned chapter(s) to read. In class, we'll explore timelines, curate work within and across historical periods, explore "old" materials and methods, and discuss repeating patterns throughout history.

Will it work? I honestly don't know. But I'm prepared to share my experience:

1. What I learned from researching how to flip a classroom (and my resources).
2. My objectives for the course.
3. How I structured the 14 weeks based on items 1 & 2.
4. What worked.
5. What didn't.
6. What I'll change next time.

Flipping the Graphic Design History Classroom: What my students and I learned from turning off the projector and actively exploring the history of graphic design.

Laura E. Franz, Professor, CVPA at UMass Dartmouth

This past semester I taught *The History and Context of Graphic Design*.

Challenges and Advantages

Teaching the course came with challenges. But each challenge came with an advantage.

Challenge: it was the first time I taught an art history class.
Advantage: I'm not good at memorizing names or dates. I'm not even sure what year I got married. History has always been hard for me to make connections and meaning out names and dates... And in my experience, I often teach best the content I struggled to learn.

Challenge: it was the first time I taught a large class (56 of the 60 seats filled).
Advantage: I knew 52 of the 56 students from teaching studio classes. I knew their name, their faces and had good relationships with them. This helped make the class feel smaller than it was.

Challenge: it was also my first lecture class.
Advantage: I flipped the class. Students read and watched videos in advance instead of sitting through a 3-hour lecture. They worked through activities in class that encouraged critical thinking and problem-solving. We could unpack problems much like we do in our studio classes.

Challenge: it was the first time I "flipped" a class.
Advantage: I have 18 years experience as a teacher. And I'm a good teacher. I knew that even if it didn't go as well as I hoped, the students would leave knowing far more than they knew coming in. And I have tenure. I've always felt safe taking teaching risks, but it definitely helped to face so many challenges knowing I wouldn't lose my job if everything went down in flames. I tell my students to take risks in my classroom. It's a safe place to fail, try something new, and push against the boundaries of what you are already comfortable with. As a tenured faculty member, I think I have an obligation to do the same. It's what helps keep me nimble.

Flipping a Class

If you're not familiar with what a flipped class is...

Before: Students are introduced to information outside of class;

During: Students do an activity in class that promotes critical thinking about the subject;

After: Students have the opportunity to check their understanding and evaluate their learning.

I had before and during worked out pretty well... I did not nail the "after" part, and this created some problems.

Before each class, students prepared to participate.

Information was introduced outside of class in two ways.

Textbook. Students read "The Story of Graphic Design" by Patrick Cramsey (despite it's annoying book cover). They also took an online quiz on each chapter.

I chose this book because it tells a story... it tells why, where, and how things happened. It has less images than I'd like, but I find books with more images usually don't have enough text... and books I found with enough images and text tended to be overwhelming (such as Meggs, which has 700 pages and is an amazing resource, but not delightful to carry around).

Video Lectures. Students watched videos I prepared and posted each week. These 20-minute videos touched on social, political, economic, technological, and entertainment trends, fine arts, and showed designers and work not covered in the book.

Examples from 1960s–1980s

During class, students did activities.

One of my favorite activities was on the first day. Intended to show them that history is complex (and to look beyond the chronological order of work, organized around a chosen theme), students lined up in alphabetical order and held on to a "time line".

They were then asked to hold on to different time lines — themes based on classes they've taken and teachers they've studied with.

Finally, they got back into alphabetical order without letting go of their thematic time lines. Students saw how more complex their "time line" was when underlying interests and experiences were taken into account.

Other activities included a *time line spanning from the 3700 BCE to the end the Late Middle Ages.* And exploring old methods of recording ideas: *calligraphy and letterpress* printing.


Students used *the LATCH system (location, alphabet, time, category, and hierarchy)* to organize thumbnails of work shown in the book and the videos around different themes.

Among other things, the LATCH projects allowed students to explore the kind of work being done at different times: for example the shift from religious work to secular work, and then the relationship between commercialism and propaganda.

I didn't want students to get bored working with the LATCH system, so the second time around, I asked them to focus in on one of the themes they found, identify a group of images from the theme, and *mock-up an exhibit* of those images.

The last in-class activity was to *design and mock up a game* that other students could use to help them learn/memorize the names and work of the 100 designers I wanted them to know.

The Research Project

The final project for the class was a self-directed, somewhat open-ended research project. Students picked a theme and identified at least three points in history that supported or unpacked the theme in some way. Students were encouraged to choose a theme based on their own interests in design, or their own role as a designer. They could work alone or in small groups.

Final results included books, posters, animations, and videos. Some groups chose to explore methods of "making" — trying their hand at "old" methods (calligraphy, letterpress, woodcuts).


One group, inspired by the history of currency in society and the possibilities of using technology to make exchanging foreign currency easier, developed a new approach to currency. Another team merged the old and new, using a CNC router to carve quotes from historic designers... then using the letterpress to print onto discarded color laser prints from the computer lab.



Student Feedback / Survey

In preparation for next year's class, I asked my students a couple of questions.

If I were to keep one activity next year, which one should I keep? The most popular answers...

- Games (helped with memorization)
- Calligraphy (learned an old way to do something)

If I were to cut one activity for next year, what one should I cut? The most popular answers..

- Games (too rushed, too late in the semester)
- Calligraphy (took too long, wasn't worth it, would be OK if we did less of it)

What activity was the most helpful (to learn about or understand the History and Context of Graphic Design)? The most popular answers...

- Games (helped with memorization)
- LATCH (helped see the work in new ways, also helped remember the work)

What activity was not particularly helpful? The most popular answers...

- Exhibition mock-up (don't know why we did this, felt like an arts and crafts project)
- Calligraphy (too long, wasn't worth it)

Is there anything I didn't cover (or didn't cover enough)? The number one answer...

- Contemporary design and designers

Did the format of this class work for you?

- 60% said yes.
- 40% said they wished there were some lectures.
  "Taking notes helps me retain information"
  "Lectures help reinforce reading"
  "15 mins review of material would help it stick more"
  "Mix of both activities and lecture would be beneficial"

Changes I need to make next year.

Earlier I mentioned that I didn't nail the "after" part. The part where students *have the opportunity to check understanding or evaluate learning.* This caused a problem for about 15% of the class, who reported: "this felt like an Arts & Crafts class. I didn't learn anything."

Next year I need to allow students to check their understanding and evaluate their learning from each activity. Nothing too taxing, because 85% of the students recognized they learned. Ideas include: Q & A sheets, reflective writing, and discussing results at the start of the next class. Any of these evaluation methods can help the 15% see what they learned (or were supposed to think about). They also give students the opportunity to write (and reinforce their learning).

In addition, I'm going to add a short lecture to the start of each class. And have small quizzes throughout the semester (on those 100 designers I want them to know).

Finally, I'm going to move the contemporary designers to the start of the semester. It's hard to make connections between past and present when the students aren't familiar with contemporary work. My hope is that by covering contemporary designers first (then going back to 3,700 BCE and moving forward again), students won't feel that the contemporary work is rushed and incomplete. I'll try and create an opportunity to discuss contemporary work/views as we work our way forward through history.

In the end, my students and I both learned a lot.
I'm looking forward to doing it again next year.

Quick Tips & Lessons Learned

Tips that helped me flip my classroom

- Make *connections between readings and in-class work*, so students see the relevance of each.
- Develop in-class exercises that allow students to *critically engage with information* (and build knowledge) on their own. It's not busy work.
- *Hold students responsible* for readings and videos via quizzes or worksheets.
- Cycle through in-class exercises, *repeating exercises*. Students will be negotiating new experiences, allow them to apply "how to do the exercise" to new information.
- *Be flexible.* Activities may take more or less time than expected, may need more room than expected, and so forth. Keep an eye on the objective, not just on how smoothly an activity goes.

Resources

- *A Class on its Head: Reflections on Flipping Art History* (43:28)
  Kelly Donahue-Wallace, PhD. Professor at University of North Texas
  http://www.pearsoned.com/events/a-class-on-its-head-reflections-on-flipping-art-history/
- *Improving Art History with Active Learning Methods* (34:57)
  Virginia B. Spivey, PhD. Independent Art Historian and Educator
  https://www.youtube.com/watch?v=OCWpvKqyPaw

What Worked

- *Flexible Group Work.* Students could work in groups or alone, could form new groups each week. With a large class, encouraging small groups helped me manage the content and time more effectively. Allowing students to choose their groups and move in and out of groups worked well. I was aware of only one group conflict all semester.
- *Poster session for mid-term.* Students practiced articulating research topic, sources, initial findings, and proposal for final project. Introduced students to the concept of the research poster.

What Didn't Work

- Some activities (like a class-created time line) were *too chaotic.* Students couldn't see the objective in the results. Herding 57 students was like herding cats. Balance flexibility with organization.
- I didn't do any in-class lectures after day one. In a survey, almost 50% of students reported *they'd have liked a short lecture* to reinforce the reading and connect it to the activities.
- I thoughtfully paired content and activities, but *didn't allow students to check understanding or evaluate learning.* Some activities were seen as "busy work" or too much like a "craft project."
- *Students didn't know enough about contemporary work, and felt frustration* "waiting until the end to get to the good stuff." Cover contemporary design first, go back to 3700 BCE and move forward again. Every week, we can look for repeating patterns, themes, and so forth.

11 Teaching the Humanities through Topic-Based Critical Form-Making

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Abstract
This case study presents a communication design course intended to explore humanities topics through a process of research, critical thinking and design form-making. The main objective of the course is to teach students a design-centric approach to humanities research in which they synthesize multiple sources of information and create design work with distinctive viewpoints. Unlike traditional humanities research, the outcome is not in the form of writing, but rather design.

The pilot course explored the topic of digital data collection over an entire semester. The students were tasked to create content for an offset-printed two-color publication that was distributed at the final class. The course was structured as a collaborative design studio. The professor acted as creative director and editor. Students were assigned readings and other reference to inform discourse and inspire design work. They were given autonomy to develop unique research and design output. Progress was reviewed and critiqued weekly in class. All files and sources where shared and collaboration was encouraged.

The inherently narrative-based structure of creating content for the publication proved to be a valuable platform for design students to develop critical-thinking skills and learn deeply about the issue through design. Over the course of the semester, specific strategies emerged for successful content creation. There was a dynamic relationship established between formal exploration, critical reflection, and research synthesis that should be of interest from both the perspective of topic-based learning in the humanities and design education.

Teaching the Humanities through Topic-Based Critical Form-Making
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Introduction
During Spring of 2015, I taught an undergraduate graphic design in the Art Department at Queens College, City University of New York. The course critically explored the topic of digital data collection through a process of design research, critical thinking, and critical making. The final deliverable was a zine designed collaboratively by the class. One objective of the course was to teach students a design-centric approach to humanities research involving synthesizing multiple sources of information and creating design work with distinctive viewpoints.

Context
The course was structured as a collaborative design studio. The idea was to mimic the structure of a professional design environment. In this scenario, the instructor acts as the designer and students acted as designers. Students work as a team on a single project for the semester. The focus was on delivering a printed publication at a set deadline (at the end of the semester), and the duration of the semester was spent using design process to reach this goal. This differed from other design courses by being a less-structured environment. Student designers were given a large degree of freedom and autonomy to make unique, creative work. As the design director/instructor I offered inspiration, guidance and structure. I scheduled presentations and key deadlines, but largely stayed out of the way and let the students explore their own creative process in depth. I also led by example by designing and presenting my work at different points in the process. Rather than a series of clear steps I offered a design brief, suggestions, resources, and time to deep dive. I also created an environment to facilitate collaboration and sharing.

Format
The format of deliverable design was a zine. A zine is commonly defined as an independently published, small circulation edition. They are known for being cheaply produced. They are often made by hand using a photocopier. Since zines are independently produced, the content is inherently open, and uncensored. By nature, zines tend to express the author's unhindered creative expression and point of view. Unlike other design projects, there are no clients and no censorship considerations related with creating work for a client.

Constraints
This project was very open project with a few key constraints. Format constraints for the project were defined by budget and available options. Specifically, the constraints were a 48 page, 2 color offset-printed 8 inch by 10 inch print publication. The content restraints were set by the topic which was digital data collection. I gave students resources and pointed the way when needed, but students were responsible to come up with the ideas and generate the work. Finally, a conceptual constraint involved the mindset of criticality.

Criticality

My initial point of departure for creating a critical lens to approach our topic was the work of Fiona Raby and Anthony Dunne, who are know for using product design, "as a critical medium for exploring the implications of new developments in science and technology." (Dunne, Raby, 2013)

However, being situated in a graphic design program in an art department, I explored approaches to critical design in the context of graphic design rather than product design. This led to a different approach. Through practice in the classroom, a process for critical graphic design emerged.

The mindset defined for critical graphic design incorporated three basic interrelated principles: point of view, criticism, and authorship. In this context, all output is inherently imbedded with a point of view. A process of making, research and critique reveal and develop points of view. Furthermore, one point of view is, by nature, positioned in opposition to other points of view and is inherently critical. At the core of this is authorship. Designers are creating content as well as form.

Critical Graphic Design Process

Through practice over the course of the semester, a process for practicing critical graphic design emerged. The process involves engaging in research, critique, and making. It is non-linear. Practitioners were free to start and proceed with any of these three areas of practice.

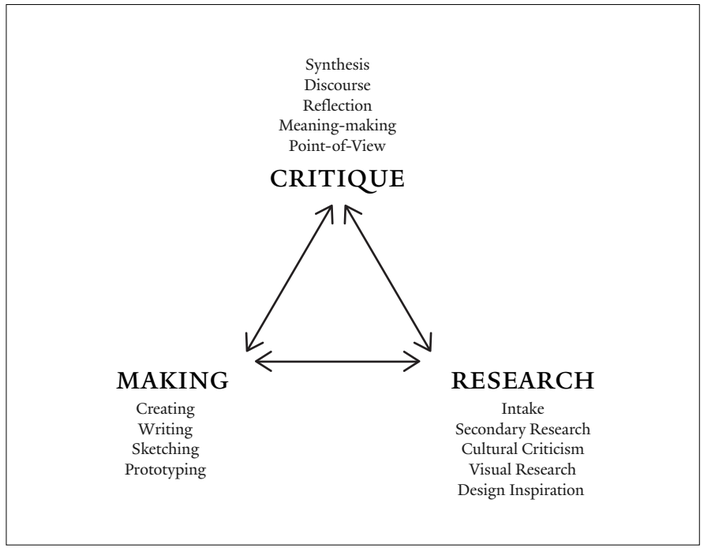

Figure 1

Key aspect to the project emerged at hybrid points with in the process. Hybrid points being the area between any of the three areas of practice: critique, research, and making. They include the designer's ability to synthesize, establish a point of view, have authorship, and implement abductive reasoning.

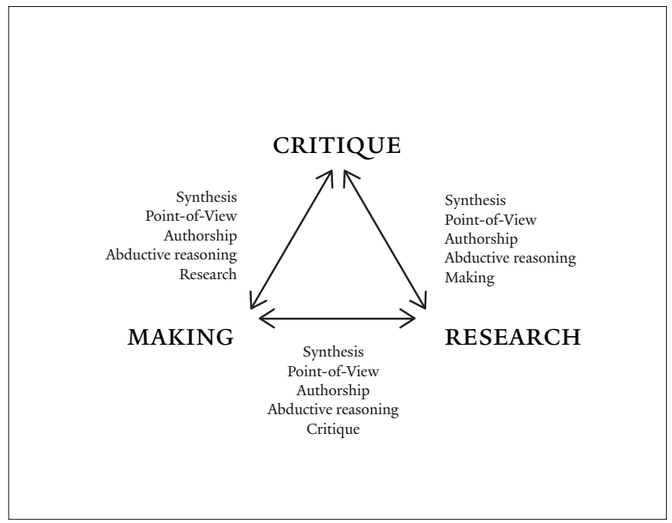

Figure 2

Critique

In the context of the design studio and specifically this project, critique is in-process feedback and reflection. This is practiced formally and collaboratively in groups. It is also practiced individually. This is the process in which designers make connections between the work, the topic, outside knowledge, individual worldview, and the worldview of others. When applied to research, critique leads to establishing individual points of view. When applied to the design making, critique illuminates points of view and meaning embedded in the work.

Research

In this course, research consisted of secondary sources with an emphasis on editorial and critical writing about the topic. The reason for this is that such pieces contain strong established points of view from authors. Through engaging with secondary research, participants came to understand multiple established arguments and viewpoints, and came to establish their own place within the discussion.

Making

For this project making is largely intuitive and action-based. Participants start with rough sketches and develop the work before engaging in a complimentary process of critique and/or research. As a mentor, my roll was to point students in directions when neeeded, and gave them the time to deep-dive.

Strategies
Through practicing this process of critique, research and making strategies emerged: specificity, visual storytelling, show and tell, and interrogating a topic through form-making.

Specificity
At the outset of the project, designers presented work that was mostly over broad and didactic in nature. As a result the messages coded in the work were obvious and uninteresting. Keeping in mind that this is graphic design for a print publication, the work involved words and visual signs. Light research led to vapid making.

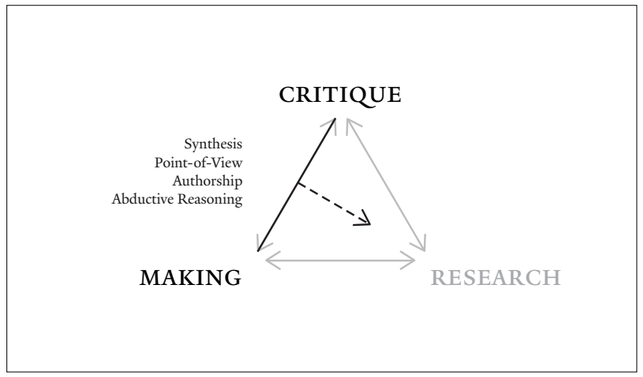

Figure 3

Critique of the work led to more research (Figure 2). Within the research, designers found interesting content that could better anchor their work. Designers realized that they needed to learn more about the topic. Rather than try to sum up the very large and broad topic with a single phrase and few visual signs they would focus on communicating something specific.

For example, see the work of Miryam Merkin (Figure 4). Rather than say a broad didactic statement such as, "we are being watched", her work communicates a more specific and complex message — that the metadata that the government and large corporations routinely collect tells detailed stories about people. Through a process of research, synthesis and ideation she also establishes a visual approach that takes cues from the relational diagrams commonly seen in television cop dramas.

Visual Storytelling
The ability of a graphic designer to use typography and imagery to communicate messages is a primary skillset of the practice. From a formal perspective, the roll of the graphic designer is frequently to present complex information clearly and simply. The designer is also tasked with creating work that favors complexity over clarity when appropriate. It is within this primary roll of the designer that she must navigate the visual terrain between clarity and complexity. The term visual storytelling, used in the context of the graphic design studio, highlights the narrative component of this process of communicating messages.

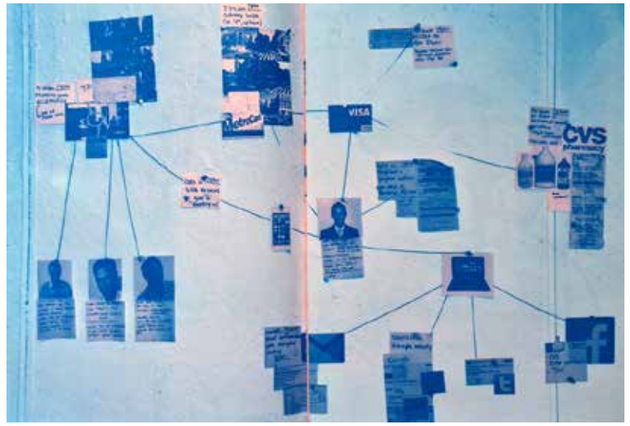

Figure 4

For this project, visual storytelling emerged from the critical graphic design process as a strategy to create content for the zine. When using this method, students could use the reflective practice of critique to identify compelling narrative from less compelling narrative early in the process by using basic sketches and oral or written storytelling. Something complex enough to involve verbal communication of more than a few sentences was often specific and interesting. As a result, interesting work emerged.

Visual storytelling was used by designer, Kelly Fernandez, for her multi-page contribution to the zine titled, "What's the Big Deal About Big Data?" (Figure 5). For this piece, the designer takes a relatively large and complex topic and created a simple and delightful overview intended to educate people with little or no understanding of the topic. To do this, the designer creates a time-based narrative complete with setting and characters.

Figure 5

Figure 6

Figure 7

Figure 8

A less linear and pictoral approach to visual storytelling is employed by designer, Yvette Deane. Here a flow diagram tells leads viewers through a series of decisions that exposes Facebook's manipulative user experience and how difficult it is for users to opt out of the experience (Figure 6).

Show and Tell

The strategy of Show and Tell involves simply present something interesting from the research to your audience. This involves an intuitive internal process of curiosity and identifying what is compelling from the designer's individual point of view. This strategy keeps the content presented specific. What the designer chooses to include or exclude presents point of view and is, by proxy, a political act.

See Figure 7 for an example of this strategy in use. Here the designer simply lists the list the reason the US government has frequently used to justify spying on its citizens en mass. In Figure 8, the designer asked users what website they spent the most time on and photographed them with the site projected against them.

Interrogate the Topic through Form-Making

Interrogating a topic through form-making is a process of "thinking with your hands"; a term used by IDEO founder David Kelley to describe prototyping (Tischler, 2009). For this project, this meant engaging in a process of creative play in which designers created form without being as overtly concerned with distilling a specific, predetermined message. Instead, the designer creates the message formally and visually. The meaning of the work is determined by the layout. The proximity of symbolic imagery to each other creates dialectical relationships that the viewer mustdecode. This work is often more complex and can contain multiple meanings.

In the context of the critical graphic design studio, research involves cataloging visual imagery related to the topic and creating a kit-of-parts with the imagery. During the process of making, this imagery is drawn from to create various layouts. The meaning of the work is developed later through the process of critique (Figure 9).

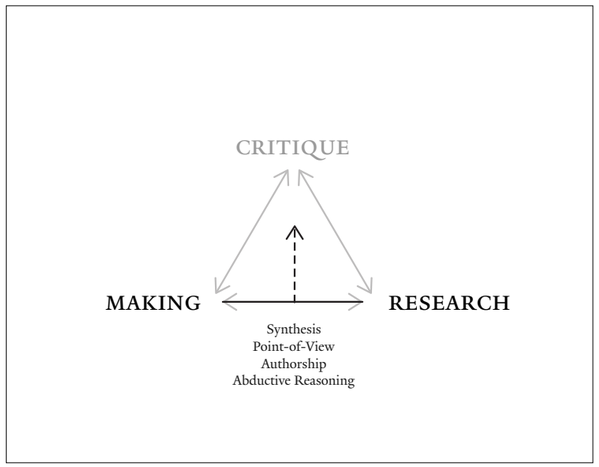

Figure 9

Figure 10

This strategy for creating critical graphic design draws ideas from presented by Roland Barthes in his essay, Death of the Author, in which he states, "To give a text an Author is to impose a limit on that text, to furnish it with a final signified, to close the writing" (Barthes, 1977).

For an example of this strategy in practice, see Figure 10. This piece explores concepts of technological singularity, and presents a world where we are controlled by machine intelligence.

Conclusion

This course offered a design-centric approach to humanities research in which students synthesized multiple sources of information and created design work with distinctive viewpoints. The fact that it was a semester-long project with a single topic of inquiry allowed the designers more time to research, synthesize and create content. This seems to have led to both stronger design form-making and stronger skills associated with writing-based humanities research such as critical thinking. Furthermore, the process yielded a repeatable process and strategies for engaging in critical graphic design practice.

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12 Beyond Graduation: The First Two Years

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Abstract

Beyond Graduation: The First Two Years presents the findings of an on-going longitudinal study of one graduating class from a graphic design undergraduate degree program within a large, public New York City college. The study seeks to determine what factors influence the ability of graduates to embark successfully on careers as graphic designers. Through an initial survey and three subsequent surveys over a two year period, it looks at correlations between career success and characteristics such as gender, age, ethnicity, immigrant status, first generation to attend college; and activities within college, including employment while pursuing degree, grade-point average, number of years to complete college, number of colleges attended and participation in internships.

The preliminary results of the study reveal the complex and fluctuating nature of employment for fledgling graphic designers. Graduates who find employment are likely to spend at least a year in their search and cite a need for a multi-faceted approach towards careers, often juggling work (permanent, contract and freelance) with additional course work, internships, self-initiated entrepreneurial ventures and volunteer activities to bolster skills and portfolios. This study finds, that individuals who start building job related experiences while in school, find work at a faster rate than their peers. A key barrier to careers in the field was a lack of financial resources and networks of support that enable individuals to pursue low or unpaid roles to gain work experience during the first year after graduation.

This presentation compares the results of *Beyond Graduation* with a larger study *(Creative Graduates, Creative Futures)* conducted in the United Kingdom and proposes further research questions relevant to design education.

Beyond Graduation: The First Eighteen Months

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Keywords: Graphic design; Higher education; Career pathways; Employment studies; Communication design; Longitudinal Study

INTRODUCTION

Steven Heller (2005) estimated that as many as half of recent graduates with graphic design degrees quit the field within one year of commencement and posed the question--*Is the fallout due to design programs graduating too many students who lack the competencies for gainful employment in the field or is there simply a glut of graduates relative to the number of entry-level positions?*

Since the writing of the article, design programs in United States have surged in growth--both in the numbers of students graduating with graphic design degrees and the numbers of new undergraduate graphic design programs. Between the years 2006 and 2010, there was a 57% increase in the number of graphic design graduates and a 66% increase in college- level graphic design programs ("Career Index," 2016). The Center for an Urban Future (2012) reports that New York City graduates twice as many students in design and architecture as any other city in the United States, and enrollment at New York's design colleges and universities has been growing at a faster rate than in other schools and programs in the metropolitan area.

There is currently a lack of empirical research that provides insight to the outcomes of graphic design graduates in United States. *Beyond Graduation* is an on-going longitudinal study that tracks students for two years after receiving baccalaureate degrees in graphic design from Queens College, City University of New York. The study seeks to determine what factors influence the ability of graduates to embark successfully on careers as graphic designers. The study looks at correlations between career success and characteristics such as gender, age, ethnicity, immigrant status, first generation to attend college; and activities within college, including employment while pursuing degree, grade-point average, number of years to complete college, number of colleges attended and participation in internships

Through an initial survey and three subsequent surveys over an 18-month period, *Beyond Graduation: The First Eighteen Months* presents results based on the survey responses of one graduating class of seniors (Spring, 2014) of the Queens College graphic design program. The preliminary results of the study reveal the complex and fluctuating nature of employment for fledgling graphic designers. Graduates who find employment are likely to spend at least a year in their search and cite a need for a multi-faceted approach towards careers, often juggling work (permanent, contract and freelance) with additional course work, internships, self-initiated entrepreneurial ventures and volunteer activities to bolster skills and portfolios. This study finds that individuals who start building job related experiences while in school find work at a faster rate than their peers. A key barrier to careers in the field was a lack of financial resources and networks of support that enable individuals to pursue low or unpaid roles to gain work experience during the first year after graduation.

BACKGROUND

Queens College, CUNY

Queens College, located in the borough of Queens in New York City, is one of the senior colleges of the City University of New York. There are over 20,000 matriculating students, with roughly two-thirds of them being full-time. The undergraduate ethnic breakdown is: White: 46.2%, Asian-Pacific Islander: 25.6%, Hispanic: 18.6%, and Black: 9.4% ("QC at a Glance," 2015). Many are the first in their families to seek a college education or aspire towards a white-collar career. At the college, 77% of students receive some form of financial aid.

About the Graphic Design Program at Queens College, CUNY

In 2005, Queens College created a Bachelors of Science of Graphic Design degree that quickly grew from twenty declared majors in the first year, to more than 300 declared majors in 2014. At the time of initiation of this study, the Graphic Design major required 54 credits and was an open enrollment major.

Creative Graduates Creative Futures

Creative Graduates Creative Futures (L. Ball, E. Pollard & N. Stanley, 2010) is a major longitudinal study undertaken between 2008 and 2010 of the career patterns of graduates in art, design, crafts and media subjects qualifying in 2002, 2003 and 2004 from 26 UK higher education institutions. Research from this publication, as it pertained to graphic design, informed this study particularly in regards to consideration of employment levels and factors that affect career patterns.

METHODOLOGY

Survey Process

The research project was introduced and initial survey disseminated during the capstone course of the graphic design degree, Senior Portfolio. Students who decided to participate in the study were paid a stipend of ten dollars for the completed initial survey, and twenty dollars for each subsequent survey. Subsequent surveys were delivered through email every 6 months.

Through the initial surveys, students were asked to supply the following information: gender, age, ethnicity as listed on college applications, country of birth, length of time residing in the United States, number of years in college, number of colleges attended, acquisition of an associates degree or second baccalaureate, financial aid within college, number of hours worked while attending school and type of employment while attending school, grade point average (GPA) within the major and for the overall degree, parents' history of college, and participation in graphic design internships while in school (See APPENDIX A). Additionally, students were asked for contact information, a rating of the college and the program, the type of work they would seek upon graduation, their level of preparedness to enter the field, and whether there were particular challenges affecting academic success while in school.

Subsequent surveys asked graduates' employment status and design related activities pursued (internships, additional coursework, graduate studies, freelance and pro bono design and self-initiated projects). Data from surveys were extracted to determine employment levels. Factors relating to graduate employment levels where ascertained through chi-square tests, one-way ANOVA tests and the Pearson correlation formula as appropriate to the type of data retrieved (See APPENDIX B).

RESULTS

Initial Survey

Thirty-seven students (90%) graduating in the spring semester of 2014 completed the initial survey. The average number of years in college was 4.59 years (SD = .93) and approximately three quarters of students (70.3%) received financial aid while in college. Approximately half (51.3%) had transferred into Queens College from a community college and a quarter (24.3%) had completed an Associates degree. The majority (97.3%) of students intended to pursue careers in graphic design upon graduation, and most (86.5%) felt equipped to enter the job market.

Table 1 (See APPENDIX A) shows the personal characteristics of the cohort gathered from the original surveys including Gender, Ethnicity, Age, Country of Birth, Parental Higher Education Experience, Grade point averages, Number of Hours Worked, and Participation in Design Internships.

Background characteristics

Gender and Ethnicity
The majority (67.6 %) of the cohort were female and the ethnicity as identified on college applications of the cohort is as follows: Asian (51.4%), White (24.5%), Hispanic (21.6) respondents, and Black (2.7%). As Figure 1 shows, the ages of the cohort ranged from 21 to 56 years old at graduation, but the majority of students were in their early twenties at the time of graduation.

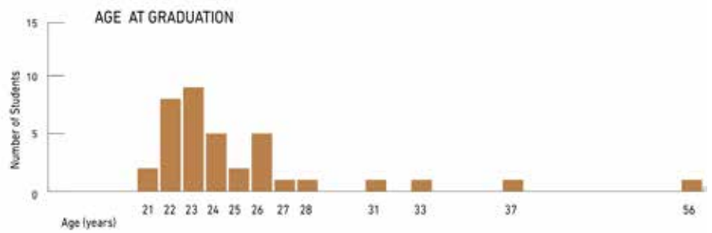

Figure 1. Age at Graduation (*N* = 37; *M* = 25.3, *SD* = 6.15, Mode and *Mdn* = 23.

Country of Birth
Approximately two–thirds of the cohort (62%) was born in countries other than the United States. Figure 2 shows the country of birth for all respondents. The length of time in United States for students born elsewhere ranged widely, from the majority of their lives to primarily the years spent in college.

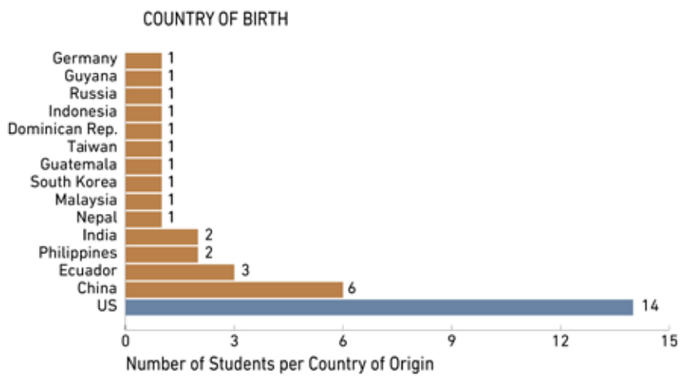

Figure 2. Students Born in the United States and elsewhere (N = 37).

Parental Experience of Higher Education (HE)
The initial survey revealed that over half (56.8%) of the students within the cohort were the first generation in their families to undertake a college level degree. Approximately one quarter (24.3%) of the cohort responded that both parents had graduated from college and the remaining students reported at least one parent attended or graduated college

Grade Point Average (GPA) within College
As Figure 3 shows, the GPA of the major tends to be higher than GPA earned for the overall degree and the sets of the GPAs are almost parallel. Students with high overall GPAs tend to have high GPAs within the major. A greater divergence between the sets occurs in the lower range of GPAs, with the GPAs of the major consistently higher than the overall GPA of the degree.

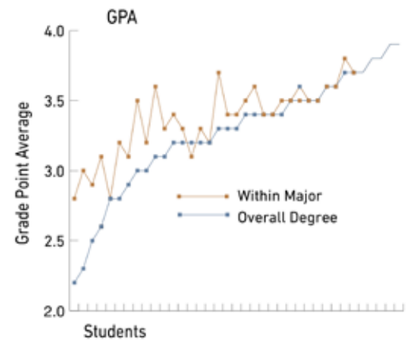

Figure 3. Grade Point Averages (GPA) within the overall degree and within the Graphic Design major. The mean GPA of the cohort was 3.27 (SD = .29) and 3.41 (SD = .42) for the overall degree and Graphic Design major respectively (N = 37).

Financial Aid & Employment
The majority of respondents (70.3%) received financial aid while attending college. Approximately four out of five students (78.4%) worked while pursuing an undergraduate degree. Over one half (59.4%) of students worked 20 or more hours per week. A number of students (16.2%) maintained a full-time work schedule (30 + hours/week) while attending college. None of the jobs held were related to graphic design.

Internships
Approximately one quarter (24.3%) of the students participated in a graphic design internship while in college. Almost half (44.4%) the students who participated in internships within college were school-sponsored internships funded by CUNY Workforce Development Initiative. The remaining internships were opportunities students found through independent searches.

Subsequent Surveys
Subsequent surveys were sent in November 2014 (62.2% response rate), June 2015 (59.5% response rate) and November 2015 (86.5% response rate). Survey questions sought to determine employment levels within the field, activities that graduates pursued to find employment or strengthen skill sets, and challenges that graduates encounter in their pursuit of careers within graphic design.

Employment levels were categorized as the following activities:

- **Level 4:** Full-time graphic design employment (either permanent or contract).
- **Level 3:** Part-time graphic design employment (permanent, contract or multiple paid freelance projects).
- **Level 2:** Employed in other fields but pursuing self-initiated projects, entrepreneurial ventures, additional course work in graphic design, or pursuing occasional freelance design projects or short term paid internships while employed in another field.
- **Level 1:** Unemployed, or employed in fields unrelated to degree with no indicated activity within the field of graphic design.

Table 1 shows the employment levels of survey respondents 6 months, 12 months and 18 months after graduation and reflects a trend or most of graduates migrating towards fulltime or part-time employment, and a few exiting the field.

Table 1.

Employment Levels Over Eighteen Months

Employment	NOV 2014	Percent	JUN 2015	Percent	NOV 2015	Percent
Level 4	6	26.1	8	36.4	14	43.8
Level 3	1	4.3	5	22.7	5	15.6
Level 2	15	65.3	8	36.4	8	25.0
Level 1	1	4.3	1	4.5	5	15.6
Total	**23**	**100%**	**22**	**100%**	**32**	**100%**

Table 1

As Figure 4 shows, there is a great deal of movement between the levels over the eighteen months of the study. Six months after graduation most respondents were employed (95.7%), but primarily in fields other then graphic design. Often graduates kept the jobs they had while attending school, but pursued design related activities such as internships, pro bono design projects or additional course work. Approximately one third of the cohort had found graphic design employment (26.1% full time and 4.3% par-time). Only one respondent (4.3%) was unemployed.

Twelve months after graduation all but one of the respondents were employed (95.4%) and primarily in design related employment (36.4% full-time and 22.7% part-time). Graduates who had found design related employment reported additional design related activities beyond the job, such as freelance projects and additional course work. Over a third of the cohort (36.4%) who had not found design related employment reported design related activities such as internships, pro bono design projects, self initiated projects or additional course work/graduate studies.

Eighteen months after graduation showed the same percentage of graduates employed within design (59.4%), but with a greater number of respondents employed full time (43.8%) compared with part-time employment (15.6%). Two respondents were unemployed (6.25%) and three employed respondents (9.4%) had ceased pursing any type of design activities. A quarter (25%) of the respondents were employed but pursuing design related activities such as self initiated projects (magazines and graphic novels), entrepreneurial ventures (design and development of apps), graduate studies in a related field, and occasional freelance projects.

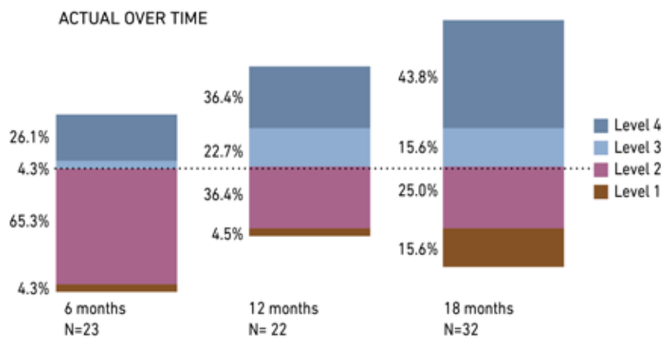

Figure 4. Employment Levels of Cohort Over an 18-month period.

ANALYSIS

Statistical analysis through the chi-square and one-way ANOVA tests were utilized to assess correlations between factors identified in the initial survey and employment levels at 18 months (See APPENDIX B). Of all the factors assessed, only three factors were deemed statistically significant in relationship to subsequent employment levels: Country of Birth, GPAs, and Participation in Design Internships.

Country of Birth

A chi-square test of independence was performed to examine the relation between US born citizens and employment levels. The relation between these variables was found to be significant, $\chi 2$ (3, N = 32) = 10.76, p >.05. As Figure 3 shows, graduates born in countries other then the United States secured permanent employment in the field of design at higher rates then graduates born in the United States.

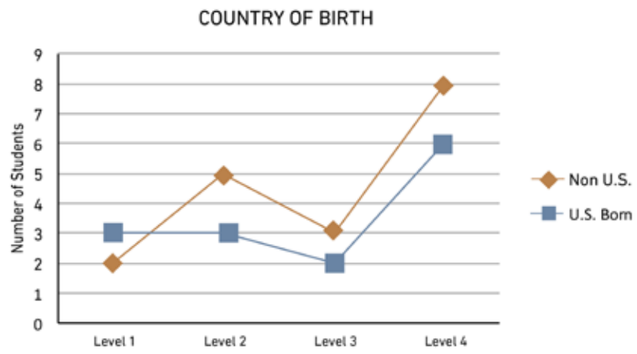

Figure 5. U.S. Born (Series 2) and Non U.S. Born (Series 1) Employment Levels, 18 Months After Graduation.

Grade point averages

The one-way ANOVA was conducted to compare the mean GPA between the student's employment levels and to determine whether any of those mean GPA are significantly different from each other.
An analysis of variance showed that the effect of overall GPA was significant, F (3.28)=4.62 p = .0095. The same test was applied to the effect of the GPA within the major and employment levels. An analysis of variance showed that the effect of overall GPA was significant, F (3.28)=4.62 p = .0099. As Figure 6 shows, there is a slightly greater distinction between higher GPAs and higher employment levels, than found in the relationship between major GPAs and employment levels.

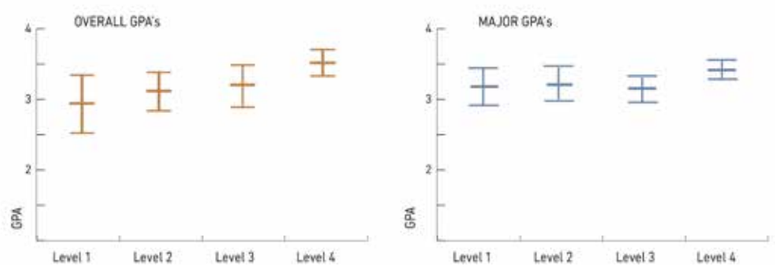

Figure 5. Overall GPAs (left) and Major GPAs (right) of employment levels, 18 months after graduation.

Design Internship

A chi-square test of independence was performed to examine the relation between participation in a graphic design internship and subsequent employment levels. The relation between these variables was found to be significant, $\chi 2$ (3, N = 32) = 16.843, p < .01. Of all the factors assessed, the participation in a design internship had the strongest relationship to subsequent employment levels.

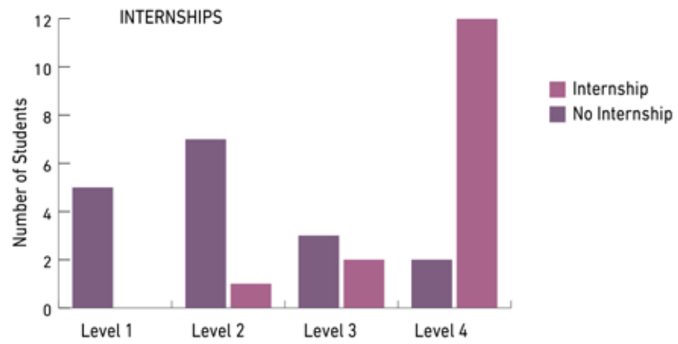

Figure 6. Participation in design internships and employment levels, 18 months after graduation.

Comparison with Other Studies

At 18 months, research from *Beyond Graduation* approximates findings of larger studies. As Table 2 shows, the level of unemployment of the cohort (6%) is higher than the unemployment reported by graphic design graduates of the Creative Graduates study (L. Ball, E. Pollard & N. Stanley, 2010), but lower than the national unemployment rates (7.2%) for recent college graduates from the same year (Economic Policy Institute) as the cohort in this study. The permanent (graphic design or related fulltime and part-time employment) of the cohort is slightly lower than the percentage reported by the Creative Graduates study and slightly higher than the estimate cited in Steven Heller's article, *Too Many Grads or Too Few Competencies* (2005).

Employment within Level 2 is the most difficult to gauge as it includes freelance and self-initiated projects, entrepreneurial ventures, and graduate/advanced coursework—activities that may ultimately lead to generation of income. It is interesting to note that at 18 months the percentage of graduates (25%) who fall within Level 2 is approximately the same as the percentage of respondents from the Creative Graduates study that identify as self-employed. Additionally, the Economic Policy Institute (2015) reports that 14.9% of recent college graduates are underemployed one year after graduation, employed in low-skilled jobs that are unrelated to their college degrees.

Table 2

Comparison of Beyond Graduation Results with Existing Research

	Beyond Graduation	Creative Graduates	National
Unemployment	6%	4.8%	7.2%
Freelance, Other	25%	26.3%	14.9%
Permanent Employment	55.9%	63%	50%

Table 2

CONCLUSION

At the time of this paper, *Beyond Graduation* achieves a small, but potentially representative, sample of graphic design graduates' career patterns. Contrary to Steven Heller's (2005) estimation that half of graphic design graduates leave the field within one year of graduation, this study reveals that the majority of graduates (84%) are actively pursuing careers in the field through fulltime or part-time employment (55.9%), or design related activities (25%) one year plus after graduation. Consistent with the larger study,

Creative Graduates, this study shows that graduates juggle multiple actives (internships, freelance, additional course work) after graduation, and even after permanent employment is secured.

Factors and Subsequent Employment Levels

The study assessed a variety of factors found three to be statistically significant in relationship to employment levels in this cohort—country of birth, GPAs, and participation in design internships. The study finds that students born in the U.S. are finding lower levels of permanent employment within the field of graphic design then students who were born in other countries. This may an anomaly due to the small sample size, but will be continued to be assessed in the next phase of this study.

Overall GPA of the degree and GPA of the major are strongly correlated with one another, and statistically both reveal a relationship with subsequent employment levels after graduation. Students with high GPAs in the overall degree, tend to have equivalent grades within the major, whereas students with low GPAs within the overall degree tended to maintain higher GPAs within the major. This could be due to a variety of reasons—inflation of grades within the major, a lack of concern with liberal arts courses for students pursuing graphic design, lack of preparation for liberal arts courses within high schools, or language barriers for newly arrived students. Graduates with higher overall GPAs securing employment at higher levels could indicate that these students are simply stronger candidates for employment, or that employment in the field today requires skills typically associated with liberal arts coursework in addition to strong portfolios.

The factor that had, overwhelmingly, the strongest correlation with levels of employment was the participation in a design internship. The study found that graduates who have not participated in a design internship in college, for the most part, needed to obtain an internship/s after college before finding part-time or full time employment within the field. Respondents reported that many internship opportunities, particularly in large agencies, were closed to applicants who could not receive college credit, placing students who forgo internships within college at a disadvantage.

Although the study found employment levels statistically independent of hours worked in college; this paper notes that *all of the students who did not work* while in college are currently employed permanent positions in graphic design, suggesting financial support during and after college that facilitated students' efforts to excel in coursework (as demonstrated by high grade point averages) and through a period of unpaid or low-paid internships after graduation.

Career Patterns

The first wave of graduates who found work within the first six months of graduation is revealing of the factors and qualities that predict early success in establishing careers within the field of design, and the emergent career patterns of newly minted graphic designers. All had participated in a design internship within college and possessed high GPAs both in the degree and major. Country of birth was not found to be a related to employment levels with the first wave.

Dispelling the assumption that design internships are valuable, primarily, because they evolve into full time employment, this study found that only one of these graduates transitioned from intern to full time employee within the same company. At 18 months all of these graduates have either changed jobs for greater opportunity or been promoted, suggesting strong motivation, and opportunity, for advancement at early stages of careers and a willingness to encounter risk. All report additional freelance projects in addition to their full time employment and half report additional coursework after graduation to advance their skill-set.

The majority of graduates of this cohort did not find employment within the first six months, but did pursue an array of design related activities (internships, additional coursework, paid and pro bono design projects, entrepreneurial ventures) categorized as Level 2. Over the 18 months the study, the category of Level 2 has shrunk as graduates find permanent employment in graphic design (Levels 3 or 4) or cease activities related to graphic design (Level 1). The category of Level 2 is the most difficult to gauge in a two

year period as entrepreneurial and self initiated projects are included within the category and may require several years of incubation before activities are equated with income. Graduate studies typically require two to three years before employment levels may be gauged and individuals with multiple freelance projects may ultimately evolve into a business. It is interesting to note, that at the time of this paper, most graduates categorized as Level 2 are maintaining the same jobs held while in college.

Competition was the most oft cited challenge to securing design related employment by respondents. On-going medical issues and relocation to an economically depressed area were cited as the reasons for those respondents experiencing unemployment at the time of the study. Of note, motherhood seems to add an additional barrier to design related careers; the two mothers within the study referenced the need for part-time work or flexible hours. Respondents who have left the field for other types of employment cite the need to generate income and establish job security. Low-income students, without on-going financial support after graduation, are hard-pressed to find employment quickly and may be the first to stop searching for employment related to their degrees.

Future Research

The preliminary results suggest that students, who start building job related experiences while in school, find work at a faster rate, and at higher levels, than their peers. For students who do not have networks of financial support after college, gaining these work related experiences within school might prove the single most important factor towards abilities in forging careers in graphic design. Additionally, the preliminary results suggest that employment, whether by desire or necessity, is composed of a mix of permanent, temporary, freelance and entrepreneurial; requiring a multi-faceted approach to careers and often the need to incorporate multiple streams of income. This study will continue to collect one more set of surveys from this cohort and has initiated retrieving data from two recent graduating classes (Dec. 2015 and June 2016) to determine if these factors are consistent over time and with new cohorts.

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APPENDIX A. Profile of Cohort

Table A.1

Personal Characteristics of Cohort

		Number	Percent
Gender	Male	12	32.4
	Female	25	67.6
	Total	37	100%
Ethnicity (college app)	Asian	19	51.4
	White	9	24.3
	Hispanic	8	21.6
	Black	1	2.7
	Total	37	100%
Age (at graduation)	22 or younger	10	27.0
	23 or 24	14	37.8
	25 or 26	7	19.0
	27 or 28	2	5.4
	31-33	2	5.4
	37	1	2.7
	56	1	2.7
	Total	37	100%
Country of Birth	US	14	38
	Other	23	62
	Total	37	100%
Parental HE experience	Neither Parent Attended	21	56.8
	One Parent Attended	4	10.8
	One Parent Graduated	3	8.1
	Both Parents Graduated	9	24.3
	Total	37	100%
Overall GPA	3.7 or higher	7	18.9
	3.5-3.69	6	16.2
	3.3-3.49	8	21.6
	3.0-3.29	9	24.3
	2.7-2.99	3	8.1
	2.4-2.69	2	5.4
	2.0-2.39	2	5.4
	Total	37	100%
Major GPA	3.7 or higher	8	21.6
	3.5-3.69	11	29.7
	3.3-3.49	8	21.7
	3.0-3.29	7	18.9
	2.7-2.99	3	8.1
	Total	37	100%
Hours Worked	0	8	21.6
	1-10	2	5.4
	11-20	13	35.2
	21-30	8	21.6
	31-40	5	13.5
	40+	1	2.7
	Total	37	100%
Design Internship	No internship	28	75.7
	Internship	9	24.3
	Total	100	100%

Table A.1

APPENDIX B
Statistical Analysis of Factors on Employment Levels

Table B.1.

Gender and Employment Levels, 18 months (N=32)

Employment	Female	Male	Total	Expected
LEVEL 1	4	1	5	0.1562
LEVEL 2	4	4	8	0.25
LEVEL 3	5	0	5	0.1562
LEVEL 4	10	4	14	0.4375

A chi-square test of independence was performed to examine the relation between gender and employment levels. The relation between these variables is non-significant, χ^2 (3, N = 32) = 4.015, p >.05. For example, out of the 14 have who have full time jobs, 10 are female and four are male which is very close to the percentage of females and males in the cohort.

Table 2.

Ethnicity and Employment Levels, 18 months (N=32)

Employment	Asian	White	Hispanic	Black	Total	Expected
LEVEL 1	3	1	1	0	5	0.1562
LEVEL 2	2	2	4	0	8	0.25
LEVEL 3	2	0	2	1	5	0.1562
LEVEL 4	9	4	1	0	14	0.4375

A chi-square test of independence was performed to examine the relation between ethnicity (as listed on college application) and employment levels. The relation between these variables was found to be non-significant, χ^2 (9, N = 32) = 12.88, p >.05. For example, out of the 14 who have found full time employment, 9 are Asian, which is approximately what would be expected by the distribution of Asians within the cohort.

Table 3.

ANOVA Table of Age and Employment Levels, 18 months (N=32)

Source of Variation	*d.f.*	*SS*	*MS*	*F*	*p-level*	*F crit*	*Omega Sqr.*
Between Groups	3	59.465	19.821	1.689	0.192	2.946	0.061
Within Groups	28	328.503	11.732				
Total	31	387.968					

The one-way ANOVA was conducted to compare the mean age between the graduates' employment levels and to determine whether any of those mean ages are significantly different from each other. An analysis of variance showed that the mean ages are not significantly different from each other per employment level, F (3,28)=1.426, p = .256.

Table 4.

Country of Birth (US or other) on Employment Levels, 18 months (N=32)

Employment	US Born	Born Elsewhere	Total	Expected
LEVEL 1	2	3	5	0.1562
LEVEL 2	2	6	8	0.25
LEVEL 3	4	1	5	0.1562
LEVEL 4	5	9	14	0.4375

A chi-square test of independence was performed to examine the relation between country of birth (United States or other) and employment levels. The relationship between these variables was found to be significant, χ^2 (3, *N* = 32) = 10.760, *p* < .05. For example, out of the 14 who have found full time employment, 5 were born in the United States, which is lower than what would be expected if there were no relationship between country of birth and employment levels.

Table 5.
Parents' Higher Education (HE) Experience and Employment Levels, 18 months (N=32)

Employment	Neither	One Parent	Both	Total	Expected
LEVEL 1	3	1	1	5	0.1562
LEVEL 2	4	0	4	8	0.25
LEVEL 3	3	2	0	5	0.1562
LEVEL 4	9	2	3	14	0.4375

Note: Neither = Neither Parent Attended College. One Parent = One Parent Graduated College. Both = Both Parents Graduated College. In this sample, there were no instances of a parent attending, but not graduating college.

A chi-square test of independence was performed to examine the relation between Parents' HE experience and employment levels. The relationship between these variables was found to be non-significant, χ^2 (6, *N* = 32) = 6.776, *p* > .05. For example, out of the 14 who have found full time employment, 9 reported that neither of their parents had attended college and 3 reported that both parents had attended college, which is approximately what would be expected from a random distribution.

Table 6.
ANOVA Table of Overall Grade Point Averages (GPA) and Employment Levels, 18 months (N=32)

Source of Variation	*d.f.*	*SS*	*MS*	*F*	*p-level*	*F crit*	*Omega Sqr.*
Between Groups	3.000	1.490	0.497	4.623	0.0095	2.947	0.254
Within Groups	28.000	3.009	0.107				
Total	31	4.49875					

The one-way ANOVA was conducted to compare the mean overall GPAs between the graduates' employment levels and to determine whether any of those mean ages are significantly different from each other. An analysis of variance showed that the mean overall GPAs are significant as related to subsequent employment level, *F* (3,28)=4.623 *p* = .0095.

Table 7.
ANOVA Table of Major Grade Point Averages (GPA) and Employment Levels, 18 months (N=32)

Source of Variation	*d.f.*	*SS*	*MS*	*F*	*p-level*	*F crit*	*Omega Sqr.*
Between Groups	3.000	0.755	0.252	4.583	0.0099	2.947	0.251
Within Groups	28.000	1.537	0.055				
Total	31.000	2.292					

The one-way ANOVA was conducted to compare the mean Major GPAs between the graduates' employment levels and to determine whether any of those mean ages are significantly different from each other. An analysis of variance showed that the mean major GPAs are significant as related to subsequent employment level, *F* (3,28)=4.583 *p* = .0099, but not as strongly associated as the overall GPAs with employment.

Table 8.
ANOVA Table of Hours Worked in College and Employment Levels, 18 months (N=32)

Source of Variation	*d.f.*	*SS*	*MS*	*F*	*p-level*	*F crit*	*Omega Sqr.*
Between Groups	3.000	696.979	232.326	1.426	0.256	2.947	0.038
Within Groups	28.000	4560.989	162.892				
Total	31.000	5257.969					

The one-way ANOVA was conducted to compare the mean hours worked in college between the graduates' employment levels and to determine whether any of those mean hours worked are significantly different from each other. An analysis of variance showed that the mean hours worked while in college are not significantly different from each other per subsequent employment level, *F* (3,28)= 1.426 *p* = 0.256.

Table 9.
Graphic Design Internship and Employment Levels, 18 months (N=32)
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Employment	Internship	No Internship	Total	Expected
LEVEL 1	0	5	5	0.1562
LEVEL 2	1	7	8	0.25
LEVEL 3	2	3	5	0.1562
LEVEL 4	12	2	14	0.4375

A chi-square test of independence was performed to examine the relation between participation in a design internship and employment levels. The relation between these variables is significant, χ^2 (3, *N* = 32) = 16.843, *p* < .01. As the table shows, 14 graduates out of the 19 graduates employed within Level 3 or 4 have participated in design internships, whereas none of the five graduates who are either unemployed or employed in fields other than graphic design participated in a design internship.

13 Designing Compelling Stories Online: Alternative Paths to Traditional Storytelling

M. Genevieve Hitchings
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Abstract
The web creates a unique forum for online storytelling, one well suited for explaining complex problems. Perhaps more so today than at any other time, there are excellent opportunities for illustrators, photographers, and designers to tell compelling stories online. While technology continues to evolve, the basic concepts of storytelling remain constant. The concept of a narrative implies there is a path to follow with a clear starting and end point. But with the fluid nature of the web there is opportunity for presenting content in ways that deviate from that norm.

As the interactive world becomes increasingly sophisticated so do such possibilities for presenting visual content in ways that offer alternative paths to traditional storytelling. We are seeing exciting developments in online newspapers and magazines as they experiment with interactive info-graphics and data visualization charts to communicate content.

As a designer, understanding the challenges and benefits of designing a linear story in a non-linear environment potentially increases opportunity for work in a wider array of outlets. Through a series of examples from both professional and student work, this paper and presentation will explore the unique possibilities for presenting clear, digestible bits of engaging information interactively that tell a story but differ from more traditional media such as books, magazines, or even movies, where content is structured with a clear beginning, middle and end, and the audience is passive (only their attention is required).

14 Ambiguity and Unpredictability as Educational Frameworks

Mitch Goldstein
Rochester Institute of Technology

Abstract
It is common for educators to create projects that tend toward predictable outcomes, and projects where students approach the brief using similar methods. While this kind of deliverable-oriented assignment is an important facet of how we teach design, the design process also begs for tangents, wrong directions, incorrect assessments, and silly diversions. With all the knowledge and skill designers acquire during and after their formal education, one of the most useful things to learn is learning what you don't know. Not only is this useful, it can be—and should be—a pleasure not to know.

As educators we need to help our students understand how to come up with new ideas, new approaches, and to create new relationships with design that long-established creative methodologies may not allow. This paper examines how educators can utilize ambiguity and unpredictability as a core framework of design education. Rather than creating projects that drive students towards predetermined goals, we can allow students to use the design process as a place of chance and discovery. Educators can develop assignments that force students to reconcile with the understanding that design is not a clear, simple line from A to B, but is a complex, circuitous route that is frequently surprising and diverges from where it started. Student projects, processes, and outcomes will be used as examples to clarify how these ideas can be used in the classroom.

15 Grafik Intervention: Sparking Urban Revitalization Efforts Through Graphic Design

William (Brit) Rowe
Ohio Northern University

Abstract
How can graphic designers use their skills and knowledge to draw attention to—and invoke a solution to—the problem of urban decay? How can they take responsibility and help rehabilitate those wounded environments?

Buildings that sit vacant for one or more years can become eyesores in any community and even bring down the value of properties surrounding them. In some situations, it is too costly to rehabilitate these spaces, causing developers to avoid them and leaving them susceptible to blight. This paper/presentation discusses how students in a senior level graphic design course designed a Grafik Intervention to bring awareness to an underutilized building and to inspire community members to consider the potential the building held.

The Grafik Intervention is an open source project that identifies a site based on its underutilized urban space and potential for revitalization. The building is carefully selected based on its notable history and location.

Along with the digital projections during the event, an historical exhibit was created to emphasize the significance of the building. The goal was to engage the public through visually dynamic and compelling communication methods. The projections were created to provide historical information in an urban context on the building after dark. Through the use of projected visuals and real-time discussions, printed questionnaires were used to elicit information from the general public as they walked or drove by the case study building.

16 Fashioning the Brand: The good, the bad and the beautiful of fashion advertising.

Ann Lemon
Kutztown University

Summer Doll-Myers
Kutztown University

Abstract
What does it mean to wear a label, a logo, a brand—across your chest or on your back pocket? Consumers, especially millennials, are becoming more invested in the brands they love by following, liking, and pinning products in addition to wearing them. The entire brand "story" is built from an archive of images that support an ongoing narrative. Fashion is a $1.2 trillion global industry according to a report from the U.S. Joint Economic Committee.

"Fashion apparel for the teenager is not the first considered purchase," Wissink said. Teens see electronics as "popularity devices, not utilities." —International Business Times

It isn't just about "did you see what he's wearing?" but more about "can you believe she still has an iPhone 4"?! Millennials are more skeptical about what they see as inauthentic or contrived messages.

The majority of ads for brands found in fashion magazines and online are non-conceptual. With the trend moving toward believing in a brand, ads need to be more than just pretty—they need to be designed around a solid brand concept.

After years of the this Intro-Level Advertising Design assignment being used to teach students the power of the image in an ad, this brief got a revamp. First and foremost, students needed to have a concept. They were required to research positioning, and identify a specic audience. Beginning with sketches, they were not allowed to move on to shooting before a big, insightful, on-brand concept was approved. Students then explored the collaborative realities of production by taking on the roles of art director, photographer, casting director, retoucher, writer, and stylist. Using Bridge, Photoshop and InDesign they created a campaign.

We will show the process, award-winning student examples, and explain how the ads became an exhibit in a student gallery.

17 Age of Appropriation: An introduction to a tool that can help draw the line between use and misuse in the classroom.

(Chauncey) Rion Huffman
Pittsburg State University

Abstract
The intentional borrowing, copying, and alteration of pre-existing images and objects; appropriation has been part of art and design almost as long as they have existed. However, the use of appropriation has come under scrutiny because of disputes such as Fairey v. Associated Press (involving the Barack Obama "Hope" poster) and the appropriation of Instagram images by Richard Prince that many have labeled as intellectual property theft.

As appropriation walks a tightrope between new creation and theft, educators are charged with being the moral and ethical compasses for students that are either interested in appropriating work or have experienced someone else appropriating their work, perhaps inappropriately.

Any discussion over the parameters of appropriation can be complex and subjective. In order to remove as much subjectivity as possible, a firm understanding of basic intellectual property rights including Creative Commons should be introduced into the classroom. An understanding of these two topics can help guide students to make their own best judgments on a case-by-case basis. In giving the students this information, we are arming our students with knowledge that will help them well outside the realm of appropriation.

But can we really expect educators to be experts in intellectual property rights and Creative Commons in addition to their discipline specific knowledge? That is always an issue when confronting new topics with educators. With that in mind, I have created a guide for educators and students alike that is a quick and easy reference tool for those topics. The guide will be available as an interactive PDF, and can be shared and remixed by any student or teacher to suit their individual needs. The guide will be available for the UCDA community as well as the design community-at-large.

18 CO-LAB: Collaborative Design Education

Elizabeth Herrmann
University of South Florida St. Petersburg (ras+e)

Ryan Shelley
Bowling Green State University (ras+e)

Abstract
A field once dominated by assembly line, one-stop agencies—design has harnessed modern tech to produce a new working model of small, interdisciplinary, voice-heavy collaboratives who own culture and combine authorship. *CO-LAB* is an ideology and body of research which has led to a set of contextual essays on facets of collaboration, case-study interviews, and experimental curricula. Channeling Kurt Vonnegut, Jello Biafra, and Ellen Lupton, we build a detailed case for the advantages of interdisciplinary design in a team context as a reflection of contemporary views of authorship, accessibility of tools, and a plethora of hungry, young makers with startup role models. We aim to inspire both students and professional designers looking for a new way of working.

In the States, educational models are as cyclically fashionable as the Apple logo and as futile as yo-yo diets. Design teachers historically have embraced tech tools, ideally while upholding humanistic inquiry above wired glam. While traditional universities were fudging test scores to boost national ranking, democratic weekend conferences teaching Python, PHP, and digital painting, bypassed state legislatures to reach frustrated artists/students directly. Likewise, free online courses and DIY tutorials became cornerstones in the growing community of open-source Makers. Established schools initially ignored, then absorbed these upstarts.

An historical reliance on reputation, program diversity, and accreditation has proven inadequate, or too expensive, for the lower income Thirsty Intellectuals. The undergraduate Design School is an established tradition, and graduate programs are pushing the standard credentials higher still, as explored by Project Projects' Rob Giampietro in *School Days*. But the inevitability of academia as a necessary industry stepping stone is unwinding, the first reversal of degree escalation since the trade first became an Associate. Schools no longer monopolize Tools Training, so educators have been able to shift from technical craftsmanship to formal and conceptual experimentation. Neil Postman argued that we must reclaim education from mere job training and that interaction is ground zero for shifting a culture. Industry has always prized trendy code wizardry, but as small studios emerge with an emphasis on content, voice, and interdisciplinary collaboration, design education must scramble to adjust the narrow portfolio models currently taught.

For UCDA Design Education Summit 2016, we would like to propose *CO-LAB: Collaborative Design Education*, which is an argument for culturally-savvy and professionally-responsible collaborative design pedagogy, informed by our continuing research on Collaborative Design, and as it applies specifically to how design educators can rethink design and foundations curricula to meet current industry demands—personally, socially, structurally, financially, and technologically. Design educators who think student collaboration is cheating will understand why this mentality is far from accurate. *CO-LAB: Collaborative Design Education* is a case for effective, socially-aware futures by designers who think thinking matters.

Intro: Why Collaborate?
Addresses specific topics on the strides, setbacks, and influence of collaboration on our culture. By asking what's happening? and distilling theory and research down into a palatable set of topics, we better understand how the cultural puzzle pieces fit and how to move design education forward.

The New School
A call for the curious-minded, the interdepartmentisciplinary studio, and the transactive teacher.

Topics Addressed:
+ Lonerism: Design's Historical Resistance to Collaboration; The New Culture-Jamming Cowboy
+ Artistic Responsibility: Solving the Big Problems
+ Huddle for Warmth: Economic Considerations
+ Kill Gatekeepers: End of Barriers to Entry; Embracing Copyleft Business Models
+ Indies: Contemporary Studio Models; Life on the Fringes
+ Sandboxing: Collaborative Environments
+ Responsive Thinking: How Language and Dialogue Impact the Design Process
+ Rewired: Impact of Social Media, Efficiency, and New Technological Tools
+ Designer Couples: Merging Work and Life

CO-LAB: Collaborative Design Education

by ras+e

LGSuzy stares down Sally In Beta through the ravine of monitors. Nobody would be able to read through their years of perfected smilescript, but Sally secretly wishes to stab Suzy's shuttereye with a stylus and watch all that pretty unicode waste into the ether. If her system would allow it, she'd wirelessly Snow Crash all of Suzy's NURBS.

Sally just found out that she has to collaborate with her mortal designemy.

Tell a class to tweak 3800 kerning pairs and they'll happily chainstream Netflix while doing so. Tell a design student to compromise their design ethos with a fellow classmate and they'll unapologetically morph into a feral leprechaun pillaging the studio for a pot of PVA and something sharp.

The problem with collaboration is other people. The problem with teaching collaboration is other people with other people.

The education system in this country is in a bizarre mirror hall of self-instigated nimbllectual crisis.

We hold these truths…

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Talking meaningfully about collaboration in collegiate arts/design classrooms is wobbly because of the diversity of schools, programs, and stakeholders, and it's the stakeholder components (students, parents, faculty, administration, industry) that have been aggressively segmented in contemporary education.

Our interdisciplinary design studio collaborative, ras+e, wrote/designed/illustrated/edited CO-LAB: Collaborative Design Survey for BIS Publishers in 2015, partly as a means of vindicating our own processes and means of working, but primarily as an investigative tool of detached academics to figure out if the universe was shifting around. We interviewed over 100 diverse (OK Go!) practitioners and combed contemporary and historical news events to build a body of research exploring relevant approaches to collaboration. We absolutely were not writing a manifesto, vested interest aside.

But our interviews showed us up. Our premise is that design (in the broadest sense) and the arts in general, were shifting toward a model of small interdisciplinary collaboratives at the expense of the one-size-fits-all agency assembly line. How we work was echoed, with few exceptions, in the experiences quoted by the other designers we interviewed. So, those stories became our research; scientific process be damned. Our book absolutely became a manifesto.

This essay, an extension of our CO-LAB components merged into the education realm, is a manifesto adapted. And while collaboration may be the norm in The Real World, education is not the real world; at least, it's not supposed to be.

[NOTE: Both authors are full-time design faculty at state universities, and recognize the wormhole of time posed by litany-lists, so we will limit edu-complaints to the narrowed focus at hand, and save the rest for our ongoing effort, titled ANGRYOUNGANDPOOR: Why Only the Old Professors are Happy.]

Forgive our hyper-aggressive macro side, but the reasons why design collaboration is a Real World given, and why a particular species of it has grown rapidly and thrived diversely, are the same reasons obstructing its implementation in schools, specifically colleges. Fallout from the rise of business–oriented administration takeover in colleges is documented in The Fall of the Faculty by Benjamin Ginsberg, but to paraphrase, the net result forms a clashing +/- in terms of collaboration in universities. We see one facet of this in the expansion of standardized testing, paired with an emphasis on STEM fields, which combine to eliminate some of the most relevant and open–ended aspects of design and collaboration in grade school. When school leadership is in the hands of educators, the mission of the school is education, and resources are allocated accordingly. But the goal of a corporation, legally, is to make as much money as possible for its shareholders. Radically different objectives bring radically different results.

Some of these tensions are obvious: co-teaching a course means two faculty are being paid to run a class that "makes" enough money from tuition to cover one of them. Schools are starting to solve this by linking two classes (and their faculty) together, whether within the same department, across the university, or between schools. And the amount of grant money needed to buy out a contract for a course is relatively manageable. However, under these conditions, only co–taught, one–off experiments get funded, and must be planned well in advance as they compete for grant funding. Unfortunately, part of collaborative vibrancy can be attributed to the live nature of interaction, a trait that may not fully flex under these rigid constraints.

For the increasingly rare number of full-time tenured positions available, the long and intensive review process does not cater to collaborative efforts, nor the arts in general. The crux of frustration for collab–happy faculty pursuing tenure is that the tiered rings of tenurejudgement often are unsure what constitutes success in the arts/design where "research" is rarely defined as clear slots: publish in Nature, review submissions to Cell, and secure exterior grant funding for projects executed with PhD candidates. This disconnect is somewhat inevitable; an MFA (not PhD) is terminal, there is little arts funding for projects, few design publications exist and they have little clout since groundbreaking arts essays are not intrinsically linked to traditional breakthroughs

of acquiring new Data or mining obscure History. Schools notoriously promote their art faculty based on their clients or exhibitions, with some publishing thrown in. This is problematic, as having famous clients, such as Coca-Cola, does not say anything about the quality or new terrain of the work, and the peer review process of exhibitions has much to do with a chosen theme and the individual curator who is crafting the show to their own message. Top shows are relatively few and far between compared to publication quantities of contemporary periodicals. For the non–arts, tenure–reviewing faculty, even the concept of "making" versus publishing/researching feels wobbly, arbitrary, and subjective. Success in the arts runs opposite to academic standards.

Collaborating faculty face an even tougher challenge: they have to prove authorship of co-authored inventions. Typically, when art/design faculty go through the tenure process, they postpone collaborative work and publish/research/lecture/show individual projects to make their argument for their personal contributions as groundbreaking and essentialist, highlighting their singular authorship. The unfortunate result is institutions are not forced to adapt or change, since the faculty are devolving. For the candidates who refuse to break apart their collaborative accomplishments, schools are happy to save some money and hire someone else; there are plenty of MFA–holding, professor–wannabes, and universities have trended aggressively to replace tenure positions with adjuncts and non–tenure titles. These mercenaries have a higher course load and no job protection, making it harder for them to invest in the original research side of any academic collaboration, which always involves extra time investments beyond standard course formats. Schools justify this by claiming that only tenure–track positions possess requirements regarding research, and yet proof of quality research agendas forms a key part of all faculty hires.

Separating these three threads—paying for co-teaching, arguing for collaborative accomplishments during any faculty review, a shrinking pool of faculty with research-friendly schedules—from the shift away from a faculty–driven university structure to a business–minded and administration–heavy hierarchy is impossible (something about the birthing process of fowl).

In short, even though interdisciplinary design collaboration is an appropriate approach to higher education in the arts, universities passively discourage the practice.

Because the fracturing of the American university system is directly tied to repurposing schools as job–training machines, any argument for a shift in structure and pedagogy must be pitched in terms of financial rewards/objectives: for administrators, for prospectives and their parents, for government officials. This fits with our CO-LAB book. We argue for collaborative work in academia by pointing to successful models of professional interdisciplinary design collaboratives. Theoretically, this makes it easier to secure funding for the requisite faculty, projects, and courses by pitching the "outside-the-classroom" game, Money says. But in keeping with the earlier noted Truth, college is not The Real World, unless some administrator is arguing for Event Management courses and internships for freshman to be taught by private companies, since "education happens outside the classroom."

Interdisciplinary collaboration in design, despite all anecdotal and data–driven knowledge to the contrary, is not SEEN as a financially sound, Real–World relevant, pedagogical process. When business vets take over universities and run them like corporations, weird things happen with money, like sports budgets. (There are examples, like Ohio, where the highest paid state employee is a university football coach, with a few basketball coaches holding the peak in locales like Kansas.) Even in state schools, acquiring quantities of students beyond what is needed for solvency or efficiency, drives the financial (meaning, all) decisions administratively. While private schools charge whatever they want, state schools often wrestle tuition caps from legislators, and try to make the money up through a crazy amalgamation of fees. Since art programs generally have higher operating costs, they are especially dependent on fees, creating tension with the university seeking numbers overall. Ditto for courses considered "interdisciplinary" or "collaborative," or without an established and clear influx of resources. State schools are often the only affordable means to an art education for historically underrepresented groups (read: poor), and these students are often attending school with the added emphasis on job security after graduation; never a good push into the arts. These students have particularly valuable diverse points of view to contribute to interdisciplinary work that crosses boundaries, thus, they have options and rarely end up in the arts.

In a knife-twist of irony, state schools currently receive only a small percentage of their budget from the government, with the slight exception of flagships, yet are held to increasingly strict guidelines from legislatures and administrators that prioritize STEM job training. Scott Walker's evisceration of the famed Wisconsin system is a grade F example. This multiplies the strain on art/design programs that require materials, facilities, small classes, and generate little interest from corporate grant granters. Two of the historically most innovative American interdisciplinary collaboration hubs, Building 20 and Bell Labs, were notoriously irresponsible as economic investments in the short term, but wildly successful on a longer timeline. The lack of oversight led to many unplanned interactions, which led to large quantities of invention, many which sputtered and dead-ended before becoming massively successful.

But schools, especially those run as businesses (so all of them), are not interested in the long-term, partly because students are only investing for four years, and their vending–machine approach to education has little space for projects that may or may not lead to a quantifiable success. Students hate: "You don't know until you try."

Students (and their parents) are 100% complicit in the void of institutionalized interdisciplinary collaboration, which prioritizes the process over the ends, and often requires an extended timeline. Because they view school as job training, any projects or courses that do not emphasize some Real World output, and that do not reek of Industry Standard, do not hold their interest. They want to know that each project and each grade ties to a guaranteed increase in income. While art and design faculty may emphasize interdisciplinary collaboration as a means to inven-

tive work, students often see the merits of projects purely in terms of a quantity of portfolio–friendly results. Creating good and innovative work is less important than creating hirable work.

As any high school teacher chafing under standardized tests will agree, and as The Fall of the Faculty documents, school is actually very much like The Real World, but it shouldn't be. Education and business have different objectives; at least, they used to.

So, why bother? If collaborative teaching and collaborative projects mean the workload is higher, students kickscream and administrators scorn…

Certainly, some invested students and some gorgeous results can impact faculty portfolios of student work and provide opportunities to Write! Research! Present!. But there is no guaranteed benefit from the struggle, in terms of income or promotion or fame.

Our book argues that while schools are not set up to favor the practice, interdisciplinary design collaboration IS the future of the non-assembly-line JWT agency model, that it is the growing methodology, justifying its place in universities. Students and administration may resist, but a healthy apathy on the part of faculty toward the interests of misplaced administrators and short–sighted students can lead to unexpected ways forward. Faculty can combine classes if they can hack the space and keep the two courses' enrollments at the minimums, they can pursue unfunded (and unaccountable) projects with requisite publishing/presenting opportunities, and they can launch startups/studios that tie into the classroom. While this doesn't solve for all of the concerns and barriers, there is no glass door preventing collaboration—rather design and the arts solve problems the way they always have: without concerning themselves with immediate financial gain. As Bell Labs and Building 20 proved, the pursuit of new forms of knowledge and making, which one might reasonably assume should be very "at home" in a university context, can pay off in the long run. If faculty are willing to sacrifice short–term tensions, they can push for the laboratory in the design classroom—providing that no interference derails the projects—and they may have results to vindicate their approach before the environment intrudes.

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Having students work through something broken will only support their distaste for collaborative work and fear of working in a studio setting. Collaborative projects are often somewhat out of the instructor's control, but their agility is the difference between students gaining a specific and unusual component for their portfolio and education, or absolute frustration. Working through, and dissecting, negative experiences should be for more advanced design students.

So, some kernels of planning good collaborative coursework taken from our own experiences:

1) Buy-In. When students believe in what they're doing, collaborative work is cult-like. Work feels like play and its addictive. Tasks and management become intuitive and fluid, without manhandling by the instructor. This means the leadership maintains focus on the process, and not just the end.

2) Self-Interest. If students are concerned about jobs and portfolio–worthy work, then throw them a bone. Make sure the process/experience/output gives them something to show and tell.

3) Know Your Audience. Upper–level students need portfolio pieces, but this is just as much about the diversity of the group. A wide skill set requires projects with more eccentric tendrils to maximize potential. Also, consider how much pure production work is needed, and what student leadership options are available when building parameters and structure. Production–based collaborative work is easier to organize, but often not as fulfilling to students seeking individual contributions they can callout in interviews. Anticipate structures where students shift from conceptual to production roles as the piece progresses. As a general rule, collaboration benefits from the group thinking and working both individually and collectively. Create stages where students move back-and-forth, from working separately then coming together, then back again.

4) Scale Matters. Sprints and weekend workshop models work well because the work level is intense and the promise of a finish line keeps students invested through the end. However, such projects result in prototypes and lessons. If the objective is a larger finished piece demonstrating more involved abilities for portfolio reasons, then creating group and deadline structures along the way helps keep the work on track.

5) Small Groups. Nothing kills a project like some students sitting around. The leaders resent the slackers, and the slackers are typically desperately wishing to be involved. Two students can usually sync their schedules, and three or four to a group eliminates deadlock. For larger projects, helping to organize groups is essential.

6) Self-Selection. Assigning groups is often an attempt by a faculty member to balance weak/strong students, but this self–serving approach is a massive turn off to the better producers. Letting students group themselves, even with a guiding hand from the teacher, usually eliminates potential clashes.

7) Open-Ended Prompts. The more freedom a group has to import their individual strengths, the more specific the output. With collaborative projects, this is often built-in, due to the scale of the result.

8) Keep It Real. Even newbie faculty learn quickly that contemporary students want to know why a project is relative to their personal goals/needs before they invest, but when the background is explained, they often work rapidly.

9) The Impossible. Designers are turned on by the prospect of solving a seemingly unfeasible or impractical problem, whether it's a Big Problem, limited resources, such as money, or a time constraint. Designers also like the allure of fame, and young designers value the Pop! of a big project in their portfolio. Tasking students to solve "at scale" as a group, actually becomes a good lead into personal thesis work, as they gain a sense of how much ground they can cover and are pushed to explore extreme ranges of resources.

10) Debilitation. When designers have to learn a new skill, such as a medium or software, they all enter a project on the same level. If a few talents are becoming a crutch, pull the rug out from under the feet of everyone.

11) Fresh Eyes. Swapping work is also collaborative. Have an outsider work on someone else's project for an hour.

12) Interdisciplinary. If one person is great at code and another person is great at yarn bombing, encourage students to recognize how skills can be traded and shared. Technologically–social gains in knowledge and experience from a large collaborative project should dramatically dwarf The End Piece as portfolio output. The best group projects and teams typically include perspectives and skills from across the university. Faculty should seek opportunities to cross-list courses and teach collaboratively outside of their division.

13) Stake. For large pieces and large groups, allow students to fire each other from the group, with the fired student to receive an F.

14) Huddle for Warmth. Accepting a bad economy—no jobs and student loans—students should start coming to terms with low-budget, shared spaces and trading work.

15) Sandboxing. This refers to the physical space and proximity in which collaborative work happens. If possible, faculty should encourage students to take environmental liberties with spacial and structural malleability and to play in it. Faculty should also streamline the accessibility of gear and supplies for students to use. Conducive work environments inspire experimentation while also acting as a safety zone for failure. Dedicated space also encourages students to spend their downtime, and time spent on other homework, with each other.

16) Don't Confuse Social Media (Sharing) for Collaboration. Encourage students to share online, although they will almost definitely do so without prompting. But talking about something is not the same thing as doing it.

17) Co-Lab by Choice. Set a precedent of optional collaboration early in students' school careers, allowing them to team up on many projects typically considered solo efforts. It tends to be infectious; one collaborative project can beget others.

18) Horizontal over Vertical. As a reflection of contemporary, small–scale studio culture, the collaborative hierarchy of the class should be flat—meaning everybody does everything—or is minimally involved in an informed discussion about all decisions. The silo-ed concentrations of page layout, photography, typography, copy, art directing, etc. promoted by the large agency in need of productionminions are defunct. Leadership is essential to keep the groups in motion and to streamline communication, but the leaders must be subservient.

19) Collaborative Competition. Critiques not only afford students the opportunity to learn from one another, but also drive them to outdo each other.

20) Dialogue. Collaboration demands discussion and quality communication skills, typically monitored/encouraged by the faculty member. This freespinning blur of talk often raises valuable moments to teach across an unexpected array of raised points, by students and the instructor. It also heightens the development of design vernacular as students write and communicate their ideas.

21) Co-Teaching. By collaboratively teaching a course, faculty model valuable communication and the value of diverse perspectives. This can be a crucial component of scale. Conflicting feedback from co-faculty also encourages students to make decisions for themselves, lessening the possibility of art directing or forming protégé-clones.

22) Curiosity. Students are generally excited and highly engaged in a collaborative project during its beginning stages, where the experience is new and full of unknowns. But the suspension of disbelief will only last so long. It's important for students to have the freedom to self-organize and for components to fail, but faculty have to maintain awareness and involvement so they can guide when needed, to keep necessary intellectual and production-momentum up.

23) Self-Policing. Students who, on their own or in pairs, produce highly aggressive and risky work—formally and content-wise—can suddenly lose their edge when designing for a Client or within a large group. The same groupthink danger of the brainstorming process popularized by IDEO and others, can swamp the interesting potential of outlier concepts. Instead of creating a diverse web of options, critical mass quickly builds around overlapping areas. This same self-policing crops up when students assume their peers are after the easier or more obvious threads.

24) Contextless. Teaching, and probably parenting, is largely about providing context, more than outright conveying of data and information. Group projects typically operate with scale/speed, requiring faculty to guide through anticipation more than art direction.

25) Clients. Tossing a body of students into a design studio or Real World challenge and asking them to invent their group process from scratch can build important skills, but faculty should be

involved with client interactions to make sure all parties involved have their needs met, so that the students are not reduced to worker bees. Internships are should not be a student's first collaborative experience.

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While the CO-LAB project and our other work discusses some of these collaborative threads, we want to leave with some specific advice to those encountering resistance to collaborative approaches within academia: Don't Change (but Do Explain).

A prospective publisher does not care how or why the book exists, they just need a return on investment. When an author's name sells more than the book title/summary, the publisher will acquiesce to group names on the cover. The relationship and needs are established from the beginning.

But schools are more nuanced. Faculty adjusting a classroom dynamic or their work in order to appeal to a tenure–review board prioritizes their own interests over their students' long–term benefits, and while these professors do exist and are often powerful—and old—they run unimaginative classes that the hungriest students learn to avoid. Future innovators on both sides of the desk tend to find each other. If stuck behind faculty/administration who are in the education realm primarily to serve themselves, who refuse to consider the needs and processes of contemporary design culture, then leave. Self–interested students, administrators, and faculty simply do not evolve. Future meal tickets are based on having innovative work from students and personal work, so take the show elsewhere.

Students can often be brought on board by articulating the link between a collaborative process and Real World applications. Administrators respond to proven projects executed by diverse group approaches. And stubborn faculty can sometimes be roped-in by proposing a specific collaboration. However, for those faculty/administrators who will only support individualized approaches to education, leave them to struggle with their obsolete futures on their own.

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NOTE: ras+e publish their teaching projects at their CO-LAB site: http://co-lab.us/curricula

20 The City of YOU

Robert J. (RJ) Thompson
Youngstown State University

Abstract
Youngstown State University in partnership with the City of Youngstown was approved for a two year federal grant from the Economic Development Administration supporting the development of an economic development and marketing/advertising strategy. Putting this purpose into action, an interdisciplinary team of economic strategists, researchers, community organizers, and graphic designers was developed to finalize an economic development strategy and marketing/advertising campaign.

The collaborative, multi-disciplinary strategy offers a new future-focused narrative for Youngstown, visually portrayed through a multi-point advertising campaign that offers intelligent and meaningful expressions across all print and digital media channels. This campaign, titled "The City of You", was developed by RJ Thompson, Assistant Professor of Graphic and Interactive Design and his Youngstown Design Works students at Youngstown State University. Youngstown Design Works is an elite-level, student-run graphic and interactive design agency that provides affordable, high quality design services to Youngstown-area civic and business organizations.

All advertising and design concepts created by Thompson and his students were subjected to extensive stakeholder critique, public presentation, critical observation and in-depth analysis through the use of target-specific focus groups, user testing scenarios, and experimental, in-person data collection techniques. Campaign deliverables include, but are not limited to, a completely new brand identity, advertising, printed and digital billboards, a newly redesigned City of Youngstown government website, and a centralized "City of You" campaign website that highlights crowdsourced stories of Youngstown citizens.

Launching in late April 2016, it is expected that the conceptual potential and significant financial investment supporting the campaign will permit it to run for a minimum of 5 years with local, regional, and national exposure.

21 Taking the Green out of Sustainability

Pouya Jahanshahi
Oklahoma State University

Abstract
While Sustainability became a trendy phrase a decade ago, it lost its glamour—as do all trends—remaining as an alternative-only in the realm of design education. This paper proposes a change of approach towards Sustainability in design education: taking the out green-only perspective. Hence, implementing Sustainability as a core element—not an alternative—in a graduate and undergraduate graphic design curriculum. Furthermore by providing resources and processes, this paper shall facilitate implementation of such a foundational perspective.

Sustainability—associated with "green life style" and "saving the planet"—ran out of steam when faced with bottom-line approaches and economic priorities during a recession. This was reflected, in education arena where Sustainability was—and continues to be—viewed as an "alternative," only an after thought. Through a synergistic approach, Sustainability shall become a core aspect of design education, preparing the new generation of graphic designers to engage the challenges awaiting them.

Embedded in Foundations and Theory
Such a fundamental change, must start from a theoretical and foundational perspective early on, becoming part of every design students vocabulary.

Support From the Past and Present
Design history is where the past disregard for sustainability in design can be placed within the broader timeline, and the charge be given to the new generation of designers: a call for a new way of thinking, producing and using.

Pragmatic Hands-on Approach
Sustainability shall become an aspect that will be valued, researched, implemented and measured. Processes, resources, tools and case studies will crystalize how sustainability becomes reality and how its effects have made an impact.

Reaching Across the Fields
Fields of architecture, industrial design have long been practicing Sustainability approaches, and can guide and jump-start such movement in the realm of graphic design education.

22 To Teach or Not to Teach Design: Teaching Graphic Design to Non-Art and Non-Design Majors

Myda Iamiceli
University of West Georgia

Abstract
When first asked to teach a design class for non-art and non-design majors, I had misgivings. My experience had shown me that most people don't really know what graphic design is, including fine art majors. Most people think of the software programs, not the principles or the process of graphic design. In the past, I always had a hard time explaining what I do. People think graphic designers only create logos and websites, with Photoshop, of course. That's it. But design is so much more. After much thought, I decided I wanted my students to walk away from the class understanding what graphic design is and respecting those who professionally practice it.

A quick search on Amazon.com showed a few books dedicated to teaching basic graphic design. But, as you scroll further down, you see that it becomes more and more about the software programs. This is where the lack of understanding stems, most laymen think design = software programs. They think the programs do the design.

The design process is what helps us ideate, prototype and finally create effective solutions. The potential is here. This is the part of design that laymen don't know about and should understand. Instead of focusing on craft and technical skills, I focus on the process, the value of following the process and the thinking behind the solutions.

As graphic design educators we need to communicate the value and potential of graphic design to future professionals. To accomplish this I've developed process- driven projects that have had surprisingly positive results. This paper will discuss the problems educators face teaching non-designers and the projects that have helped. If we can teach our students to embrace the process and the potential of graphic design, we can lead them to the understanding we all crave in the profession.

To Teach or Not to Teach Design

Teaching Graphic Design to Non-Art and Non-Design Majors

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> **There is this disconnect between the way serious designers define design and the way popular culture defines it — the emphasis is overwhelmingly on style.**
>
> —Warren Berger, *Glimmer*

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When first asked to teach a design class for non-art and non-design majors, I had misgivings. My experience had shown me that most people, including fine art majors, don't really know what graphic design is. Most people think of the software programs, not the principles or the creative design process. In the past, I always had a hard time explaining what I do. People think graphic designers only create logos and websites, with Photoshop, of course. That's it. But design is so much more. After much thought, I decided I wanted my students to walk away from the class understanding what graphic design is and respecting those who professionally practice it.

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As graphic design educators we need to communicate the value and potential of graphic design to future professionals. To accomplish this I've developed process-driven projects that have had surprisingly positive results. This paper will discuss the problems educators face teaching non-designers and the projects that have helped. If we can teach our students to embrace the creative design process and the potential of graphic design, we can lead them to the understanding we all crave in the profession.

> Using computers to make an image?
>
> Designing graphics on computers.
>
> Computer aided design — not completely sure.
>
> Art expressed digitally.
>
> Visual communication design for commercial purposes.

figure 1

Keywords

graphic design, ethnography, empathy, process, design thinking, non-majors

Introduction

Many students don't really know what graphic design is (figure 1). "There is this disconnect between the way serious designers define design and the way popular culture defines it — the emphasis is overwhelmingly on style" (Berger, 2009). Some clients think all we do is make things look good. Students think if you have the software programs, you can design. On the first day of class, the first question I'm usually asked is, "Are we going to use Photoshop for the projects?" Therefore, on that first day, I make it clear that we will be learning about design, but NOT the software. Software is a tool that helps us execute our design concepts and compositions.

But why does this perception persist? Why does everyone think they can design if they learn the software?

A quick search on Amazon.com and a few books dedicated to teaching basic graphic design come up, but if you scroll further, you see that it becomes more about the programs.

Lynda.com has over 9,000 graphic design tutorials. The first few selections that pop up are about the principles and concepts that educators teach, but the majority of resources listed are about learning a particular software program.

Not only is the average person confused as to what graphic design is, but its backed up by publications and advertisements. The public is bombarded with resources that imply, "Learn this software and you can be a graphic designer."

This misunderstanding or misinformation, coupled with the availability of the software programs has devalued the graphic design industry and its practitioners. Spec work is common in the art and design world and many small companies are eager and willing to offer "experience" to graphic design student interns for free.

Students, who feel comfortable on the computer and other digital devices, think they can take one or two graphic design classes and then become professional designers themselves. All these factors combined lead to the perception that graphic design is easy and anyone can do it with little or no training.

Many of the students that take the non-majors class are from Journalism, Public Relations, Mass Communications, Marketing, some from the Sciences, such as Biology or Nutrition, and Education. Regardless of the area, these students may

figure 2

Screenshots from several websites regarding design thinking.

potentially work with a designer in the future. What can I teach them so that they respect what graphic designers do and trust their expertise and the process, and most importantly, the potential of design? I want students to learn how design can change lives. To me, this is the ultimate challenge.

How do we change the world? What is the essence of what we do? We are problem solvers. From redesigning a brochure to developing a new product or service, we solve problems, and our creative process, our methodology, is what helps us to do this. To demonstrate the potential of design and how design can change lives, I took it a step further. I introduced the class to design thinking.

Why Design Thinking

Design thinking is everywhere. There is a "growing trend that companies are elevating design and expanding its role in business" (Stuhl, 2014). Both Fidelity and Deloitte, financial institutions, have embraced design thinking to differentiate their products (Leichter, 2011 and King, 2012). Other corporations have either hired or acquired design studios to conduct design thinking methodology to develop new products. Some have hired CDOs, Chief Design Officers, to oversee this new creative process to integrate design into product development and marketing (Stuhl, 2014).

In education, there is the d.school at Stanford (Institute of Design at Stanford) and the Harvard Business School conducts many design thinking workshops and offers a Design Thinking and Innovation class, as well as a Leadership development program in the graduate school entitled: Leadership and Design Thinking. "Design Thinking is ... focused on listening, user empathy, whole-brain thinking, collaboration, and experimentation, design thinking can be applied in any field — from architecture and design to healthcare and product development to urban planning and beyond" (www.harvard.edu).

Doreen Lorenzo, Frog's Ex-President is starting a design thinking institute at University of Texas at Austin. She wants to "create a program that will allow students to study design from a *multidisciplinary* perspective. The idea is to encourage students to use the school's many resources to *learn about design as a problem-solving system*, a concept that *the professional world has already embraced*" (Miller, 2016).

In design thinking (also called human-centered design) there are three key requirements that make it successful. First, the process begins with empathy for the consumer and deep insight into their behavior (Leichter, 2011). To achieve this, the consumer is involved throughout the process. Second, is the use of multidisciplinary teams. This is very important as each

figure 3

member brings their own expertise to the table, which results in better solutions. Lastly, is prototyping. Here the iterative design process is at play as the prototypes are tested, analyzed and refined quickly and with input from the consumer each time, to develop the final product or service.

The non-majors classroom is ideal for this methodology. The classroom often times consists of students from many different areas with different points of views and expertise. Additionally, the students usually don't know eachother and this project brings them together. All I have to do is make sure they follow the process and the other two requirements will be met. A perfect setting for design thinking.

Challenges

Most of the students have had no art education, so I begin with the basics. Before assigning the design thinking project, I give them a foundation by introducing them to the elements and principles of design.

Drawing Skills

Many of the students are apprehensive about drawing. Some come to me after class and profess that they can't draw, so perhaps they shouldn't be taking the class. I reassure them that they do not need to be artists.

The Sketchbook Project

To help them with their drawing fears, I assign the sketchbook project where they have to demonstrate what they have learned about the elements and principles of design by creating compositions in their sketchbooks using various image-making techniques (figure 3). For example, I teach them contour drawing, figure ground, stippling, crosshatching, collage, etc.

Some students do not enjoy this project and would prefer to jump to the computer right away, but I explain that this is part of the process and that some of the image-making techniques can be duplicated on the computer.

To create more ownership and interest, I revised the project and let them choose a theme (figure 4). Students bring in three objects and one word, and have to create a sketchbook using only these four items, so that the sketchbook will have a theme and demonstrate unity. The project sheet lists principles, concepts and image-making techniques that they have to include in the sketchbook at least one time. Once they're done with the requirements, they can finish the sketchbook in any way they please, but still using their four items. This has resulted in some interesting sketchbooks (figure 4) that have, frankly, surprised me.

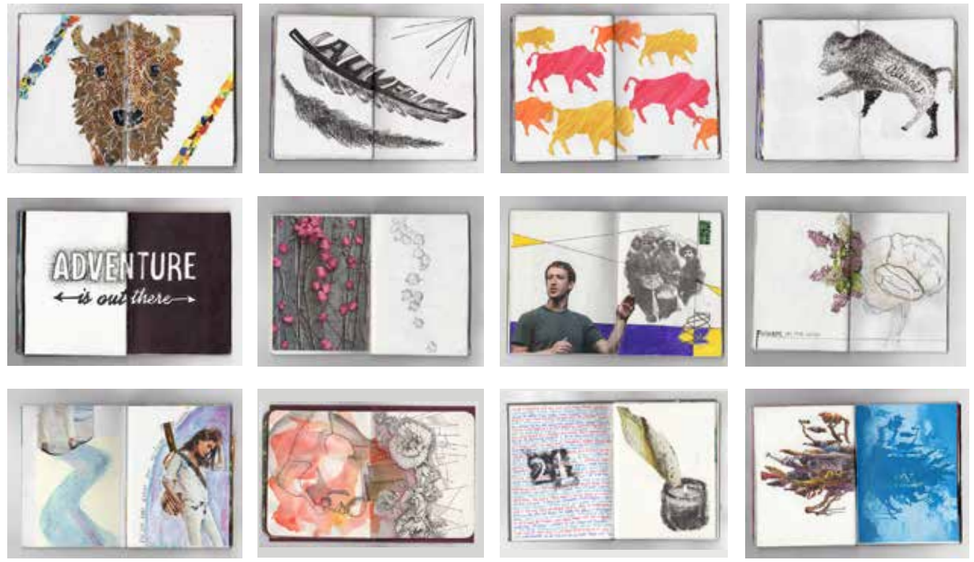


figure 4

Type and Image

The next project (figure 5) gives the students experience combining text and image on the computer by designing an event poster. Here I introduce typography, because everyone can benefit from typography, and hierarchy on a very small scale. The students are thrilled that they can finally get on the computer, but they quickly learn that I meant it when I said I was not teaching the software. I do a quick tutorial on Adobe Illustrator and assign a couple of in-class exercises to get them started, but explain if they want to get better, they have to practice, practice, practice. I also direct them to the many Online resources available to them.

Again, to create ownership and passion, they can choose any existing event or they can create their own event. Here I tie the image-making techniques they learned in the sketchbook to the computer. For example, I explain they don't always have to use photos, they can use simple contour drawings or silhouettes in their designs. I remind them of the principles of design so that they create pleasing and effective compositions that create visual paths for the viewer.

The students love this project, so I have not had to revise this one over the years. Some are even eager to hang their posters in their homes or use them for an upcoming campus event.

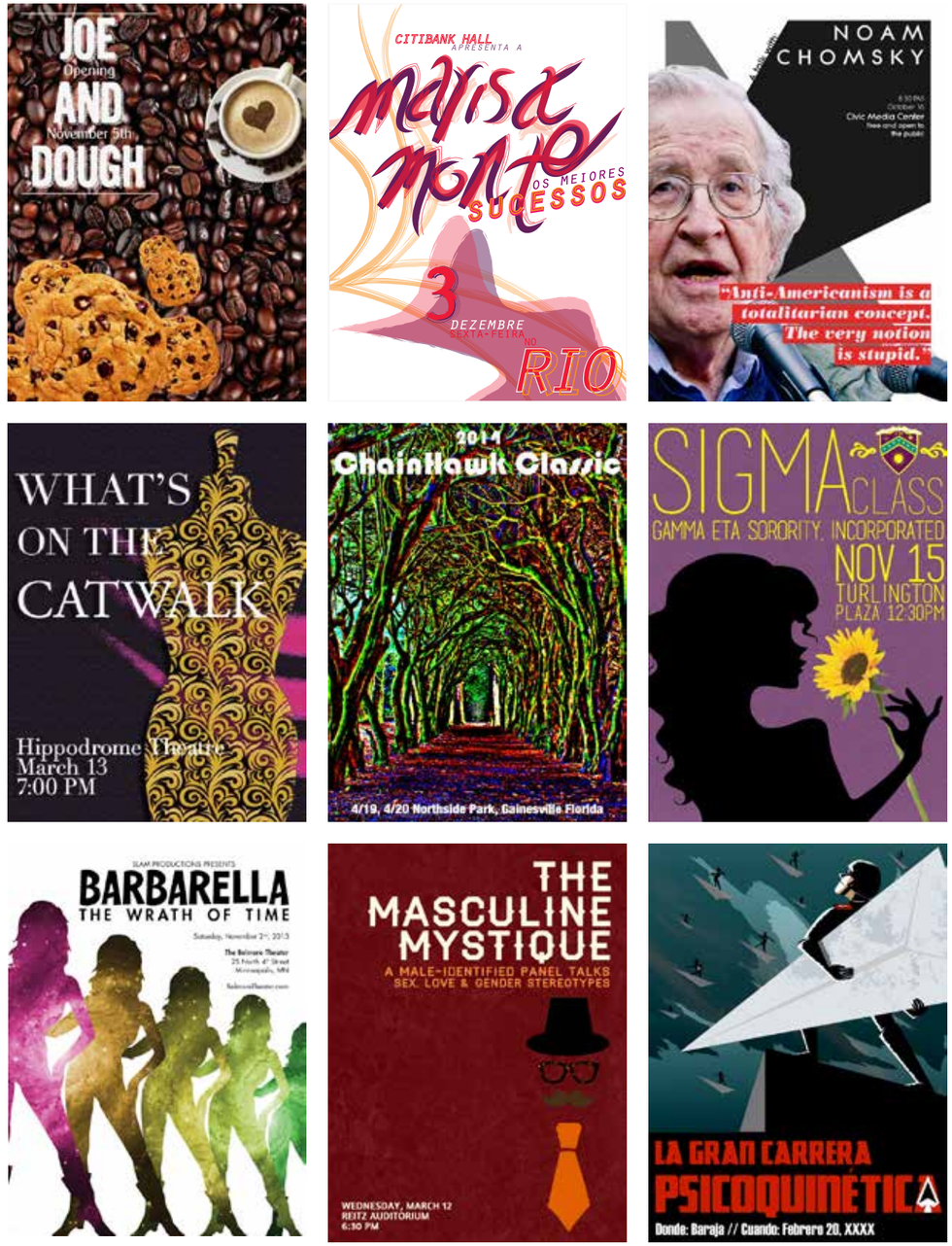


figure 5

figure 6

The Design Thinking Project

Once the students have a foundation of design and typography, and have learned some image-making techniques, it is then time to introduce the design thinking process and demonstrate the value and potential of design.

The design thinking project I assign is based on the IDEO Human-Centered Design Tool Kit, which I downloaded when I was in graduate school. This kit is currently unavailable, but *The Field Guide to Human-Centered Design* is available at https://www.ideo.com/work/human-centered-design-toolkit, as well as other publications.

To introduce design thinking, I play the following videos:

IDEO Shopping Cart: https://www.youtube.com/watch?v=M66ZU2PCIcM

Project Loon: http://www.google.com/loon/

The IDEO video is a 1999 ABC Nightline story where IDEO demonstrates the process of design thinking. The Google Project Loon is a beautifully animated video, *Loon for all*, and web page that shows how divergent thinking can lead to innovative solutions.

The IDEO Tool Kit is rather large and very detailed, explaining not only the process steps, but how to conduct the tasks within each step. For the class, I synthesized it down to the essentials so that it's much more manageable and achievable in a semester (figure 7). Notice how integrated the consumer is in the process. The process begins with the consumer, through observation, and ends with the consumer during the iterative design process where their feedback informs the changes and refinements to the prototype (Laurel, 2003). Compared to the "normal" graphic design process where more often than not, the product or artifact is designed with the consumer in mind, but only at the end, when the product or service is launched, is the consumers' feedback measured.

The goal of the project is not to create a finely crafted artifact, but to work through the process, learn how it works and why it's valuable. The students' final pieces are prototypes that still need more refining, but the idea and the process is what's important.

The Process

To begin, the students get into groups and brainstorm problems to address. I encourage them to choose team members that have varied skills so that each member will bring a different point of view and expertise to the team, as in the multidisciplinary

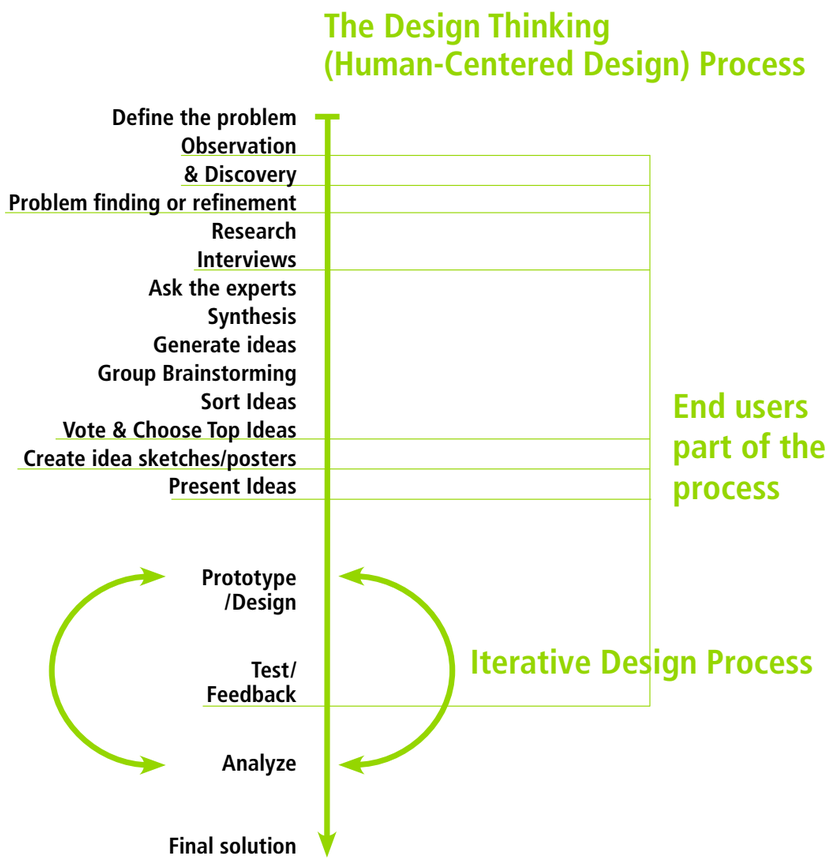


figure 7

teams that IDEO and others use for design thinking. It is important that they choose a problem that they are passionate about, so that they put the work required into this process requires.

Ethnographic Research

Observation and Discovery

Once they are in groups and have chosen a problem they want to solve, they have to observe and conduct interviews. Here is where the process requires empathy and a deep understanding of consumer's needs. The students observe the consumer using a product or service to discover the *real* problem. Sometimes we think we know what the problem is, but when we observe consumers we discover what the true problem is.

figure 8

From the top: Amber Kim and Joseph Murphy, Lucia Curihuaman Alvaro Gil, various students brainstorming including Megan Hamilton, Luan Chang and Cassandra Davis, and last, Keilani Rodriguez and Katie O'Shaughnessy (Fall 2013).

As in any other process, conducting background research is necessary. Students gather information on the problem and the competition. They look at what products or services exist and determine if they are successful or need further innovation.

Interviews

The students also interview at least three consumers or end users. To help facilitate this, I require that the problems they choose are local, and most of the time they are problems that exist on campus or in the immediate community. This makes interviewing and local research easier. They are asked to document their interviews with note taking, photography and video. This documentation can help with the solution, but especially become important when presenting their final solutions and talking about their process.

Another requirement is to interview an expert. I only require one expert because the students have had difficulties making appointments with experts in the past. One expert can at least discuss what has been tried, what has been successful, what has failed and any challenges to solving the problem.

Generating Ideas

Group Brainstorming

Up until now, it's been mostly legwork; research and information gathering, and this research is critical to developing effective solutions.

After observing and discovering the true problem, and talking with consumers and experts, the students synthesis the information and restate the problem. Once they have a clear picture as to what the real problem is, they can brainstorm ideas for solutions. This activity is always fun. Here divergent thinking is imperative. Viability, budgets, etc. are not important at this point, only ideas. Ideas are quickly jotted down on sticky notes and posted on boards. If I see any student hesitating or thinking too much, I ask them to put up whatever comes to mind, no matter how silly or expensive the idea is. They can even put up ideas that require technology that doesn't exist. I tell them, "The sky is the limit."

Sorting Ideas

The ideas then have to be sorted and put into categories. Here is were convergent thinking comes into play and feasibility becomes important, although, for my class, budget is not a factor. Remember, the goal of this project is to go through the process and learn how it works, not actually building and refining a highly crafted product or service, but just a prototype. From all their ideas they pick three to pursue.

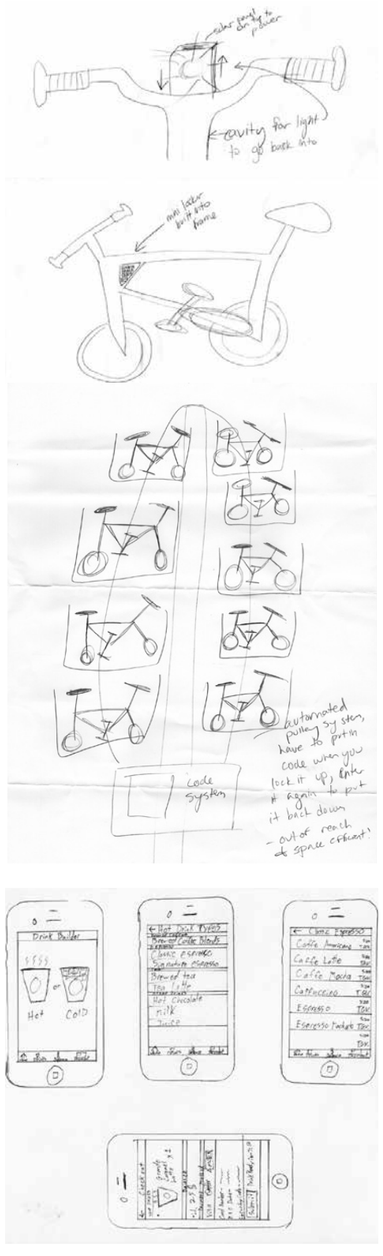


figure 9

Sketching

Sketching is an important part of ideation. These initial sketches are rough prototypes (figure 9) where students can work out problems and find opportunities. They also create mind maps to help come up with visual cues. The sketches are done in class and presented at the end of the class for feedback.

During the design thinking process, students are supposed to be engaging with consumers and getting their feedback as well. I remind the students to continually show their consumers the ideas they have been working on for feedback.

Prototyping

Once the students have feedback on their three ideas, they choose one solution to pursue. Then they can begin to design their new products, services or campaigns using their initial sketches as a starting point. I do not expect them to actually build products, unless it's packaging, but I do ask them to illustrate the final product. They also have to brand their new product, service or campaign, which introduces logo design and branding. Making the audience aware of this new product or service is also a requirement, in the media that best serves the audience. This can include posters, a social media campaign or TV ad.

Throughout the iterative design process, the students are encouraged to seek out feedback from their consumers in addition to feedback from their classmates and myself. This is imperative in this class. The final designs are much better when the group gets feedback on their designs. Constant feedback and process critiques are also key to improving their design aesthetics.

Student Work

Pages 12 through 15 show four examples of design thinking projects from students at the University of Florida, where I taught Graphic Design for Non-Majors as an adjunct assistant professor from 2013 to 2015.

I have been very pleased and impressed with the students' commitment and final solutions. The amount of work and adherence to the process is evident. The focus of the design thinking project is on the process and ideation, therefore some of the designs still need to be refined, as these projects are still prototypes. Overall the project feedback has been positive (figure 10) with many students enjoying the project and the freedom to explore a subject that they care about.

Conclusion

As graphic design educators and practitioners, we know the creative design process is what helps us ideate, prototype and create *effective* solutions. The potential and value is here. This is the part of design that laymen don't know about and should understand. Instead of focusing on craft and technical skills, I focus on the process, the value of following the process and the thinking behind the solutions.

Let's educate the future generation to understand design and its potential. My goal when teaching non-majors is to create this understanding, which will lead to respect of both the industry and its practitioners.

#1 The ABP Foundation

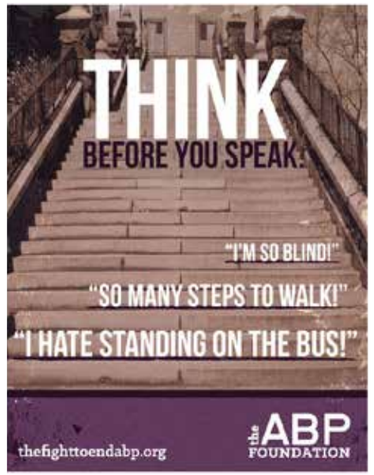
UF | Graphic Design for Non-Art Majors | Fall 2013

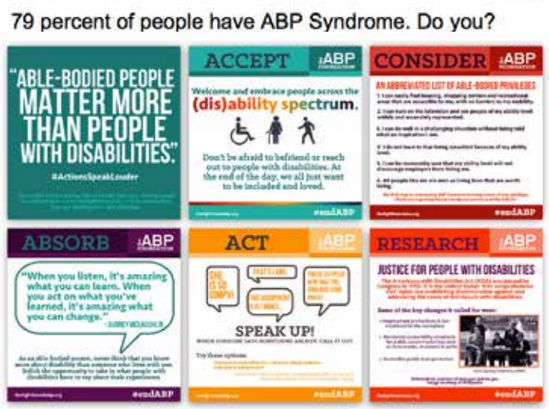
Problem Statement
People with physical disabilities face a lot of challenges in our society, including being targeted with discriminatory and insensitive language along with accessibility issues. How do we address the obstacles that people with disabilities face and help alleviate them?

Solution
An awareness campaign that uses humor and sarcasm to highlight what the able-bodied person takes advantage of.

Final Designs
Logo, posters, video and social media campaign.

https://www.youtube.com/watch?v=bjgg3XdyAek





Team
Daniel Bonnells, Marla Munro and Cassandra Davis

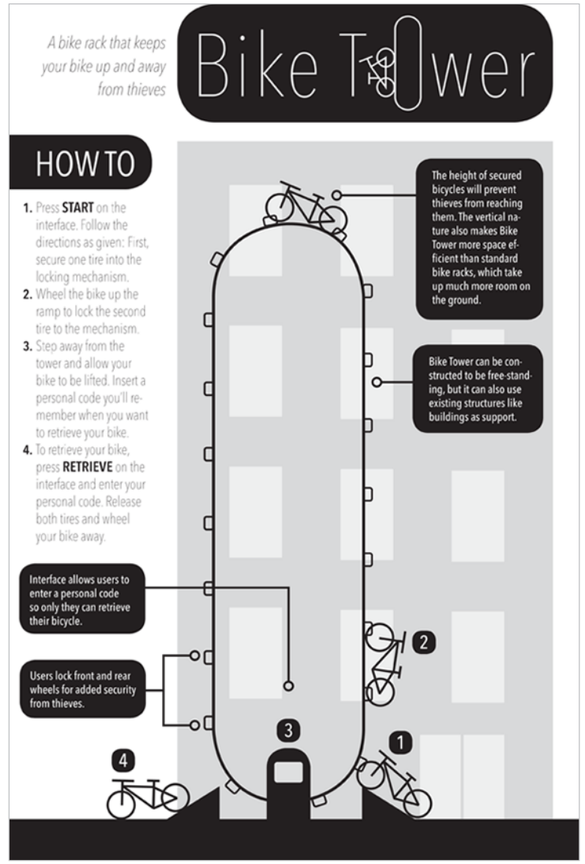
#2 Bike Tower

UF | Graphic Design for Non-Art Majors | Fall 2013

Problem Statement
How can we reduce the frequency of bike and bike accessory theft on and around campus?

Solution
The Bike Tower, a bike rack that holds multiple bikes on a conveyor-type apparatus, makes theft very difficult or impossible.

Final Designs
Logo, illustration, animation and poster.



Team
Katie O'Shaughnessy and Keilani Rodriguez

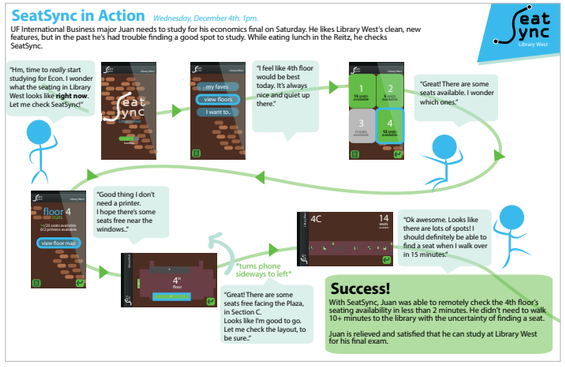
#3 Seat Sync

UF | Graphic Design for Non-Art Majors | Fall 2013

Problem Statement
Library West has many resources, but the often fruitless search for adequate seating impairs students' ability to take advantage of those resources. How can we help students find open seats?

Solution
Seat Sync is an app that monitors available seats using heat sensors in Library West and allows students to find and reserve seats.

Final Designs
Logo, illustration, app wireframes and poster.



Team
Megan Hamilton (right) and Luan Chang

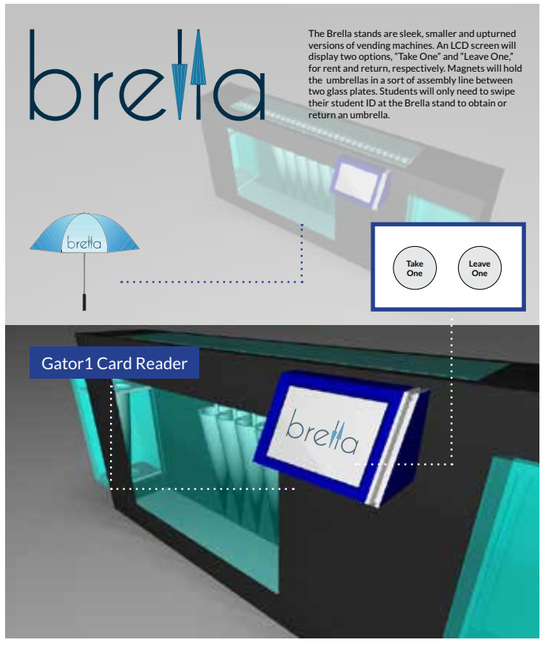
#4 Brella

UF | Graphic Design for Non-Art Majors | Fall 2014

Problem Statement
In Florida, it can be a beautiful sunny day one minute and pouring rain the next, and many times students don't have umbrellas with them. How can we provide cover when it suddenly starts to rain?

Solution
Brella is a machine where you can rent an umbrella for a day. Students slide their Gator One ID card to get an umbrella, and if the umbrella is not returned within 24 hours, the student's Gator One card is charged accordingly.

Final Designs
Logo, illustration, animation and posters.



Team
Aatish Patel, Jordan Fine, Paige Thies and Harper Edgcumbe

Cool [that you] let us cut loose and try different things.

Brainstorming was really fun.

It was great that you really let us do what we wanted. Other classes say that, but then it's really not true. We were able to work on something we really cared about.

Brainstorming, problem-solving and prototyping.

Liked making app.

Loved working on the logo and making the prototype.

figure 10

Biography

Myda Iamiceli was born and raised in Miami, Florida where she attended Florida International University and received a Bachelor of Business Administration in Marketing. After living in the New York tri-state area, she returned to Florida and attended Santa Fe College where she received an Associate of Science in Graphic Design Technology. In 2013, she received her Master of Fine Arts from the University of Florida where she studied graphic design.

Myda has many years of experience in the graphic design industry and has been teaching graphic design since 2003. She has participated and facilitated in several design thinking workshops at the University of Florida and the University of West Georgia. She is currently teaching graphic design at the University of West Georgia.

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23 Concept Development Through Problem-based Learning

Jeanne M. Komp
Cabrini College

Abstract

A concept is the cement that binds text, imagery, color and content together while embedding meaning into a design. In essence, graphic design is visual problem solving, however it is mere decoration without a carefully crafted idea. Petrula Vrontikis said it best with: "Practice safe design: Use a concept."

Despite the importance, students struggle with concept development. As design educators we know when our students are vested in a project, the results show in the quality of their work. Approaching student assignments from a carte blanche perspective does not always foster solutions steeped in meaning or innovation nor does this build diversity in portfolio projects. Although graphic design students tend to be visual thinkers, they must apply their cognitive skills to create effective design solutions.

In an effort to increase the development of more meaningful student design projects, I have employed greater, more distinctive assignment parameters. From unusual packaging to game-like topic selection, these problem-based learning approaches provide greater opportunities for students to showcase innovative thinking. Creating unique challenges within the confines of the assignment forces students to concentrate their efforts first on the underlying rationale rather than aesthetics.

Often, the parameters of student projects focus on the type of deliverable, size, color, imagery, and software. These are required, but do not allow for the non-objective assessment of creativity. By implementing a problem-based learning approach and defining creative constraints, faculty can nurture ideation, facilitate concept development and evaluate the creative merits of student work more easily.

This paper will serve as a case study. It will address process, challenges, and hindsight of two problem-based learning assignments.

CONCEPT DEVELOPMENT THROUGH PROBLEM-BASED LEARNING

Jeanne Komp | Cabrini College | Radnor, Pennsylvania

Concept is an integral component to creating unique, memorable design experiences. A concept is the cement that binds text, imagery, color and content together while embedding meaning into a design. In essence, graphic design is visual problem solving, however it is mere decoration without a carefully crafted idea. Petrula Vrontikis said it best with: "Practice safe design: Use a concept."

Despite the importance, students often struggle with developing concepts resulting in projects with flashy designs that lack substance. Based upon the 2013-14 Collegiate Learning Assessment results (figure 1), this should not be a surprise. 1,652 students from 169 institutions were tested as freshman and then again as seniors to measure their growth in performance tasks like: analysis and problem solving, writing effectiveness and writing mechanics, as well as in selected-response questions that focus on scientific & quantitative reasoning, critical reading and evaluation, and critiquing an argument. The results were not promising...students' skills in problem solving grew only 3/10 over four years!

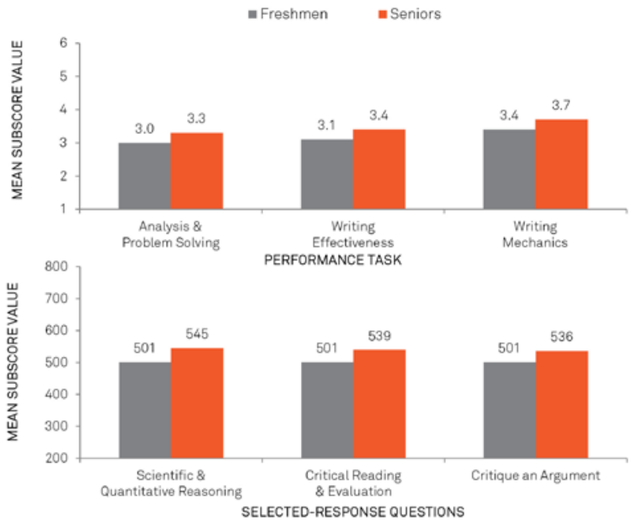

FIGURE 1: AVERAGE CLA+ SUBSCORE ACROSS INSTITUTIONS

The student's lack of analysis and problem-solving skills pushes design educators to pursue alternative pedagogies to achieve proficiency. At Cabrini, we do not have a separate course that focuses on teaching ideation, thus we must marry it to projects and continually teach the process. Repetition leads to understanding and mastery. Opportunities that combine creative thinking strategies and content knowledge acquisition maximizes student experiences. This methodology integrates well with the design process (figure 2). That is why I choose to focus on implementing concept development through problem-based learning pedagogy.

FIGURE 2: DESIGN PROCESS WITH PROBLEM-BASED LEARNING INTEGRATION

This approach promotes research before design thus increasing the development of more meaningful student work. I build in extra time for non-design exploration and facilitate in-class activities around it. This is crucial! Without it, students have a tendency to cling to their first ideas and use assumptive reasoning instead of digging deeper into the problem.

The projects I craft have greater, more distinctive assignment parameters. This promotes inquiry not assumptions. From unusual packaging to game-like topic selection, these problem-based learning approaches provide greater opportunities for students to showcase innovative thinking. Creating unique challenges within the confines of the assignment forces students to concentrate their efforts first on the underlying rationale rather than aesthetics.

Approaching student assignments from a carte blanche perspective does not always foster solutions steeped in meaning or innovation nor does this build diversity in portfolio projects.

By promoting the exploration of the unknown, students are compelled to think more deeply about the problem. Dan Stevens said "The comfort zone is the great enemy to creativity; moving beyond it necessitates intuition, which in turn configures new perspectives and conquers fears." Although graphic design students tend to be visual thinkers, they must be challenged to apply their critical thinking skills to create effective design solutions.

Below are two projects that I have implemented in my Graphic Design I course. These projects were specifically designed to promote problem-solving and concept development.

PROJECT: Can Packaging

[Problem: Reinterpreting the Package]

Using a quart-sized paint can, students are to develop a product that could successfully be packaged in a can, then design the label. *Note: the product can be anything EXCEPT paint.*

Objectives

- To apply creative problem-solving skills to determine a product.
- To create a product and package design.
- To construct a unique design that explores the 2D & 3D qualities of packaging.

After I introduce the assignment, I pass out several empty cans for the students to examine. Before I lead the students in a brainstorming session, I explain that the classroom is a judgment-free "creative zone" where there are no bad ideas only ways to make them better. The goal of this discussion is to identify needs and generate ideas. The whiteboard is used as a tool to record all suggestions.

Then, the students break into small groups to assess the ideas. They indicate which products are most viable and least viable as a packaging solution and potential marketing strategy by answering the following questions:

Why the can as a container?

Would someone want this product in a can?

How does the can add to the product's appeal?

Would the product fit well inside?

Would the can make the product too heavy?

What do you do with the can after your have used the product?

Would the can cause the product to become too expensive?

Once the groups are done categorizing, we share and validate the choices. By initially approaching the problem as a group helps establish greater confidence in the students as they begin researching on their own. Afterwards, the students will create moodboards and design briefs to document their plan.

During the "create" phase, students are guided to stick to their established plans as they design solutions that utilize appropriate software and techniques. Students' solutions have run the gamut from food to hardware supplies to toys and gag gifts. I have especially enjoyed the inventiveness demonstrated with the "kits." Examples of student work are below.

"MONKEY MUNCH" BY RYAN McDONOUGH

"ESSENTIALS NO. 5 HOT CHOCOLATE" BY KRISTA MACKNOVITZ

"VANTO RED WINE" BY ANNA GIANGIULIO

"SURF SALT WATER TAFFY" BY STEFANO COSINI

"ROXY'S WHITE TRASH" BY MARCY McCONNELL

"CRAYOLA CRAYONS" BY THOMAS HALE

"CANARY GARDEN ZINNIA" BY JAMIE GENTILE

"UGLY SWEATER COOKIE KIT" BY NATALIE ALARCON

"PAPA BEAR'S HUNTING KIT" BY STACIE ROLLER

"SUNKISSED SUNCAN" BY KRISTA KROSLOWITZ

"PINHOLE CAN-MERA" BY NICHOLAS PLATT

"HOLE IN ONE PUTTING KIT" BY ELIZABETH LIVINGSTON

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PROJECT: Fair Trade Product Development & Package Design
[Problem: Randomly Selected Parameters]

In Fall 2015, I replaced the Can Assignment with this next project. It is a deeper exploration of problem-based learning as it applies to product and package design. With this assignment, students are to create a fictitious product that incorporates an assigned continent and target audience with a fair trade commodity of your choice (e.g. South America + 18–34 demographic + sugar = Paraguay Sugar Scrub). Students are to incorporate cultural aspects of their assigned continent into the product (e.g. name, colors, textures, imagery, etc.). In addition, the design concept must be unique and effectively link the product to the assigned age demographic.

Each student is randomly handed an envelope with index cards inside. One index card has a numbered list of continents, the other card has a numbered list of demographics. Then students rolled dice and opened their envelopes to determine the continent and age demographic that would be the focus of their projects. The selected continent determines their choice of fair trade commodity. Each continent offers several fair trade commodities to choose from.

Their products must be packaged in some form of a container: bottle, canister, box, etc. Students were asked to think about products with problematic packaging. What improvements could they make? Would certain packaging lend more to a particular demographic. Students had to create or acquire their physical container since the final design solution must be represented with a three-dimensional comprehensive.

Objectives

- To apply creative problem-solving skills to determine a product.
- To create a product and package design for an assigned target audience.
- To construct a unique design that explores containers and the 2D & 3D qualities of packaging.
- To incorporate cultural aspects of an assigned continent into the product.

To start off this assignment, we began to unpack the constraints and opportunities. Using the website, www.fairtradeusa.org, students began breaking down their problem as follows:

1. List countries in assigned continent
2. List Fair Trade commodities available by country
3. List products that use your Fair Trade commodities
4. Highlight products that would potentially appeal to their assigned age demographic
5. Circle products that would be unique to their portfolio

After students explored the initial findings in class, they vetted the results. Students weighed in on the viability of peer choices by answering the following prompts.

6

Does this product meet the continent and commodity requirement?

Does this product appeal to the assigned age demographic?
How do we know that? How will we validate this decision?

What other demographic factors will influence this product...
gender, income, education, and ethnicity?

Once the initial groundwork was laid for the problem, the students began researching independently. Their acquired knowledge was integrated into a concept and documented in moodboards and design briefs. After well-thought plans were devised, students began implementing their ideas into visual solutions. Here are two examples of student work.

"PASIÓN BATH SALTS" BY LINDSEY PILLER

"CLEAN BEE HONEY SHAMPOO" BY KYLE WIMMER

I have faced some challenges with these assignments. But the challenges I have encountered are precisely why I use this pedagogy. The first challenge has been student resistance due to lack of interest in subject. I show students how they can craft the project into their world view. What and who do they care about? How could this benefit them? This helps build student investment and broadens their perspective. The second challenge has been limited critical thinking skills. As I mentioned earlier, students aren't entering (or exiting) college with strong problem-solving skills. I feel it is important to model and facilitate participation in several ideation methods with the class. Again, repetition leads to understanding and mastery. Students are demonstrating stronger concepts in their work since I have been incorporating more distinctive assignment parameters and emphasizing the "exploration" phase with group activities.

Prior to implementing problem-based learning, my parameters for student projects focused on the type of deliverable, size, color, imagery, and software used. These requirements did not directly relate to creativity nor promote an objective assessment of it. By implementing a problem-based learning approach and defining creative constraints, I can nurture ideation, facilitate concept development and evaluate the creative merits of student work more easily.

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24 Delete the Code, Design the Mode

Abstract

Students don't actually design real products and services. So why do we try to teach design students how to code interaction design projects?

In all design projects we ask students to create a proof of concept — a prototype. For a project like a magazine we might have them make one final prototype, but we don't ask them to print 100 or 10,000 copies on high-end printing presses. Why should we require a fully-coded website? This requirement is problematic for a few reasons. 1.) The instructor now takes on the role of a programmer, troubleshooting coding errors; 2.) Most students become very frustrated, and 3.) The technology is emphasized over design.

This dynamic has been brought about due to the history of design programs wanting, rightfully so, to provide their students with web design skills. HTML and CSS might be accessible to some design students, but what if we want them to design a responsive website, a mobile app, an augmented reality app or even a virtual reality app? Teaching design students how to code will not be sustainable as new design challenges work their way from the profession to the classroom. If we are to engage our students in current and future interaction design projects then we have to let go of the notion that they need to design and code the project. Instead we should require the student to prototype key user flows of a digital product. This allows the student to focus on the design thinking and presentation of the digital product concept to a web/app developer.

In this paper I will look at the connections between the current and emerging responsibilities of the UX/UI designer in the profession and the time-tested graphic design principles already embedded in design programs as well as various prototyping options that allow for greater student success in this area of design.

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In design projects we ask students to create a proof of concept — a prototype. For a project like a magazine we might have them make one final prototype, but we don't ask them to print 100 or 10,000 copies on high-end printing presses. Why should we require a fully coded website? This requirement is problematic for a few reasons. 1.) The instructor now takes on the role of a programmer, troubleshooting coding errors, 2.) Most students become very frustrated and stressed, and 3.) The technology is emphasized over design and design process. In place of this our students should be creating interactive prototypes that show how a user interacts with the digital product. Focusing on the interface, interaction, and user experience design principles and process is more integral to and sustainable in a graphic design curriculum than trying to teach code.

In the mid to late 1990s as the browser wars were taking place traditional graphic design programs needed to keep current with technology and design trends and thus started to offer web design courses that made the promise that design students would be able to design and code their own websites. This made sense because as print designers we could see the parallels of the printed page and the webpage. We then made the logical next step to assume, incorrectly, that if we could produce a production-ready file for our printed pages we as designers should be able to develop a production-ready webpage. And then we started asking our design students to do this. Courses with titles like "design for the internet," "web design production," and "web design development," delivered projects that focused on HTML, CSS, Actionscript and in some cases Javascript, and PHP. This may have been fine for Web 1.0 when most of the websites on the internet were just static pages of text and image (including a few animated GIFs and videos), but soon after the web evolved into more of a user experience and less of a reader/viewer experience. Today of course there are many more forms of user experience than just a website in a browser and thus many more opportunities to explore this area of design education. Responsive web design (RWD), web applications, mobile apps, augmented reality (AR), virtual reality (VR), interactive advertising, kiosks, wearable tech, and video gaming projects all require the skills of a interface, interaction, and user experience designers. These opportunities were either in their nascent stages of experimentation or did not exist 20 years ago. Yet many design programs still hold on to this legacy.

We know as educators that there is a difference between knowing something and teaching something. Many design faculty may know how to code a website, but are they the best people to teach programming? Ideally, a team-taught interaction design course would work best for both faculty and students where one faculty teaches the design and the other teaches the code. This is not the case in most design programs. At my own institution students are required to complete a computer science course. Some learn html and css, while others learn 3D modeling, or even database creation. Expanding this into a dual degree or minor would be an option for some students. If we're looking at a traditional visual communication curriculum there are many challenges that face the design educator trying to teach coding in that context. First, the programming languages tend to be focused on website development. This restricts the opportunities of designing for other types of interactive projects. Second, the challenge of learning a coding language in a design course tends to be frustrating to the student when they have been introduced to new interaction design principles of triggers, rules, and feedback that they want to visualize but can't because learning the code is getting in the way. This leads to a third result of teaching code where the faculty, if knowledgeable, plays the role of developer and troubleshooter. This is not education. When a student working on typesetting a paragraph notices the rivers of distracting whitespace on the page we don't fix it for them. We ask them to analyze the typographic details that are causing the rivers so they can fix the issue themselves. Lastly, all of this emphasis on the code takes time away from the design process and skills that where introduced in preceding courses, that can lead to stronger outcomes in subsequent courses, and directly relate to many of the skills employers are looking for.

Instead of trying to introduce code into the design course we should strengthen the skills that closer align with the our existing design curriculum. There are some major areas in UI and UX design that have done this in the last 10 years. Probably the most relevant is the implementation of the grid. Whether we talking about a responsive website, mobile app or a game interface the grid structure needs to be established to provide for various content types and screen sizes. There is also the design challenge of visual

language and branding as it relates to the user interface and user experience. We can also build on the area of sequential design and its aspects of pacing and rhythm while adding the interactive element of choice within a sequence. Deciding how to present information is not just for info-graphics but is crucial to small screen design problems that require an economical use of space. Sketching in the form of storyboards is an essential part of the interaction design process, whether we design the user flow or the motion of a button. Then there are two essential skills related to the prototyping of the project—writing and speaking. The designer must clearly document the interaction and motion details of the digital product in order to effectively collaborate with the developer. The crucial final stage of the process is the culmination of all the design skills and the soft skill of public speaking packaged into a prototype presentation that will ultimately be valuable to the student in other scenarios involving co-workers, supervisors, collaborators, freelancers, and clients. In other words, can they sell the idea? Is the project believable?

These skills closely align with the many descriptions of user experience and user interface designers in the profession today. Terms such as wireframes (grid, sketching, information design), storyboards (sequential design, sketching, writing for explanation), information architecture (information research, information design, diagramming, writing for labeling), personas (audience research & writing user stories), usability tests (audience research, user goal testing, presentation skills, documenting feedback), interaction design (creating triggers, rules, feedback), user interface (typography, color, image, graphic elements, user interface patterns, visual language system), and prototyping (user goal visualization, presentation skills) are typically listed as the core deliverables. Applications such as Photoshop, Illustrator, Sketch, InVision, After Effects, and KeyNote are often noted as preferred tools for design and prototyping.

Because these deliverables/competencies and production tools are at the core of existing design courses they can be applied to a greater range of existing and future interface and user experience design problems that, if coded, require more than HTML and CSS. Exciting new course projects in the areas of responsive web design (RWD), web applications, mobile apps, augmented reality (AR), virtual reality (VR), interactive advertising, wearable tech, kiosks, and video games could be concepted and prototyped by a visual design student, but rarely, if at all, coded. The tools now available to create prototypes are so varied that any graphic design program no matter the size or curriculum or technology restrictions can find something that connects with aspects of the existing curriculum. They range from the non-interactive: After Effects, Powerpoint, KeyNote to hotspot-focused: POP, InVision, UXPin to print-related: Adobe DPS (within InDesign) to the more robust options that have been developed for user experience design: Google Web Designer, Muse, Animate, Reflow, Adobe XD, Proto.io and Pixate.

The AIGA's document outlining the Designer of 2015 lists prototyping as a number two key competency (ranked in order of importance) that students should have upon graduating. The many skills associated with prototyping will translate to other areas of the student's career path and will outlast the skill of learning a specific programming language. There very well may always be a few design students interested in learning the code behind the design. What is ultimately more important is the concepts associated with the code like the separation of content and design or visual feedback or flexible grids. This way of thinking about content and media will provide the student will a framework to consider new ideas for new user experiences that we haven't even thought about. In other words, it will allow them to be nimble.

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25 Collaborative Visual Narratives: Designing Games for Public Spaces

Moon Jung Jang
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Abstract

Creating games for public spaces requires designers to understand public spaces in cultural, social, physical, tangible, and practical aspects and to have more systematic approaches than fixed graphic design solutions. When games built with graphic systems are set in the spaces, people play them, experience collaboration, and generate visual stories simultaneously. This study focuses on how games for public spaces can generate collaborative visual stories and effects. It aims to understand public spaces within graphic design and to experiment with graphic systems as tools to create visual narratives in the spaces. It explores various design approaches such as participatory design, conditional design, and methods of action such as addition, elimination, and discovery to create collaborative visual stories.

The processes of creating the games were first developed in a studio course at the art school. The methodology was built in the following stages. In the first stage, the participants observed and analyzed the uses and physicality of the spaces and user experiences. Then, they defined the spaces and investigated game principles, rules, and materials. Next, they created new games based on the analysis and built visual systems. Finally, the games were demonstrated and the instructions, manuals, and promotional matters for players were designed.

As a result, in the collaborative effort, the games, CUBE3, MAZE, Unraveled, Quest, and INKD, were designed and functioned as tools to build visual narratives in the art school, to understand diverse community members, to make the participants more interactive, and to discover new information about visual resources in the art building. The design outcomes resulted in collaborative visual narratives of temporal sculptures, patterns, and collective journeys that showed active uses of color and space as visual systems and evidence of graphic design as a social act.

26 Teaching Theory, Research and Writing in Design: Some Observations

Meredith James
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Abstract
As the field of graphic design continues to shift from heavily reliant on practice to a more balanced reflection of practice and theory, the incorporation of theoretical concepts, research-driven processes and critical writing has become increasingly necessary. Additionally, with today's complex and interdependent global community, designers are implicitly required to be informed of these concepts and how they influence the many social and cultural dimensions that frame a contemporary practice.

This paper discusses some observations on integrating theory, research and writing into design curricula, as undergraduate education is the environment best suited to respond.

27 Print is Not Dead: Teaching the Medium in Print Design

Doris Palmeros
University of the Incarnate Word

Abstract
Brief
Technology has greatly helped designers conceive and execute ideas digitally with computers. However, many students enter design programs with software skills, but little understanding of the medium of commercial printing and print production. Moreover, many design programs do not have the space in their curriculum to have a dedicated class on print production. Artists know that understanding the medium they work in, whether that be watercolor, oils, or clay, is essential to producing great work. The more the artist understands and masters their medium, the more they can push the boundaries conceptually. Print production is the medium for all print related graphic design. Teaching this aspect in graphic design thus helps design students think more purposefully and understand the parameters and possibilities of the medium.

Process
Incorporating print production techniques and methods into projects to help students utilize various aspects of print production. I create hands-on assignments to teach my students the essential techniques of print production, specifically projects that utilize CMYK process printing, registration/off-registration, overprint, knock-out, and separations. Using the technique of Xerox-transfers, I am able to simulate the printing process using color laser printouts. These printouts are separated into cyan, magenta, yellow and black plates. The translucency of the Xerox-transfer is comparable to that in CMYK offset lithography. Utilizing this technique my students are able to create an immediate simulation of techniques found in print production.

Effectiveness
Connecting these more tangible concepts to real world printing scenarios greatly helps the students to make better real world applications when designing on the computer, and designers that know their print medium are able to push the envelope in print and in design concepts and to become more integrated, competent and confident designers.

28 PrEP and Private School Students: Service Learning and Public Health

Neil Ward
Drake University

Abstract
What is the relationship between context and the design process within service learning? In an effort to explore this connection eight senior graphic design students at Drake University had the opportunity to work with a local non-profit, Project Healthy Iowa Male (Project: HIM), on a public health campaign for PrEP (Pre Exposure Prophylaxis. aka Truvada). PrEP is a prescription drug that protects against the transmission of HIV with an efficacy rate of 92%.

Students were responsible for research and becoming subject matter experts across disciplines such as advertising, marketing, LGBT history, and psychology. A class visit to the Project: HIM testing center resulted in a paradigm shift after students experienced first hand how an individual is tested for HIV and how they would obtain a prescription for PrEP.

Armed with this knowledge (and directed by the professor), students developed a brand identity with an overall message that promoted PrEP to the target demographic. This project was launched in the Spring of 2015.

This session aims to discuss:
- the evolution of student attitude toward PrEP and public health
- the influences of working with a client
- the handling/receiving/communication of sensitive content
- successes and pitfalls of service learning with a community partner

29 Experience By Design: A Pedagogy of Presence

David Kasparek
Messiah College

Abstract
How can the process of design deepen students' understanding of place? Can creative inquiry and problem solving cultivate a more immediate experience of presence? In the spring of 2015, I developed and led 14 students in the course *Experience By Design* to explore these and other questions at a study abroad program in Orvieto, Italy.

The course consisted of three design projects: a multifaceted collage process that utilized images/artifacts referencing Orvieto; a typographical landscape survey and typeface design; and an environmental type project. Through this design work, students considered concepts of representation, memory, identity, text, and place as they investigated and represented the town and their experiences in Orvieto. The multiple compounding phases of projects encouraged students to focus intentionally on their context and get lost in the present "design moment" rather than designing for a preconceived end result.

Orvieto—with its rich history represented in buildings, spaces, images, artifacts, signage, etc.—became the course content and setting where students creatively probed and gave tangible form to their experiences through the creation of design artifacts and visual explorations.

Key themes of this presentation include:
- The pedagogical design of creative projects and a classroom environment that enhance students' experience and creative process to help them remain focused in the moment and foster a sense of place/presence.

- The extreme limitation of technology in this course and how it produced surprisingly innovative work and a sense of presence through a more unmediated, hands-on design process.

- Generating discourse and creative thinking regarding the process of design. I created the DesignedStories.com website to highlight the projects of this course (and future courses) and focus on the process of design as the primary activity in design education.

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Experience By Design: A Pedagogy of Presence

What is graphic design? This is the first question I ask my students when I begin the course Typography and Visual Communication. I always hear something like: "making images and messages for clients on a computer." Then I ask, "Can you make graphic design without a computer?" I'm met with a confused silence. This signals that the digital media as become THE identifier of graphic design practice. This assumption results in a default way of working and is creating a default way of thinking in which the internet is the source of all design research and thinking. Likewise, the computer is the starting point of any design process.

By saying, this I am in no way advocating for the removal of digital labs to go back to the days of rubylith and type spec'ing (my education was at the tail end of that and I am happy it was replaced with such digital tools). I am, however, looking for appropriate and critical ways to respond to the sea of digital media that our students are working AND living in. The days of the computer being "just another tool for designers to utilize" are over. Digital media is now the context that shapes and dictates the terms of the creative process for so many of our students. This context cannot go unchallenged.

As a design educator, I want to create a learning environment and pedagogy that is grounded in a sense of presence. It is my belief that digital media is the antithesis of presence. Especially if it is not critically engaged or questioned.

As Sven Birkerts says in his book *Changing the Subject: Art and Attention in the Internet Age*. **"The technology stains the moment with its disconcerting transmission of "elsewhere..."**[1]

What is the nature of *elsewhere*? And how does it relate to presence? Building off of Birkerts' critique, I have found that there are two states of *elsewhere*. The first type of *elsewhere* is **VIRTUAL**. This virtual elsewhere can best be represented in a common Mac workstation found in many colleges and university design programs.

Some characteristics of virtual elsewhere that I have observed as a design educator include:

- **Endless data and information that evolve faster than the user.**
- **Meandering with no destination.**
- **Access to everything but interested in nothing.**[2]
- **Seamless embedded distraction.**

The second type of *elsewhere* is **TANGIBLE**.

A good example of a tangible elsewhere would be an easel with a canvas on it for drawing and painting. Some characteristics of a tangible state of elsewhere are:

- **Palpable place**
- **Mediated by physical artifacts**
- **Participant is grounded in a tradition of making (where the user evolves and grows and the media or medium is relatively constant)**

As a way to help my students critically recognize the nature of digital media, I asked them to imagine themselves working in the painting and drawing studio with an easel and drawing board. I then tell them to imagine pop-up ads, email notices, chat notices, etc., suddenly appearing on the image as they are drawing. Of course, this is absurd in a *tangible* elsewhere but it is normal and expected in the *virtual* elsewhere that they so often work in as students.

Again, I am not advocating that students totally remove themselves from the powerful digital media that dominates the professional practice of graphic design. Technological innovation has, and will always be, important in graphic design. But I believe that innovation is not solely achieved by rejecting and destroying past practices and traditions. Rather, meaningful innovation is often embedded in tradition.

As a tangible example of this, I would like to share a teaching experience I had in Orvieto, Italy, in the spring of 2015.

This study abroad program is facilitated through Gordon College, with which my institution has had a partnership for about 18 years.

The Orvieto program aims to "...foster in our students an attitude of responsive looking and listening for signs of new life in the traditions inhabited by artists, poets, saints, and mystics of the past..."[3]

The very philosophy and place of the Gordon IN Orvieto Program represent the best possible example of **TANGIBLE** elsewhere that is infused with presence. This sense of presence is facilitated and promoted in several ways:

- **The structure and living environment of the Gordon IN Orvieto Program is modeled after monastic life. Therefore, a contemplative environment is embedded in the experience of the program.**
- **The program does not have a computer lab (although students are allowed to use their laptops).**
- **The internet is only turned on from 9 p.m. to 11 p.m.**

On the surface, these might sound like restrictive limits (both to the students and the faculty who teach there) but I believe this is one of the strongest aspects of the program. The limits are not *restrictions* but a *context* that organizes and facilitates exploration. And this fosters a deep sense of presence in the design process.

As an example of this process, I would like to share one of the projects from my course titled Experience by Design.

The first project, titled the "Visual Language Project" was made up of six compounding phases (each phase building on the previous phase). Each of the phases was a surprise to the students.


fig. 1

Phase A: Investigate and Research—The Visual Language Of Orvieto

For this phase students collected or made two-dimensional artifacts such as drawings, paintings, rubbings, found printed artifacts, words/poetry in visual form that was collected from around the town of Orvieto. Students organized all their artifacts on sheets of paper (see fig. 1).

Phase B: Image Boards—Aesthetic Organization


fig. 2

Students aesthetically organized elements from the phase by identifying visual connections and relationships in their collected and created artifacts and images. Students then created a series of five image boards at two specific size options (letter or tabloid size). We held a class critique, and students then selected image boards from two of their fellow classmates. At the end of this process, each student had two have their own image boards and two they did not create resulting in a new set of four image boards for each student (see fig. 2).

Phase C: Creative Editing—Simplification and Structure.


fig. 3

For this phase of the project, students created a series of five high contrast ink drawings based on architectural forms in Orvieto (sites of their choosing). Emphasis was placed on minimalism and simplification of elements to their bare visual essentials (see fig. 3). After a class critique, we selected the strongest image from each student. I then provided students with a 9 x 12" white envelope. Students transferred their selected ink drawing to the outside of the 9 x 12 white envelope (see fig. 4). I then asked the class to place their least favorite drawing from Phase C (minimalistic ink drawing) as well as their image boards from Phase B into the envelope and then sealed it. I then told them to cut along the lines of their minimalist drawing on the outside of the envelope with an X-Acto blade (making sure they cut entirely through the envelope).[3] This resulted in many different image fragments varying in shapes and sizes (see fig. 5).

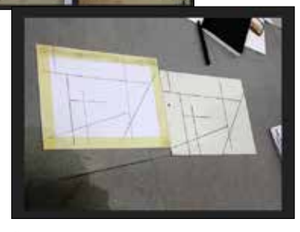
fig. 4


fig. 5

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MAY 31, 2016 **David Kasparek** - *Associate Professor of Graphic Design* - Messiah College, Mechanicsburg PA


fig. 6

Phase D: Synthesis, Collage, Formation Of Meaning

The image fragments from Phase C became the raw material for a series of 10 well-refined collages that worked as individual compositions and together as a series. At this point in the process, the collages were becoming cleaner—more refined in craft and presentation (see fig. 6).

Phase E: Collaboration And Communal Experience

For the final phase, all the students would work together to create a single piece from all their individual collages. Students were introduced to Charles and Ray Eames's *House of Cards* project. This modular image game would be the means and structure by which the entire class would join all their work—the combination of previous phases of the project—into one piece. On a conceptual level, the process represented the communal, or collective, experience of living and learning in Orvieto. The students worked together for the rest of the day to complete the final piece. The final critique of the project was scheduled for the following morning at the start of class (see fig. 7).


fig. 7

This type of hands-on, material-driven creative process was also present in the other two assigned projects for the course. What I and many of the students took away from this was a deeper sense of presence in the creative process of design. My experience as a design educator was that it was one of the most engaged group of students I have had (in any course) for about eight years. The students in this course are not much different than the ones I have been teaching back at my institution for over the last 16 years. But I asked myself, what are the factors for such an engaged class experience? I believe there are several reasons for this.

1. Well… We *are* in Italy. Who wouldn't have a wonderful learning experience surrounded by so much tradition and beauty? A 'tangible elsewhere' at its absolute best.
2. Students only had this one course four days a week from 9 a.m. to 12 a.m., so there are no distractions and demands from other courses.
3. The assigned projects directly and physically engage the place of Orvieto. Students communicate their experience from that content/place.
4. But I believe the main factor for the enhance focused and engagement was:
   - minimal digital distractions (no access to the internet, limited smartphone access)
   - the embrace of a hands-on, tangible creative process.
     (with any digital media in a supportive role to the process).

So I asked myself how can I bring this pedagogy of presence from *there* (Orvieto) to *here* (my own institution)? After doing the Experience by Design course in Orvieto I have implemented several practices in all my courses I teach at Messiah College this academic year.

These practices are:

- Add elements of surprise to projects.
- Foster a sense of play in the design process.
- Confusion is underrated. It is okay if the students have no idea what they are doing or what the end result should be.
- Connect tradition with innovation.
- Reward the lost art of resourcefulness. Maximize creativity within limited choices

I have implemented several policies in all my courses this academic year:

- No phones in the studio
- No internet (block out dates in class calendar)
- Get Lost! (get off campus and out of your everyday context)
- Get lost in this wonderful place called a library (connect with peer-reviewed/edited design content)
- The first assignment in every course: Print Syllabus (Hard copy. NOT virtual/digital copy)

All of these items were graded in relationship to students participation/engagement in my course (Graded twice a semester— Mid semester and final).

As a result of implementing these methods and policies, I have seen an increased sense of presence in the creative process and this has resulted in a higher engagement, productivity, and stronger work from students.

ENDNOTES

1. Sven Birkerts, Changing the Subject: Art and Attention in the Internet Age (Minneapolis: Graywolf Press, 2015), 16.
2. This is a statement from my colleague Daniel Finch, Professor of Drawing and Painting at Messiah College.
3. "Vision IN Orvieto." About Gordon IN Orvieto. Accessed May 28, 2016. http://www.gordon.edu/orvieto/vision.
4. The idea to cut through an envelope with other materials inside was from Elliott Peter Earls, when he was a visiting designer/critic at the graduate program I was in at the time (in the late 90s) at the College of Design, North Carolina State University, NC.

30 Creativity Workshops: Breaking from the Structure

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Abstract

Effective design practices require creative activity to develop successful solutions. As Dr. Gary Brown notes in his recent interview with Distinguished Professor Robin Landa in her book *Nimble*, "Play, by definition, is creative activity; it always involves an element of imagination…Many research studies have shown that people think more creatively and produce more creative products when they are in a playful mood than when they are in a more serious mood." [1] Later in the interview, Dr. Brown notes, "In our culture, fear of others' judgments and fear of failure…are the biggest inhibitors of creativity. The playful state of mind is one in which such fears are set aside." [2]

Our school celebrates creativity by fostering environments where students are invited to embrace the playful state of mind. Over multiple semesters, our school has implemented creativity workshops for our design students outside of the normal course structure. During fall semesters, two days have been set aside for students to participate in workshops provided by faculty, invited professionals and students. This year, faculty members across the design and architecture disciplines and professionals from a variety of disciplines were invited to participate. Students were encouraged to take a break from normal activities, get exposed to new technologies and techniques, and share passion projects. The workshops have become an opportunity for students to supplement their education and network in a more open format.

Did these workshops spark creativity and insight in the students' areas of study? Did students feel that they were opened to skills and content considered outside of their area? These are two of several questions that were asked in this year's participant survey. This paper provides an analysis of the survey results, reflections of faculty from the workshops, and a collective response to the value of creativity workshops in design education.

[1] Landa, Robin. *Nimble: Thinking Creatively in the Digital Age.* Cinnicinati: HOW Books, 2015. Print.
[2] Ibid

Thinking Creatively Workshops: Breaking from the Structure

Peer-Reviewed Paper
2016 University & College Designers Association Design Education Summit

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INTRODUCTION

Effective design practices require creative activity to develop successful solutions. As Dr. Peter Gray notes in his recent interview with Distinguished Professor Robin Landa in her book *Nimble*, "Play, by definition, is creative activity; it always involves an element of imagination…Many research studies have shown that people think more creatively and produce more creative products when they are in a playful mood than when they are in a more serious mood." [1] Later in the interview, Dr. Gray notes, "In our culture, fear of others' judgments and fear of failure… are the biggest inhibitors of creativity. The playful state of mind is one in which such fears are set aside." [2]

The Robert Busch School of Design within the Michael Graves College celebrates creativity by fostering environments where students are invited to embrace the playful state of mind. Over multiple semesters, our school has implemented *Thinking Creatively* workshops for our design students outside of the normal course structure. During fall semesters, two days have been set aside for students to participate in workshops provided by faculty, invited professionals, and students. This year, faculty members across the design and architecture disciplines and professionals from a variety of disciplines were invited to participate. Students were encouraged to take a break from normal activities, get exposed to new technologies and techniques, and share passion projects. The workshops have become an opportunity for students to supplement their education and network in a more open format.

Did these workshops spark creativity and insight in the students' areas of study? Did students feel that they were opened to skills and content considered outside of their area? These are two of several questions that were asked in this year's participant survey. This paper provides an analysis of the survey results, reflections of faculty from the workshops, and responses to the value of creativity workshops in design education.

SURVEY RESULTS

A survey was created using Qualtrics to gather information about the workshops. All students who participated in the workshops were provided a link to the survey with a brief statement, which explained that their responses were anonymous. There were 42 respondents to the survey. 88% of the respondents attended the workshops. Below are some of the questions and results from this survey.

Did you enjoy these workshops collectively, and did they spark creativity or insight in your area of study?

- 83% of the respondents answered "Yes."

[1] Landa, Robin. *Nimble: Thinking Creatively in the Digital Age*. Cincinnati: HOW Books, 2015. Print.
[2] Ibid

Respondents were asked to briefly elaborate on how these workshops spark creativity or insight in their area of study. Below are several of the responses.

- "The variation of fields/industries opened my mind to making connections between what I am doing in relation to what others are practicing."
- "Opened my mind to more innovative methods if creation."
- "Experience in areas I have little knowledge of gave me new aspects to involve with my designs."
- "The workshops help loosen up our creative skills in a more playful atmosphere rather than academic."
- "Workshops gave me insight on areas I was not familiar with."

Did the Thinking Creatively workshops open you to skills and content considered outside of your disciplinary area?

- 81% of respondents answered "Yes."

Did you interact with students outside of your disciplinary area in the workshops?

- 69% of respondents answered "Yes."

Did you increase the number of students or professors that you feel a connection with and can go to for further help in or out of class?

- 54% of respondents answered "Yes."

The respondents were asked to provide suggestions for this workshop series moving forward. Here were some of their responses:

- "Varied types where you can physically create something."
- "More agency designers to speak about their lifestyle and how they go about their day."
- "More digital design-related workshops (web/mobile/etc.) because that industry is thriving right now."

On the following pages, you will find individual accounts and reflections of *Thinking Creatively* workshops and the survey results.

Designing AR/VR 360° Experiences

Ed Johnston, Assistant Professor
Eric Vita, Student Researcher
Robert Busch School of Design, Michael Graves College, Kean University

Thinking Creatively Workshop Account and Reflection

In my workshop "Designing AR/VR 360° Experiences," students learned how to use augmented reality (AR) on their own designs and images. Also, they gained exposure to 360-degree imaging and how it can be used in immersive virtual reality (VR) platforms, such as Google Cardboard. This workshop enabled me to share my collaborative research, which I have been doing with design student researchers Eric Vita, Erica Whyte, Christina Galera, and Mark Matarese. It gave me the opportunity to get more students interested in my research and in my special topics course involving AR and VR.

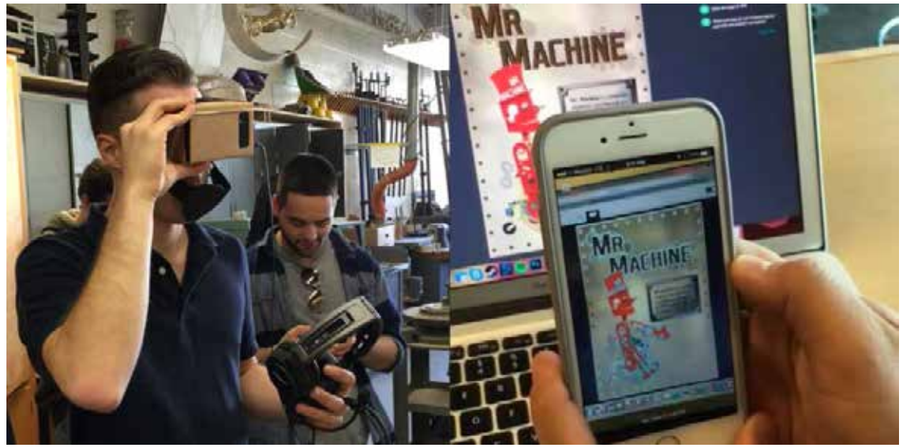

Figure 1. Moments of collaborative research with students involving AR and VR technologies

Reflection on the _Thinking Creatively_ Workshop

The *Thinking Creatively* workshops gave everyone the opportunity to connect in a more playful way without classroom constraints and expectations. The open format gave students and faculty the opportunity to connect in a more informal, collaborative environment. The workshop format allowed students to be more open to exploration. The workshops also allowed faculty to have time to connect with each other and learn about what other faculty are interested in.

Figure 2. Professor Johnston interacting with students about research

The workshops added another level of community building for a creative environment. While the classroom environment may require more formalized expectations, the workshops are helpful for everyone to collectively see and understand that everyone in the school is creative and wants to explore and support creative ideas and production. The workshops reinforce and bolster a collective, creative spirit that is essential for strong innovative work to happen in an educational environment.

Reflection on Survey Results

I was glad to see that roughly four out five respondents enjoyed the workshops, found some inspiration in them, and were opened to skills and content outside of their disciplinary areas. Also, I was excited to see that a majority of the respondents interacted with students outside their disciplinary areas and increased the number of students or faculty with which they could connect. From the suggestions, some takeaways are to provide more hands-on experiences, bring in and involve more industry professionals, and find ways of repeating sessions.

Eric Vita's *Thinking Creatively* Workshop Account and Reflection

One of my biggest, life-changing events was when Professor Ed Johnston asked me to work with him on the Liberty Hall Museum Project. This was my first real chance to practice and experiment with augmented reality (AR) and virtual reality (VR), and it came with great success. After giving anonymous surveys to museum visitors, it was clear that our work enhanced the experience of a majority of visitors. Specifics about our findings can be found in separate publications. This project inspired me to explore AR and VR further as methods of content delivery for other projects.

Soon after my experience with Liberty Hall, I thought of new ways of pushing the limits of what we had already done. I soon came up with an idea to make a guided virtual tour, and with that, the idea of GVR Marketing Group was born. GVR is a business, which I created by expanding upon techniques I learned from the collaborative Liberty Hall research projects with Professor Johnston. While the idea was still growing, I decided that I should take in as much information as I could about virtual reality.

Fortunately for me, Kean University held the *Thinking Creatively* Workshops. It was there that I was exposed to AR and VR, and it was where I was also able to refine my ideas. I was able to see the interest of other students in the subject and learn new techniques. Since this is a relatively new subject to work on, it was a great opportunity to gain more information firsthand. This helped me develop more ideas for my company until it was ready for business. GVR is now a functioning company that offers a type of marketing to houses and businesses that many other companies cannot do. All of this happened because of the things I learned outside the classroom with Professor Johnston and the *Thinking Creatively* Workshops.

Both AR and VR have become important components in my design work. Even though these technologies are still emerging, they hold so much potential to bring a whole new sense of presence into a project. This inspired me to look at and think about concepts in a new way. What if the poster came to life? What if the business card talked to you? What if the advertisement reached out to you? The possibilities are exciting.

The Business of Design

Denise Anderson, Assistant Professor
Robert Busch School of Design, Michael Graves College, Kean University

Thinking Creatively Workshop Account and Reflection

Students often take on freelance projects with little to no knowledge of how to manage the business aspect of it. My workshop, "The Business of Design," provided students with practical information on how to initiate and manage freelance design projects. My presentation addressed three areas: getting paid for what you are worth; treating every client as your favorite; and protecting yourself legally and financially. Specific areas of focus included establishing project rates, writing the proposal, and managing clients.

In the classroom, students spend the majority of their time and effort learning design theory and how to be successful designers. My workshop exposed them to professional practices: what they should know to be successful design practitioners. By adding real-world skills to their academic knowledge, the students gain insight into the design industry experience and become more adequately prepared to make their transition into the professional world. My presentation consisted of PowerPoint slides and a handout that listed design resources in the areas of books and websites, as well as professional services in legal and accounting.

Reflection on the *Thinking Creatively* Workshop

I conducted this workshop twice during *Thinking Creatively* week. My audience spanned every design discipline (advertising design, graphic design, interior design and industrial design), but the majority of participants were graphic design students. Throughout the two-day sessions, students shared with me that they enjoyed the other non-design and creativity workshops, but gained knowledge and resources in this workshop that was more practical and tangible. Their comments indicated that, by better understanding the business practices associated with freelancing, they learned valuable skills and the confidence to seek future projects.

Feedback from the workshop inspired me to start a group for design students: "The Design Entrepreneur Club." The purpose of the group was to teach students best practices for freelancing, and to highlight a student design freelance project for the purpose of discussing particulars. The meetings, conducted one lunch period every two weeks for 45 minutes, were moderately attended (5-15 persons) and were only held for one semester (Fall 2015). Additionally, some students requested that the school offer a class focusing on the "business of design," but as of May 2016 a course has yet to be developed.

Reflection on Survey Results

One purpose of the *Thinking Creatively* workshops is to expose students to skills and content beyond their subject matter expertise. Business knowledge about freelancing provides students with valuable "inside knowledge" that equips them to be professional designers. Making the switch from the classroom to professional practice can be a daunting challenge for students who have spent the past few years mastering design thinking, technology, and the fundamentals of their craft. Intertwining professional practice and design theory can enrich students' educational experiences and give them an edge in the increasingly complex, highly competitive field they plan to enter.

Figure 3. Flier for The Design Entrepreneur Club designed by student Jesus Vega

Oculus Rift Workshop

Bekir Kelceoglu, Assistant Professor
Robert Busch School of Design, Michael Graves College, Kean University

Thinking Creatively Workshop Account and Reflection

Oculus Rift is consumer-level virtual reality (VR) equipment, which was invented with gamers in mind. It has been available to developers and consumers for several years. It has become very popular because of its relatively low purchase price, uncomplicated setup procedures, and good resolution options. As a VR enthusiast and researcher in VR/AR systems in architectural settings, I experimented with the Oculus Rift system in architectural walk-throughs and presented my preliminary studies in the *Thinking Creatively* Workshop Series in October 2015. The purpose of this study was to obtain student feedback and observe students' reactions to such technology in architectural/interior design. Ultimately, this pre-study was aimed to investigate whether Oculus Rift is suitable for environmental design curricula.

Reflection on the *Thinking Creatively* Workshop

As VR is relatively new and highly popular, participation in the workshop was quite satisfactory. A presentation was made at the beginning of the workshop, so that the participants who are not familiar with the technology received important background information about the technology. The presentation structure consisted of the following:

- Introduction to Virtual Reality
- Virtual Reality applications and examples
- High-End Virtual Reality gear examples
- Oculus Rift introduction and comparison with high-end models
- Demonstration details and discussions
- Question/Answer session

At the end of the presentation, a demonstration with Oculus Rift started. Interested students tried Oculus Rift in a pre-designed environment, which was a two-story residential condo unit with fully interactive light and sound.

Figure 4. Oculus Rift demonstration with students

Reflection on Survey Results

We understand that participants find these workshops very beneficial for their academic growth, even though most of them are outside the curriculum focus. Looking at survey results confirms that, as well. Even though, this particular virtual reality workshop was purely informational (not a hands-on creation process), most participants were pleased with seeing and trying the emerging technology. Most of the participant feedback is encouraging.

Storytelling with Movie Props

Christopher J. Navetta, Adjunct Faculty
John Weigele, Student Assistant
Robert Busch School of Design, Michael Graves College, Kean University

Thinking Creatively **Workshop Account and Reflection**

The session began in the only way it could have— with appropriate cinematic flare. My student assistant, John Weigele, and I marched through the halls of the 5th floor of GLAB, dressed in full Jedi robes, lightsaber hilts secured to our belts, and to the blaring orchestral accompaniment of John Williams' *Star Wars* score. That set the mood and the tone of what was to come. And after a good laugh and a couple of much-appreciated "oohs" and "aahs," I conducted a brief showcase of some film and television props— everything from mass-produced baubles to limited edition high-end collectibles to completely custom-made and handcrafted replicas. There was an immediate positive reaction to so many of the pieces. There was an immediate connection.

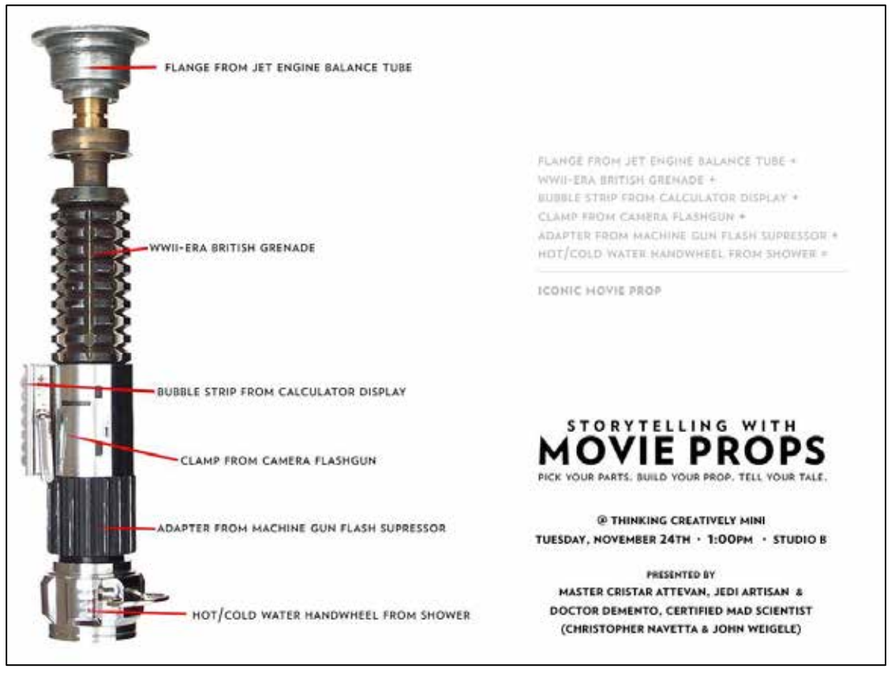

Figure 5. Promotional handout for the workshop

As I noted in the promotion of the session, some of the most iconic props in movie history were made from found objects. A button here, a bit from a broken piece of electronics there, and a dab of glue equal the stuff that movie dreams are made of. And that's exactly what can be created— even in the short space of time that was the *TC Mini* session. So on the tables in the studio was the most eclectic and random collection of (simply) *things.* Everything from toys to garden hose fittings to electronic devices to lights to toothpicks and popsicle sticks, rubber bands and glue, markers and paints were there as fuel for the participants' creativity.

And they just *went for it.*

Over the course of just over an hour or two, the participants concocted the most ridiculously creative objects, with equally fascinating stories to accompany them. There were monster detectors and eliminators. There were paranormal-detecting goggles that interfaced directly with the user's brain via biomechanical tentacles. There were reality-shifting mad scientist blasters. There were wrist-mounted light-beam-projecting crossbows. And perhaps owing a bit to the theatricality of the two Jedi hosts, there was even a lightsaber hilt.

As the participants worked, in the background played Rishi Kaneria's "Why Props Matter" video on Vimeo (https://vimeo.com/143619334), which explored the unquestionable importance of these designed objects in storytelling, as well the emotional connection we as the viewers have to them.

Reflection on the *Thinking Creatively* Workshops

There is more emphasis than ever being put on *storytelling* in the world of design. Everything from a logo to an advertisement to a piece of furniture seems to need some sort of story behind it that makes it relatable to the viewer/consumer/user. And I've always felt that there is no greater storytelling medium than film. It brings together almost every imaginable field of design. It's the great unifier. I once commented in an article that design trends, by their very nature of course, come and go. But in popular culture, there is something so permanent about film and the impact it has on us. Movies have been ingrained on our psyches, as it's possible for absolutely everyone to appreciate some aspect of film in some way. On-screen characters have become our heroes, dialogue has become our vernacular, costumes have become our everyday fashion, and props have become our gadgets. And the stories movies tell are our history, they're our mythology, they're our water cooler conversation.

Luckily for us, as designers, we cannot only react to these stories, but we can *create* them. In a standard design curriculum, this sort of project isn't always possible. But a venue like the *Thinking Creatively* workshops affords us the opportunity to break out of that standard curriculum and explore.

This wasn't about career-building. This wasn't about practicality and professional sensibility. This was about exploration. This was about fun. This was about telling a tale and then physically

representing that tale in a piece of tangible design and having a great time doing it. It was an exercise and an experience that allowed the fun to flow— something that is paramount to the health of a creative mind. An insightful man once observed that “the more complex the mind, the greater the need for the simplicity of play.” And yes, it was Captain James T. Kirk. Think of all the cool props he got to play with.

Figure 6. Workshop props in action!

Reflection on Survey Results

As with most of the sessions at the *TC Mini,* the group I had was diverse insofar as from which area of design the participants originated. Ages (or more accurately, levels) ranged from freshman to seniors, and there was a relatively even gender balance. We were even fortunate enough to have a few children participate.

I was understandably happy to hear the mostly positive reactions to not only my session, but to all of the sessions as a whole. Comments like, “Workshops like Movie Props sparked excitement through found objects and composition rather than design on a computer,” were similar to the suggestion that there the sessions should be of “Varied types where you can physically create something.” This suggests that participants enjoyed the hands-on physical nature of the sessions. Those comments certainly contrasted with the responses such as looking for “Only workshops students need for progressing their studies,” which suggest a more focused, practical route. My personal take is that there is room for both directions. But either way, it’s imperative that whatever the subject matter, whatever the presentational approach, future workshops should continue to present students with the opportunity to explore what isn’t always possible in the regular classroom setting.

Describe Design

Craig Konyk, Assistant Professor
School of Public Architecture, Michael Graves College, Kean University

Thinking Creatively **Workshop Account and Reflection**

In my workshop entitled *“Describe Design,”* I met one on one with each of the students to refine their design writing skills with an eye towards succinctness and clarity. Using the model of a 140 character “tweet” the students would bring a recent design project to the workshop and under my editorial guidance, they would craft a clear and focused description of their work. After working with the first few students I discovered the real necessity for the exercise for them professionally; a kind of written “elevator pitch.”

Figure 7. Professor Konyk exchanging with students during the workshops

Reflection on the *Thinking Creatively* Workshops

It is my opinion that there is a real necessity for any student to explore issues and ideas outside of and around their chosen discipline. In addition, the opportunity to participate in workshops that burnish existing skills and allow them to investigate new skills is very beneficial to active learners. The *Thinking Creatively* Mini-Workshops, if structured properly, afford students that opportunity to stretch and expand their skills and thinking.

While this could happen in the course of a normal instructional Studio or classroom setting, the complete break of routine enhances the experience by participating on a new “turf” and a new schedule of their choosing that is outside of the normal routine of a student’s day. It makes for a

pause and then proceeds to refresh the creative impulses that brought these various students to Kean University's Michael Graves College in the first place. It also allows the students the freedom to choose and arrange their mini-workshop experiences; to tailor them to their own curiosities and preferences.

Reflection on Survey Results

What the Survey seems to demonstrate is that there is a strong desire amongst the students to have a variety of experience that relate to their chosen discipline, and yet go beyond what is normally offered to them. They seem also to bear out the desire to have control of what content they can participate in by suggesting even more flexibility in the amount of times that Mini-Workshops can be offered.

Another interesting take-away from the Survey results is the positive relational aspect of the *Thinking Creatively* Workshops, in that students expressed the desire to continue to explore connections back to their chosen field and to diversify their learning experiences. This also related to the openness of participants to collaboration with other students and professionals of related but differing design backgrounds, a necessary survival skill in today's global workplace for designers.

The Other Half of the Sky

Craig Konyk, Assistant Professor
School of Public Architecture, Michael Graves College, Kean University

***Thinking Creatively* Workshop Account and Reflection**

In my workshop entitled *"The Other Half of the Sky,"* I led the students in a simple watercolor exercise of painting the gray storm clouds that we were fortunate to have in the late afternoon sky. Many of the students had not tried their hand at painting since perhaps kindergarten. It was interesting to watch how at first their apprehension dissolved into sheer delight at the variety of effects that they were able to achieve with just one single color (any color) and water. The lesson of making a reduction in order to create a complexity was not lost upon the students. In addition, they seemed much more confident then of attempting a creative process regardless of the lack of any exposure or formal training in it. Designers need to be prepared to try anything.

Bioplastics and Fusing Plastics

Efecem Kutuk, University Lecturer
Robert Busch School of Design, Michael Graves College, Kean University

***Thinking Creatively* Workshop Account and Reflection**

When I set the desk with various ingredients from cooking and kitchen environments, students did not know what to initially expect out of this workshop. After a brief description on how DIY (Do It Yourself) plastics could be a useful option for many applications, I began mixing ingredients for the first recipe. At first, all of the students were silent, and eyes were focused on the frying pan, staring at the bubbling mixture. Once it started to thicken, and I poured it into the mold for curing, questions started to arise. The second recipe created more of a flexible material that had a sticky consistency, which invited students to brainstorm, discuss different applications and experiment with the cured cast.

Figure 8. Professor Kutuk working with students to create bioplastics

The next project was fusing HDPE plastics to create rigid and sturdy forms. Everyday packaging products like milk containers and detergent bottles were shredded and heated at a relatively low temperature at which fumes would not be released. Once the pellets started to melt on each other, a plastic sheet formed after cooling with slight shrinkage.

In the last project, I demonstrated LDPE plastic bag lamination by using an iron. The results included flexible, yet sturdy forms. Students were curious and wanted to test how many plies could all be fused together. We stopped at 96 plies due to time limitations.

When I asked for feedback about the experience, it provided me with valuable information that would allow me to integrate and modify this experience into my future teaching methodology and research.

Reflection on the *Thinking Creatively* Workshops

The *Thinking Creatively* workshops allow students to attend and participate in several different experiences, enabling their learning curve to ascend dramatically compared to a routine classroom set up. The voluntary and casual nature of this event makes students more pro-active during the sessions. Students are engaged, participating, and asking questions.

The student cohort who attended my workshop was surprisingly heavier on the Graphic Design side rather than Industrial or Interior Design disciplines.

In my workshop, students gained experience on how alternate methods could be applied to (1) the fabrication process in a sustainable manner, (2) use a more affordable option considering expensive sculpting materials, and (3) manipulate conveniently accessible materials, which create very efficient results.

Reflection on the Survey Results

It is satisfying to see the results of the survey pointing not only to students enjoying the fun activities, but also that the workshops are fostering creativity and thinking outside the box. The experience allowed students to collaborate across disciplines. To be more progressive in the following years, more feedback from the students will be valuable. Adding more sessions and striving to push for interactive experiences seem to be two action items for future events.

How They Built Before Nails

Saglinda H. Roberts, Assistant Professor
Robert Busch School of Design, Michael Graves College, Kean University

***Thinking Creatively* Workshop Account and Reflection**

In my workshop “How They Built Before Nails” students learned the history and process of timber frame construction used before the mid-1800s when nails became massed produced and standards of construction changed. The presentation used images and samples of the hand carved wood pegs, beam sections, hand forged nails, and tools from the time period.

The presentation was spurred by my two year journey restoring a 250 year old timber frame farm house. I was also able to share a little bit about the design theory I have been researching which guided this historic renovation. Many of the images used were from the actual renovation, with a revolving slide show of the process to date that ran at the end while they explored and interacted with all the building parts I brought.

Figure 9. Professor Roberts leading her workshop

The students loved seeing and using and touching all the beams, tools, old nails, and building remnants that I brought in. This spurred many questions that went beyond the scope of my presentation. They were very interested in the before and after photos and hearing all the crazy stories related to the process. I was surprised by how interested they were in the personal aspects of the renovation. I expected them to be more interested in the information I was presenting than in me personally.

Reflection on the *Thinking Creatively* Workshops

This being my first year at the school, I was impressed and pleasantly surprised by the inclusion of such a collaborative event within the regular curriculum. Breaking classes and switching things up is a great way to engage students when classes may seem overwhelming. The Design professions and business are changing toward a more integrative and collaborative model and this is a great example to students of the positive outcomes from this type of mindset.

Thinking Creatively Workshops allow students a glimpse of things they may not have ready access to in their normal life and helps expand imagined possibilities. It also has the potential to spur a life long pattern of creative exploration.

The workshops seem to create a deeper connection between the presenters and students. After my presentation I had many student asking about what courses I taught and expressing a desire to take them. This may be the hidden benefit of these conferences; the desire to be aligned with a more experienced professional. I can't help but wonder if having a deeper connection with a professor and other students will affect their future academic performance. It would be interesting to see if there is a way to explore this further. It shows me that the students have is a real desire for a personal connection, and that as a professor I should seek to foster that.

Reflection on Survey Results

I was glad to see that according to the survey, the majority of students enjoyed the conference and that the intent of opening and spurring creativity was realized. I also took the students' desire for more hands-on activities that didn't involve a computer as a very positive sign— one which could inform the program for following conferences. In addition, the survey noted that 68% of the respondents interacted with students outside of their major and 54% felt that they increased the number of connections made with students or professors. This shows that my experience was not an isolated case. Though not specifically stated it would seem it is perceived as a positive thing from students.

Don't Try This at Home!

Saglinda H. Roberts, Assistant Professor
Robert Busch School of Design, Michael Graves College, Kean University

***Thinking Creatively* Workshop Account and Reflection**

In my workshop "Don't Try This at Home: But Seriously Don't" students learned the history of the rock climbing, the different types of climbing techniques, equipment used and the misinformation propagated by Hollywood. Because of the serious and potentially dangerous nature of the sport, I also stressed the importance of seeking professional training and safety measures.

Figuring on the curiosity and limited access most people have to this sport or its equipment, I brought in all the gear that I normally use when climbing. The students really enjoyed having a chance to handle and test all the different types of mechanical devices and asked a lot of questions about the gear and how much weight I carried with me. We also walked through the steps for tying one of the foundational and main safety knots in climbing; a figure eight knot, laughing a lot in the process.

After the informational segment of the presentation, a revolving loop of photos flashed in the background. The students were fascinated with the photos wanting to know the places, people and stories behind them. In the end the personal aspects of my presentation, were what they had the deepest connection to.

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31 Responsive Web Design Testing: Devices, Browsers, Content, Oh My...

Michael Clayton
University of the Incarnate Word

Abstract

Gone are the days of designing a web experience for use only on a desktop computer. With the explosive popularity and increased availability of portable devices (e.g. smart phones, tablets, and other handheld devices) and larger displays (e.g. televisions, kiosks, and projection units), students need to learn how to plan, design, and test web sites on a variety of devices and browsers. Teaching responsive web design (RWD) principles becomes a necessary topic to add to our ever-changing curricula. Conversely, the problems faced by design departments today comes in the form of restrictive budgets, limited device-testing space, let alone the mind-numbing myriad of devices. However, in my research I have found ways that one can build a small portable device lab. I have also discovered a bevy of tools (both on- and off-line) that can aid in the testing and simulation of RWD projects. Specifically, I will be looking at means of acquiring devices popular to the current market, outlining available tools that can be found in common browsers and other software, and finding ways to bring like-minded people together to share and assist each other in these efforts. Armed with this knowledge and these tools, instructors and students can become empowered and begin to explore the world of RWD without having to spend money on costly devices, purchase useless apps, and dread constructing web sites that they cannot test.

32 Building Design Curriculum at the Intersection of Industry and Education

Benjamin Dolezal
University of Texas at Arlington

Abstract
The ever-changing landscape of design presents a variety of challenges to those who participate in the development of curriculum. The array of topics available, pressure to prepare students for professional design careers, and general decline in enrollment require educators to find novel methods to capture the attention of current and prospective students.

To surmount these challenges, design curriculum must cultivate practical skills and inspire new ways of thinking that meet the demands of industry. One method that is essential for evolutionary success is collaboration between corporate establishments and university design programs. This paper and presentation offer an example of how one design program partnered with packaging industry professionals to generate a design software and technology donation valued at more than $1 million. Three years after the formation of this partnership, the results show that enhanced access to expert resources and mentorship elevate student capabilities, prepare design graduates for meaningful employment, and increase the exposure of the University's design program to a regional, national, and international audience.

Key points addressed in this paper center around the mutual benefits that follow partnerships between education and industry, generating student interest in design through new software and technology, and the success that can be achieved through developing curriculum that arrives at the intersection between education and industry.

33 A Ripple in the Pond: Inspiring Students to Throw Themselves into Leading Positive Change in Their Communities

Jenn Stucker
Bowling Green State University

Abstract
When I reflect back on my undergraduate education in graphic design I think how technically strong the experience was in preparing me as a graphic designer. I was easily employed in design after graduation and achieved success in fulfilling agency/client requests. Living and working in a rust belt community however, felt less than satisfying as if one were settling. Like those around me, there seemed to be a cloud of "meh" that floated around the ethos of the community.

It wasn't until I became a design educator that I realized my power to invent and lead change. Over the last several years I have been actively engaged in developing community-based projects, co-founding a summer workshop (going in its 10th year) and creating a local AIGA Chapter. I wondered why did it take me so long to initiate the positive change in my community that I wanted to live in? Now as an assistant professor, I realized most design education experiences don't explain how to actually produce community projects or organize workshops. There is a great mystique for a young person in understanding how to develop a community project, write a grant proposal, or create community partnerships. Thus, most graduates head out into their careers as followers of design practice without preparedness for becoming leaders of social change.

Recently I have been revealing my process for creating community projects to my students. I walk them through the purpose, process and challenges while sharing my vulnerabilities and inexperience of not knowing what I am getting myself in for. This presentation intends to share my experience with other educators, so that we all may be the rock for creating the ripples of positive influences.

34 Creating A Reflective Practicum: Accessing University Special Collections Libraries for Active-Learning Instruction

Peter Lusch
Penn State

Abstract
Opening in January 2015, the Chip Kidd Collection is a remarkable volume of professional and personal artifacts within the Eberly Family Special Collections Library at Penn State. Aside from Kidd's stature as distinguished alumni, author, and award-winning contemporary graphic designer, perhaps the collection's true significance stems from Kidd's own meticulous collecting practices: Chip saves everything. As a result, his career trajectory from student work up to recent professional work in publishing is available for scholarly activity by researchers and students alike.

What can university special collections libraries teach current and future design practitioners? In this paper presentation, I discuss how resources from special collections libraries have been playing an active role in developing my active-learning curricula. Specifically, I share recent instruction utilizing artifacts from the Kidd Collection to teach undergraduates the iterative design process, research techniques, client relations, commercial print production, and methodologies for building unique personal collections of visual material that augment their own work. Informing this activity is the expertise from library personnel with whom I have developed invaluable professional relationships. A portion of this presentation will also address how university special collections, like the Kidd Collection, are preparing to make their resources accessible to researchers.

35 Finding a Balanced Approach to Teaching Interactive Design

John O'Neill
University of Minnesota Duluth

Abstract
As web-based media can be used and experienced in various applications and devices many graphic design degree programs are facing an enormous challenge fitting all these different forms into their curriculum.

During the 2015-2016 academic year, the graphic design degree program where I serve as Assistant Professor of Graphic Design found a better way to teach students interactive and other emerging web media. This quest resulted in dropping the Motion Graphics course from the curriculum. The course was dropped because it did not provide the foundation needed to learn interactive design effectively.

A new class named Emerging Media Design took its place to teach the basics of HTML/CSS while also introducing students to social media marketing. I took the lead to develop and teach the course as an introduction to digital design, preparing students to design across different web-based platforms.

Emerging Media Design was added to the curriculum because graphic design faculty members concluded that too much time was spent teaching HTML/CSS within the upper-level interactive courses to focus deeply on user experience and user interface design principles. Students were not using strong critical thinking and conceptualizing skills when they developed interactive design solutions.

By teaching the basics of HTML/CSS in Emerging Media Design before students take the first of two interactive courses in the curriculum, faculty members are better able to teach the theory and practice of experience design and user interface design. Emerging Media Design also exposed students to unsequential storytelling and semiotics as they produced social media campaigns. The campaigns merged social media into interactive and branding solutions.

The graphic design curriculum now has a better balance between teaching web-based media technology, theory, and practice. Most importantly, the new sequence of courses provides a better learning experience for the students.

36 Real Clients, Real Teamwork, Real Drama: The Advertising Pitch Class

Ann Lemon
Kutztown University

Summer Doll-Myers
Kutztown University

Abstract

Bridging the gap between classroom and real-world, seniors in this collaborative, cross-curricular class face the same challenges, deadlines, and feedback as in the pressure-cooker experience of working on a new business pitch at an ad agency.

In this 8-week class, an actual client defines their real marketing challenges and works with students who are majors in either the Communication Design, Professional Writing, or Marketing department, to create an advertising brief. So far, the businesses we have worked with include Olympus USA, Martin Guitars, and Reading Draft Soda (a local "craft" soda brewery).

Students "interview" for positions, and are placed in teams consisting of art director, copywriter, and strategist. They then conduct consumer research, develop a creative strategy, research media options (and hear presentations from local media companies) and then present their work-in-progress to industry professionals at major ad agencies like Ogilvy and Mather, Razorfish, and BBDO. After an (often harsh!) real-world critique of their ideas, they revise their campaigns and then create a complete final "pitch," which they deliver in front of the client's actual marketing department. Just like on the AMC reality tv show, *The Pitch*, a winning team is chosen, and the participating client is able to use (if they desire) the materials developed by students.

In the process, students review basic advertising skills, like writing strategy statements, creating a media plan, conducting consumer research, using project management software, developing print, tv, radio, direct mail, outdoor, online, guerrilla and social media marketing ideas, creating final art and design of all materials, and then putting together all the materials to create a professional-quality meeting.

We will show process work, discuss logistical arrangements with offering a class to non-majors, explain how we got cooperation with businesses and Small Business Development Centers and other community organizations, and show finished projects.

37 ...but how can you teach if you can't see the whites of their eyes?

A discussion of emergent studio practice when graphic design education implements online delivery.

Panel

Online education is becoming commonplace in all disciplines. That said, given its strong historic roots in the brick-and-mortar studio tradition, graphic design education and online delivery are hesitant bedfellows. As a doctoral student researching online studio pedagogy, I have heard a wide gamut of opinions. Critics bemoan online delivery for ignoring the importance of place in design education, obscuring the ever-watchful eye of a design master with a format that is partially or fully computer-mediated. Advocates applaud online delivery for the way it broadens access and enables students to learn not only graphic design skills but also twenty-first century digital literacies.

Regardless where one is positioned, the issue prompts many questions: what role does geographic community play within studio learning? How is community fostered? What role should studio pedagogy play in preparing students for not only visual design challenges but also future workplace dynamics? How is the ever-changing role of the designer related or reflected in the every changing role of educator?

This panel session will investigate the ways graphic design education is embracing online delivery methods. This session will consist of short presentations followed by a group discussion with educators from three online delivery approaches: design education delivered via a hybrid format, design education delivered via a fully online format, and design education delivered via a massive online open format.

This panel will be an illuminating look at the current state of online delivery in graphic design education. Case studies that reflect student learning outcomes and studio community will be emphasized. Through stimulating dialogue and shared stories, we hope to demystify the online graphic design delivery process and open the way for all to gain an understanding of strengths and weaknesses of teaching graphic design via online delivery methods.

This panel will be moderated by Lisa Hammershaimb, adjunct instructor with Independence University and doctoral candidate with Athabasca University.

Panel Chair

Lisa Hammershaimb
Athabasca University

Panelists

Shannon McCarthy
Shepherd University

Sean Pace
Independence University

Justin Gagne
Montserrat College of Art

Brytton Bjorngaard
University of Illinois Springfield

38 Designing Mobile Learning Apps for Education

Panel Chair

Karan Saggi
TryMyUI

Panelist

Robert J. (RJ) Thompson
Youngstown State University

Ed Johnston
Kean University

Panel

As the digitally native Generation Z (the cohort of people born after mid-90s) enters colleges and universities, they seek, at an ever increasing rate, new access points to coursework. From mobile smart phones, tablets, to tablet/laptop hybrids, each device provides unique learning experiences that vary greatly from the traditional platforms of online learning. By using open source technologies, practical instructional planning, sound pedagogical strategies, and moderate design and development, class-specific apps for mobile devices can be designed, developed, and successfully implemented into the online or blended classroom experience.

At Youngstown State University (YSU), individual class-specific apps are being embraced as innovative learning tools that engage the students with meaningful, intuitive ease. Each app is built using an intuitive, minimalistic ("flat") design style, accessible HTML5, CSS3, and PHP programming languages, in-depth multi-device testing, scenario-based student/user experience testing, and updating functionality via a web/browser-based Wordpress backend portal.

Currently, each mobile learning app that has been built is available for free download from the Apple iOS App Store, with future implementations occurring on Android and Microsoft devices. Each app submission underwent intense scrutiny from Apple, ensuring that each design and development choice utilized met their incredibly high standards. Though each app was approved, the concern that having too minimalistic design aesthetics (to accommodate lower technically-literate students), a moderate amount of non-customizable content, and the need for a dedicated connection to the internet were perceived obstacles for approval. These fairly common concerns reflect issues found in the development of many learning management systems, online learning environments, course content, and software applications. In spite of these concerns, the student/user experience must be met with positive visual attraction, functional efficiency, and memorable engagement in order to support learning and retention.

The process of app development, from original concept to final publication on the App Store,underwent significant research, iterations, failures, compromises, lessons, and ultimately successes. All of these experiences, in-depth review of how major design and development tasks were achieved, and a comprehensive guide on how to build open-source mobile learning apps to complement existing online learning will be shared and distributed in this session.

39 Guiding Ethical Use of Digital Resources in Design Education

Panel Chair

Kelly Salchow MacArthur
Michigan State University

Panelists

Hans Schelhas
Northern Kentucky University

Hilary Walrod
Colby-Sawyer College

Chris Visit
Texas State University

Panel

Design education teaches the concepts, methods and tools of visual communication—resulting in skills of empowerment that connect one to society. It is assumed that with such aptitude comes a sense of ethical practice. But the digital realm at our fingertips presents a renewed challenge to instill conscientious practice in students.

University guidelines for academic integrity principally focus on written copyright, and may not translate fluidly to our studio practice. As designers, we must delineate fair use of digital data and imagery, while emphasizing active thinking within all phases of the creative process. AIGA defines educational use as fair use, which excuses acts of infringement. But, if a classroom's parameters are loose in the name of educational use, how does this impact a student's perception of intellectual and creative property in subsequent professional practice? And what repercussions does this have on society in a broader sense?

Often times in daily activity, search engines or digital devices do our thinking for us— how can we ensure that this dependence does not eclipse an individual's creative development and problem-solving willingness and ability?

This panel will assess, compare, and contrast current classroom practices. Discussion will attempt to establish a framework to ensure that the next generation of visual communicators advances virtuously in the profession.

Example questions:

- When should this discussion be introduced to visual communication undergraduate students?
- Does design education do a disservice to the undergraduate ethos by allowing fair use?
- How can rules be enforced in the classroom?
- For any of the techniques for working with existing imagery in a principled manner, how might the educational practices contrast the professional practices?
- What ramifications does our educational practice have on students' holistic under standing of the profession, as well as the decisions they will make as professionals?
- What, if any, consistencies should be established for students in the design classroom?

GUIDING ETHICAL USE OF DIGITAL RESOURCES I N DESIGN EDUCATION

INTRODUCTION

Kelly Salchow MacArthur
Associate Professor of Graphic Design
Michigan State University

Design education teaches the concepts, methods and tools of visual communication—resulting in skills of empowerment that connect one to society. It is assumed that with such aptitude comes a sense of ethical practice. But the digital realm at our fingertips presents a renewed challenge to instill conscientious practice in students. In daily activity, search engines or digital devices do much of our thinking for us—how can we ensure that this dependence does not eclipse an individual's creative development and problem-solving willingness and ability? As designers, we must delineate fair use of digital data and imagery, while emphasizing active thinking within all phases of the creative process.

If a classroom's parameters are loose in the name of educational use, how does this impact a student's perception of intellectual and creative property in subsequent professional practice? And what repercussions does this have on society in a broader sense?

MSU is a land grant, tier-one research institution. By the time students take one of my studio classes, they should be well-versed in MSU's code of student conduct, which includes definition of academic integrity as "honest and responsible scholarship…

As a student, you are expected to submit original work and give credit to other peoples' ideas.

Maintaining your academic integrity involves:

- Creating and expressing your own ideas in course work
- Acknowledging all sources of information
- Completing assignments independently or acknowledging collaboration
- Accurately reporting results when conducting your own research or with respect to labs
- Honesty during examinations

- MSU "What is Academic Integrity?"

These guidelines are clear and concise. I supplement this by reviewing plagiarism and other offenses on the first day of class. Therefore, when a sophomore student submitted a blatantly plagiarized poster (of Karnes Poster Company) to publicize a campus event, the graphic design faculty were appalled. A few weeks later, another student meant to send her own resume for a job application, and mistakenly sent one she had found on Behance (which clearly demonstrates the layout she had plagiarized). Each of these occurances surprised me because of the students' familiarity with institutional policies, and my general trust (both in logic and conscience) in the student body. And they occurred in such rapid succession of eachother that I was motivated to review my role as an educator of design ethics and creative integrity.

After the student submitted the wrong resume, the graphic design faculty received this email from Jennifer Estill, owner of Redhead Design Studio: "[A]ll forms of plagiarism are a major career-killer. (We've fired for the offense before—as you can imagine, plagiarized work could set us, and our clients, up for lawsuits)… In our Pinterested and Behanced world, I know the new generation of talent has a harder time understanding that professional limits are different than recreational ones."

Clearly such an infraction reflected badly on the student, the faculty, the graphic design program, and Michigan State University. And it highlighted larger issues that I suspect are not unique to MSU or its students. Both examples that I share with you are extreme. I believe that smaller, less obvious instances occur more frequently and go undetected.

Problem solving skills are being negated by the computer's ability to think for us—whether this occurs in navigating a route on a map, calculating a mathematic equation, or in determining a color palette. Many students' intense dependence on digital media has impacted a willingness and ability to develop original ideas. I am often surprised by a student's assumption that the natural first step of the creative process is not to brainstorm or sketch extensively, but to conduct a Google image search for how other designers have solved similar problems. This is dangerous territory for the ethical and creative health of our profession, and design education must help young visual communicators navigate the complex territories of plagiarism, copyright, fair use, and appropriation. Let's define each of these.

Plagiarism
The act of using another person's words or ideas without giving credit to that person.
-Merriam-Webster

Copyright
The exclusive right to control reproduction and commercial exploitation of your creative work.
-Linda Kattwinkel, "Copyright Basics for Graphic Designers," aiga.org

Copyright Infringement
…[when] someone makes copies or commercially exploits a work without the copyright owner's permission.
-Kattwinkel

Perhaps one of the most recent and well known examples of copyright infringement within the graphic design community is the case of Modern Dog vs. Target and Disney. Modern Dog designed and published a book that included dog illustrations on the endpapers—original drawings of their and their friends' dogs. A couple years later, Target sold tshirts with Modern Dog's illustrations on them. Modern Dog raised a lawsuit, and ended up selling their building to pay for legal fees. Eventually, the designers were awarded $200,000 and are still practicing. Modern Dog was lauded within the design community for taking challenging huge corporations in the fight for intellectual property.

In the 1980's, Koppel and Scher's Swatch poster became a visible case in the design community, but has a very different narrative. Swatch asked that Koppel and Scher work off of Herbert Matter's famous Swiss skiing poster. Paula Scher gained permission from Matter's widow, and Matter was credited as one of the creators of the Swatch poster. Unfortunately, his name seems to be omitted from the credits as digital images of the poster are located in different places, and not consistently cited. This piece is seen as parody, and is an example of transformative use of sourse material.

Transformative
A work is transformative when the copyrighted material
is "transformed in the creation of new information, new aesthetics, new insights and understanding."
-Kattwinkel

Fair Use
Excuse[s] an otherwise infringing use under certain limited circumstances… Generally, non-commercial editorial or educational uses will be fair use.
-Kattwinkel

To clarify all of this for the students, I have a robust section in my syllabus on plagiarism and creative integrity, which I review on the first day of class. By folding this into the introduction of the course, I hope to address uncertainties students may have, and avoid future infractions. Plagiarism and academic integrity has evolved into a topic that I feel I must discuss in depth. While I have a great deal of confidence in the majority of the student body, I find it somewhat unfortunate to have to focus on such an issue.

Penalties noted on the syllabus range from a failed assignment to a failed course grade. Each project sequence is mapped out to insite conceptualization, experimentation, and individual creative development. I ask students to cite sources (within the project and/or in their portfolio). And each assignment evaluation includes a category titled "depth of process," which allows me to assess independent experimental progression, without excessive reliance or reference of existing examples.

SHARING CULTURE: CREATIVE COMMONS, PUBLIC DOMAIN AND ACCESSIBLE SOURCES FOR DESIGNERS

PANELIST 1:
Hans Schellhas
Associate Professor of Visual Communication Design
Northern Kentucky University

Under standard copyright law an author of an original work maintains all of the usage rights. Anyone wishing to use it must get permission from the owner, unless it meets legal exception such as in the case of fair use. However, there is a massive and ever-growing body of free online resources for the purpose of using, adapting or building upon for creative projects. Hundreds of millions of works have been released to the public under Creative Commons usage agreements alone.

The non-profit organization, Creative Commons, has developed an alternative licensing option to the "all rights reserved" form of standard copyright. Their goal is to "increase the amount of creativity (cultural, educational, and scientific content)" to the public for "free and legal sharing, use, repurposing, and remixing."[1] Authors of works may want to share their works, but in specific ways. They select from a list of different licenses that customize usage rights for their work. Authors retain "some rights" vs. the traditional "all rights reserved."[2] These do not replace standard copyright rules, but work within them.

Public domain is another way in which creative works may be shared without copyright restrictions. According to Richard Stimm at Stanford University Libraries, "The term public domain refers to creative materials that are not protected by intellectual property laws such as copyright, trademark, or patent laws. The public owns these works, not an individual author or artist. Anyone can use a public domain work without obtaining permission, but no one can ever own it."[3] There are a number of organizations and institutions that provide access to archives of public domain works. Libraries are a particularly large source. For instance, in 2016 the New York Public Library released over 180,000 images. Many images become public domain because their copyright protection has expired due to age; however, contemporary creators frequently designate their works as public domain as well. Flickr Commons is an online website that contains a voluminous list of links to libraries that offer large collections of downloadable public domain content.

In addition to these standardized agreements, there are individuals and companies offering free use of their materials, software, etc. but one must thoroughly examine the specific usage privileges, because each situation may be different.

This large pool of resources is not only empowering for students, but even more so for graduates because they will no longer be able to use copyrighted sources under educational fair use exception. When working on a motion design project or film, it can be particularly empowering to have access to resources without copyright restriction, because the animator or editor often needs to layer and blend many different forms of media together. It can be a monumental task to create or acquire everything needed within budget. Purchasing copyrighted audio and visual assets can be expensive and thus, prohibitive. Instead, a variety of free assets can be downloaded and woven together, such as Creative Commons licensed audio from Jamendo, Soundcloud, and Freesound.org, Public Domain video clips from the Prelinger Archives, and Public Domain photographs from Flickr.

As accessibility is opening up powerful opportunities for creators, usage rules are more complex. It is imperative for educators to teach students to carefully examine the terms of usage of whatever they are using, including the purchase of royalty-free or rights-managed works from a stock site. A simple rule of thumb is to always to seek out the terms before downloading, using and attributing a creative asset.

1. Creativecommons.org/what is creative commons
2. Creativecommons.org/about
3. Fairuse.stanford.edu/overview/public-domain/welcome

IMAGERY + THE FIVE 'I'S

PANELIST 2:
Hilary Walrod
Associate Professor of Graphic Design + Digital Media
Colby-Sawyer College

CURRENT COURSE EXPECTATIONS
In the syllabi for my undergraduate graphic design and digital media courses, I currently state these expectations with regard to academic honesty:

> Plagiarism in any form will not be tolerated. Violations of academic or artistic integrity will, at minimum, constitute failure of the exercise or project in question and can result in as much as dismissal from the College. As a design student, you are expected to have a working understanding of artistic integrity and to act accordingly. If any questions arise about the nuances of inspiration versus influence versus imitation, please be forthright and ask ahead of time.

While these expectations clearly indicate what is not permissible, outline the range of potential consequences, and invite related discussion with me during the design process, they fall short in terms of guidance and instruction. Upon reflection, I realize that telling my students — especially my first-year students — that they are "expected to have a working understanding of artistic integrity" carries an inherent assumption of past experience and learning. How do I expect that they have developed this working understanding? When and where do I presume that they have learned about ethical considerations and legal rights pertaining to using non-original imagery and digital resources? Recognizing this shortfall, I see an opportunity to develop instructional methods for improved guidance and learning in this domain.

The alliterative spectrum that I outline (in the fourth sentence quoted above) has proven to be a useful way to frame initial discussion about how we can and cannot ethically reference others' work:

IMITATION < – – – – INFLUENCE – – – – > INSPIRATION
Beginning on one end of the spectrum, I talk with my students about how imitation of others' visual and/or creative work constitutes plagiarism and therefore is not permissible. Looking toward the other end of the spectrum, I invite them to use inspiration in their design processes, encouraging them to look at design examples as well as other

references. We then talk about the middle of the spectrum, identifying influence as what can happen when one is especially inspired by a particular example, image, designer, artist, or style. To ensure that such strong influence doesn't tend my students toward the risk of imitation, I advise them to pair any influence that is really compelling with at least one other influence — thereby forcing recombination rather than direct singular imitation.

Although this spectrum does provide an effective way to visualize and discuss alternatives to plagiarism, I realize that it is biased toward the creation of original imagery: it frames how one can be ethically inspired or influenced in doing so, but it doesn't address how one can ethically and legally employ non-original imagery in one's design work. Therefore, I propose adding two other 'I's to the middle of the spectrum and adjusting my teaching methods accordingly:

INTEGRATION / INCORPORATION
Alongside a continued focus on the creation of original imagery, how can graphic design students be guided and taught to integrate and incorporate imagery from other sources ethically and legally? I suggest four methods for doing so: increasing exposure to resources, continually and consistently expecting accountability, assigning an early project that demands understanding and application of various levels of image rights, and employing scaffolding in the curriculum.

IDEAS FOR IMPROVED GUIDANCE + LEARNING

[1] Increase exposure to resources
In my upcoming classes, I intend to increase exposure to relevant resources in these three ways:

- partner with a subject librarian more frequently
- post recommended resources online and/or in the studio
- introduce relevant image search tools early on

After asking our subject librarian to support my seniors' independent projects with both an introductory class visit and one-on-one required research meetings, I realized that her services and her expertise about use of media could also be valuable to my students at earlier levels — and repeatedly. Therefore, in addition to the periodic project-specific consultations that she and I have arranged for various classes, I plan to partner with her to schedule and incorporate sessions about ethical use of digital resources and imagery during each of the four years of our graphic design curriculum.

Also, although resources to guide ethical and legal use of sources are available to all students on our school's library website, I hazard that it would be worthwhile to reinforce exposure and access by posting such resources in both virtual and physical places that design students frequently visit: on the graphic design course sites — in my case, on Moodle — and in the studio itself. Possible relevant resources to share with students include those on the Center for Media & Social Impact website, a copyright flow chart outlining use guidelines and options (Rosenthal Tolisano and Zeidenberg), and the Code of Best Practices in Fair Use for the Visual Arts (College Art Association). The latter document could help students to develop understandings of fair use beyond educational fair use, explaining that, "Artists may invoke fair use to incorporate copyrighted material into new artworks in any medium, subject to certain limitations..." (CAA, 11)

- generate new artistic meaning
- be justified by the artistic objective
- avoid suggesting that incorporated elements are original*
- cite the source (by labeling or embedding)* (CAA, 11)

While these limitations are of course nuanced — and it should be noted that the asterisks on the latter two limitations indicate possible exceptions outlined in the document — this source could nonetheless provide a starting point for increased contextual understanding and discussion.

In addition, in my introductory Digital Media Foundations course, I intend to introduce the Google Advanced Image Search option to filter by usage rights as well as the Google Search by Image feature. I envision that students could employ the former if needing to seek out permissible non-original images and the latter if needing to identify the rights associated with a found image in order to determine if it is permissible to integrate or incorporate in their own work — and, if so, how.

[2] Expect accountability every time
While I always expect my students to cite the source(s) of any non-original imagery that they use in their projects, their submissions of these citations are inconsistent in format and mode. In the future, I would like to standardize this expectation and bolster it with a reflective component. I propose to do so by developing a student form for attribution / citation / analysis to be completed for each and every project. I imagine that this form could include questions such as the following:

- In this project, did you integrate and/or incorporate any imagery that you did not originally create?
- If so, why? How did you use it?
- If so, please provide all known citation data in standard format.
- If so, what level of rights does this imagery have?
  -public domain
  -creative commons
  -copyright
- If you were not in school, could you use this imagery in this way? Why or why not?

By asking students to acknowledge, justify, explain, cite, identify, and analyze, these questions have the potential to increase both comprehension and accountability.

[3] Assign a tiered project early on
In order to prepare students to be thoughtful, knowledgeable, and accountable in this way, I anticipate the need for an applied assignment through which they can learn, practice, and demonstrate their understanding of image rights and usage — before being expected to answer the questions above for every subsequent project. Therefore, I propose a tiered project early on in the curriculum that mandates employing imagery with different levels of rights. For example, in the near future, I plan on assigning a set of four posters on the same theme with these variations as parameters:

- version 1 = own imagery
- version 2 = public domain source
- version 3 = creative commons source
- version 4 = copyrighted source

I envision that such an assignment will provide an active learning opportunity for my students to utilize available resources; practice using relevant image search tool; research as needed; and learn more about attribution, transformative use, and fair use in a hands-on approach.

[4] Employ scaffolding in curriculum
While it might go without saying, I think it is worth noting that scaffolding is likely to be an effective way to provide

improved guidance and learning about ethical use of digital resources and non-original imagery. Repeated exposure is likely to reinforce the importance of this matter as well as provide opportunities for deepening and broadening understanding and application. For example, to summarize and expand upon the methods suggested above, I intend to expand the number of touch points in our curriculum as follows:

- first year = exposure to (and practice with) rights and resources
- all courses = ethical application of attribution / citation / analysis
- all years = sessions with subject librarian
- internship = inquiry about ethical professional practices at site
- senior year = re-consideration of rights from perspective of author

I hazard that the latter two touch points could simultaneously build upon prior classroom learning and transition the understanding of this domain from educational settings to professional ones. Given that many intermediate and advanced students are sent out into the field to multiple and varied internship sites, I see the opportunity for them to build upon their initial classroom learning with on-site inquiry, thereby expanding their — and each others' — awareness of professional use of non-original imagery. Finally, when students are putting together their portfolios and portfolio websites, there is a meaningful opportunity to expand their ethical skill sets and comprehension further; by inverting the discussion in order to re-consider image rights from the perspective of the author, students can determine what levels of image rights to assign to their own design works before posting them online.

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SHEPARD-ING DESIGN ETHICS FROM THE CLASSROOM TO THE AGENCY

PANELIST 3:
Chris Visit
Lecturer in Communication Design MFA Program, Texas State University
Design Director + Founder, Frank+Victor Design

Being an agency owner and an educator, I am privy to seeing a complete picture of how young designers grow and evolve in the classroom and how they transition into a commercial studio environment.

Shepard Fairey
Shepard Fairey's pattern of infringement started at RISD and seems to continue to this day. Despite this, he has still managed to create an iconic and commercially successful brand and become a design hero to many.
Wikipedia: "In 1986, he used an image of Andre the Giant from a newspaper he had lying around to teach a friend how to make stencils. The stencils eventually turned into stickers and eventually turned into a sticker campaign that was meant to gain fame among his classmates at RISD. By the early 1990s thousands of stickers were being plastered all over the world. Wikipedia: In 1994, Titan Sports who owned World Wrestling Federation Entertainment threatened to sue Fairey for infringement for using Andre the Giant's likeness. As a result, Fairey created a new image of Andre the Giant, that we all now know as the icon/mark for his company Obey that has become a popular and recognized streetwear brand. It should also be noted that Fairey appropriated the name Obey from the 1998 cult classic film called They Live. Fairey has said that it's a direct homage to "Obey" propaganda signs seen in the film.

Fairey is also well known for his Obama Hope poster created for the 2008 presidential election. As you probably know, the Associated Press claimed that Fairey infringed on its copyright of an image taken by Manny Garcia.
Wikipedia: In response, Fairey filed a preemptive lawsuit, claiming fair use and that he used the AP photo as a mere starting point and then transformed it into a "stunning, abstracted and idealized visual image that created powerful new meaning and conveys a radically different message." The parties settled out of court in January 2011, with details of the settlement remaining confidential. Throughout the lawsuit, Fairey had claimed that he used a different source image.

Wikipedia: He later confessed that he was wrong and destroyed and fabricated documents during the legal fight with the Associated Press. As a result Fairey was sentenced to two years of probation, 300 hours of community service and a fine of $25,000 in 2012.

Austin Chronicle and Wikipedia: Graphic designer Baxter Orr did his own take on Fairey's work: a piece called Protect, with the iconic Obey Giant face covered by a SARS (respiratory) mask. In 2008, Orr received a signed cease-and-desist order from Fairey's attorneys, telling him to pull Protect from sale because they alleged it violated Fairey's trademark. Fairey threatened to sue, calling the designer a "bottom feeder" and "parasite".
Somewhere along the line Shepard Fairey developed his own ethics and morals with respect to our discipline of graphic design. I believe that each of our programs needs to take responsibility in teaching our students a baseline of how to design the right way.

My students routinely appropriate content, whether it's an already created visual identity, lyrics from a song, or content and images from already published material. In these courses, we do require attribution to be included in the finished piece. Given the number of skillsets that we need to develop in our students for the ever changing world outside of the classroom, I find it nearly impossible to task students with the responsibility of developing completely original content.

If a student were to maintain their practice of using appropriated imagery or content once they transition into a commercial studio environment, the results could be devastating.
Likely scenarios if a designer flat out copied or infringed on existing copyright:

- we would be threatened with a lawsuit and be required to pay damages
- we would need to repair the work
- we would probably lose a client
- if the work were posted on on our website, our site could be removed from search engine results by way of the Digital Millennium Copyright Act. So while we're off fighting the claim of infringement, new potential clients don't even know we exist because our website can't be found on Google or Bing.Firing that designer doesn't even begin to help with the collateral damage, not to mention the effect it has on the lives of other employees of the studio.

Suggestions

- Develop a course that transitions students from the classroom to the real world in the last semester of a student's time at a school, can cover issues like plagiarism, other ethical issues, salary expectations, professional expectations, taxes, etc.
- Require project post-mortem documentation outlining final build of the project: materials, fonts, software

used, attribution for each asset.
• Establish an ethics review board comprised of peers and faculty for incidents of suspected plagiarism.

Ethical hard working design students won't let other students get away with cheating. The perceived threat of having a review board may make students think twice about plagiarizing or appropriating. It's sort of like having a security alarm sign in your front yard.

Why It Happens
We can install lots of checks and balances and systems to prevent plagiarism from occurring, but as educators, I also think we need to spend time thinking and talking about why infringement occurs. There is some sort of internal justification that occurs within the student's mind. Shepard Fairey is probably thinking "whats the big deal?" Some students may feel left behind, inadequate, or insecure. The way a lot of our programs are setup don't allow students to fail. The classroom should be the safest place for students to experiment, to fail and to fail often. Students run out of time. With all of their other classes and skill sets they need to learn, they don't have enough time to explore.

QUESTIONS FOR DISCUSSION

- When should this discussion be introduced to visual communication undergraduate students?
- Does design education do a disservice to the undergraduate ethos by allowing fair use?
- How can rules be enforced in the classroom?
- For any of the techniques of working with existing imagery in a principled manner, how might educational practices contrast professional practices?
- What ramifications does our educational practice have on students' holistic understanding of the profession, as well as the decisions they will make as professionals?
- What—if any—consistencies should be established for students in the design classroom?

Poster 1 Case Study: The Evolution of a University Literary Journal in an Interdisciplinary Design Course

Brytton Bjorngaard
University of Illinois Springfield

Poster
This poster presentation will feature the visual design of the literary journal *The Alchemist Review* and its evolution as it went from being designed by a University's extracurricular club to being designed by Visual Art Majors and Communication Majors enrolled in a Print Design course. The poster will feature the ongoing work that aims to re-brand a journal with a 30-year literary tradition not just as an outlet for literary works, but as venue for contemporary poetry, fiction, and visual arts, dedicated to publishing dynamic works by emerging writers and artists in the University's community.

This poster outlines the ongoing three-year journey within the course, enrolling six students in Spring 2016, twelve students in Spring 2015, and nine students in Spring 2014, in transitioning the design of the journal from an extracurricular outlet into a design course, giving those students enrolled in the course an opportunity to work with a client and those students in the extracurricular club an opportunity to work with a design firm. Additionally, both the course and the club had the experience of working with a printer to produce the journal, which is now unveiled at the University's Technology, Arts and Research Symposium.

The poster outlines how the students learned to apply background research, overcome the obstacles of communication in client work, and find ways to work together to communicate and share their individual results to solve a complex, group problem. The poster will also focus on unexpected obstacles that occurred in both the aspects of group work and client work and how the design evolved due to those obstacles, as well as the future of the journal and its planned presentation at the 2016 Association of Writers & Writing Programs Conference and Bookfair.

Poster 2 Mobile Ad-Hoc Impromptu Retail Structures

Liam Colquhoun
Virginia Commonwealth University in Qatar

Matthew Holmes-Dallimore
Virginia Commonwealth University in Qatar

Poster

Origin
The roots of the project are found in an undergraduate Interior Design studio class with a focus on Retail Design.

The course is usually introduced with a short project investigating basic retailing principles at the scale of a small, mobile, branded kiosk. In developing the course, the instructors identified an overall lack of published work, reference materials or signifcant information on the topic. This dearth of information led to us conducting our own research and subsequently developing a related research question.

Data retrieval
The principle initial approach of the study was to observe and record existing examples of temporary and mobile retailing from different cultures. Analysis began by looking at how vendors and shoppers interact with each other in different commercial environments and then by trying to extract some meaningful information about what people create and build in order to facilitate that interaction. In this regard, the effort might be considered an ethnographical study in the field of mobile retail design.

In addition to personal travel, research grants were secured to fund additional short data-collection trips to specific destinations with a rich history of mobile retailing as well as popular shopping destinations from the Western world.

In all, research trips were made to Turkey, Morocco, India, Sri Lanka, Dubai and several locations in the United States and the United Kingdom.

Observations
The scope of the project covers a diverse range of related but ultimately different retailing opportunities in a variety of different countries and cultures. The gamut of the investigation ranges from street markets, souks, bazaars and roadside stalls to shopping malls and other contemporary incarnations of the modern retail experience. We recognize that there are fundamental differences between these different environments but we also propose the existence of some key characteristics that are fundamental to the many forms of mobile retail structure we recorded (although not all).

The crux of the findings is the notion that these characteristics may be considered individually for the purpose of analysis and exploration. We believe that these key characteristics include:
• Economy of scale
• Materials of presentation • Identity
• Merchandise
• Context
• Transience + Mobility

Derivative work
These key characteristics identified then formed the focus for new projects in the Retail Design studio. For example:

The *Context Kiosk* project was a collaboration with a highly regarded Interior Design program in University from a distant part of the world. Students from diverse cultural backgrounds were tasked with designing a small kiosk that reflected each others cultural identity, meeting in weekly Skype groups and recording the process in WordPress blogs. Students from both programs performed dual roles as designers of their own kiosk and client/consultant to the projects of others.

The *Materiality Kiosk* project focused on the idea of found and repurposed materials. Students were required to design an information kiosk that promoted a sustainable initiative of their own devising, using construction materials found from within a 5km radius of their studio.

Retail Without Walls
The resulting student work was displayed alongside the research findings as part of an exhibition hosted at Mathaf Arab Museum of Contemporary Art named Retail *Without Walls: Kiosk Culture*. The centrepiece of the exhibition was a full-scale kiosk prototype, made largely of raw steel and a 2-metre section of concrete drainage pipe, designed to the same restrictive specifications as the Materiality Project.

The project continues to inform content in the design studio where it was conceived as well as elsewhere in the curriculum. Currently, new collaborative projects are being developed that build upon these findings.

Poster 3 3-D Techniques for 2-D Computer Geeks

Elaine Cunfer
Kutztown University

Vicki Meloney
Kutztown University

Poster

As digital arts and computer design training become more common in high schools and community colleges, students are becoming increasingly deficient in basic hand-skills such as drawing, using a ruler or exact-o blade. Students are expected to master digital skills earlier in their design education at the expense of hands-on experience and knowledge of working with tactile and dimensional materials. Training and practice in the basics of cutting, construction, and the art of “making” are pushed to the wayside due to program prioritization, budget constraints and scheduling.

It is not uncommon for us to get students that see no value in creating art/images/resources by hand and insist that their best and most expedient solutions are vector shapes and digitally edited photographs.

By leaving our students with limited digital tools in their design tool belt, are we stunting their inventiveness, originality and creative potential?

As faculty trying to teach our students to be well rounded designers, we work to correct deficiencies of dexterity and craftsmanship as fewer students have competence and confidence fabricating and finishing traditional work. We are constantly overcoming stereotypes of what it means to be a graphic designer in this digital realm — but more worrisome is the exclusion of these traditional gems in their overall design practice. We can encouraging students to be innovative with materials and tools, that will ultimately enhance their final design concepts.

We propose to create an information graphic poster to introduce a variety of physical materials, craft techniques and resources students have at their disposal. We will present how techniques such as paper engineering, wood engraving, metal etching and non-traditional art making can be successfully incorporated into a variety of design projects to enhance and extend a student’s design repertoire.

Poster 4

Experience Mapping: Triumphs and Fails from the First Run of a Brand New Design Class for Non-Majors

Karina Cutler-Lake
University of Wisconsin, Oshkosh

Poster

Rooted in graphic design and studio art practice, this introductory-level general education course explored the ways creative spatial and visualization techniques can address the concept of place. Using a variety of media, students in this course—none of whom were art or design majors or minors—made maps and information graphics that addressed the concept of place by illustrating connections between people and location, nature and the built environment, meaning and experience. The creation of graphics—largely handmade due to design software's steep learning curve— were envisioned as an ideal platform to explore, measure, combine, and document data from disparate areas of inquiry, with the idea that creative idea generation and visualization techniques learned in this course might be applied to future efforts in school, at home, and in the community, no matter the discipline of the student. Better understanding of our community was the primary investigation: to know our region better, six speakers from different disciplines ranging from anthropology to sociology were brought in to show their point of view via graphics, and the class interviewed local senior citizens in order to map out changes in the city over time. Bus routes were taken and mapped, and students responded to weekly pertinent readings. I was excited to develop and teach a course quite different from our traditional design curriculum, and was excited to work with students (and faculty) from other disciplines. I was eager to share what I like best about being a designer: learning about new things and making connections for better understanding. I gave it my all, but to mixed results. Some students thrived while others clearly dismissed it as an experimental hodgepodge of ideas—which, of course, is exactly where designers thrive. Looking back, what went well, and what must be changed when this course is offered again?

Poster 5

Running a Student-Run, Faculty Led Strategic Communication and Graphic Design Agency

Ben Hannam
Accomplish Studios, LLC

Poster

I have had the unique opportunity to teach at a public and private university with a student-run, faculty-led strategic communication and graphic design agency. This poster session draws parallels between the two organizations (highlighting their strengths and weaknesses) for the purpose of understanding what skills students gain by being exposed to various levels of professional practice and accountability to the team.

This poster will examine the quality of the student work, the types of clients that typically get the best results, and the management skills and accountability that students acquire through their involvement with a student-run agency.

Poster 7 Using Augmented Reality in the Design Classroom

Laura Huisinga
Iowa State University

Poster

This poster explores how Augmented reality can be used to enhance learning for design students in theory and criticism classes. Design students who excel in studio class may struggle with required history or theory criticism classes. This poster outlines three ways of using augmented reality in a Visual Literacy theory and criticism class.

1. **Augmented posters:** that provide multiple layers of information on vocabulary, and principles of design.

2. **Augmented critique** content that allows students to see overlays of analysis pulled up in real time.

3. **Student Analysis project:** students augmented a public work on campus with their critical design analysis of the work, using design terminology and principles.

A brief overview of the literature for the design of the AR poster, critique and project will be followed by visual examples of each implementation. Concluding with Reflections on future use of AR in the design classroom.

Poster 7 Now What? Think Fast: Using healthcare clinics as universal language to maximize learning for international students in a graduate classroom.

Sanda Katila
Kent State University

Poster

International graduate students in Masters programs come to the U.S. full of optimism, hope and willingness to learn. When they arrive on campus and enter a rigorous design program, they're often unprepared for expected environments. Culture shock and language barriers may seem like the most obvious hurdles but work ethic and visual knowledge, which may be even more daunting, pose unique challenges for both students and design educators.

Although domestic students share similar challenges in new environments, such as work ethic and design rigor, international students face tougher impediments in studio environments where they have to express themselves visually and verbally—on demand, which is difficult when language is an issue. Additionally, much of design uses cultural prompts, such as humor, idioms, and visual clues, and to someone unfamiliar with those prompts, the meaning is lost or misunderstood. So the question becomes, how do design educators help international students build on what they already know? And, how do educators create projects that break down barriers between domestic and international students so they can teach one another through a universal language?

In Fall 2015 my Conceptual Development class was struggling to exchange ideas in the first half of the course, so I changed the last half by asking students to promote a healthcare clinic in their native city and their native language. Creative Plans had to explain what makes healthcare clinics reputable; how people access information in India, China, small towns or larger urban areas; and where people look for trustworthy information? Students shared "back stories" about cultural norms in regions of India, China and small U.S. towns resulting in engaging dialogue leading to meaningful design solutions. This paper will discuss how one educator used healthcare clinics to find a universal language and maximized learning for international students in design education.

Poster 8 FRESH MEAT :: A Collaboration Between Design Professors

Shannon McCarthy
Shepherd University

Poster

A Collaboration Between Design Professors is a continuation of FRESH MEAT :: 10 Lessons From A Novice Design Instructor. Fresh Meat refers to the newly minted professor, the one "fresh" out of graduate school and new to the teaching environment. Experiences with both fellow novice professors and those more senior inspired the development Fresh Meat in order to connect with other new faculty who may be experiencing similar tribulations, anxieties and concerns and provide a communication path to encourage discussion and collaboration. Discovering that all good teachers (no matter how long their service) share an interest in developing resources, enhancing their teaching styles and in developing curriculum to meet the needs of the student, the department and the community. Hoping to open a path of communication and exchange to assist other "Fresh Meaters" in discovering and sharing the variety of sources available to them, especially those still in their graduate degree. Fresh Meat encourages both novice and tenure professors to collaborate together, to learn and to share experiences. For Fresh Meat to expand and ourish this collaboration must ensue, a path for different levels of achievement will be provided and explained to the interested party. Through this collaboration, professors across the nation can supply ideas, resources and discussions on various topics to help invoke change in personal, professional, teaching and cross-cultural development between colleges and universities to help cultivate and continue a strong teaching community.

This poster will showcase the multiple functions of Fresh Meat and possible outcomes of having novice and senior design educators work collaboratively together to develop new connections and resources.

Poster 9 Design in the Community: Service Learning

Mary Kay Neff
Seton Hill University

Poster

This poster examines one of the current movements in graphic design education—design for the common good embodied through service learning design projects. It specifically focuses on design work for the City of Greensburg, Pennsylvania, in collaboration with the director of the Greensburg Community Development Corporation from 2011 through 2015. The intent of the service learning design projects for the city is to add vibrant visual elements, express the essence of living in the community and increase investment within the city. The learning goals for the advanced graphic design majors include personal and professional development, application of design thinking for positive social impact, and exposure to direct client interaction. To this end students study environmental design and signage as a basis for the project. Students consider how their designs will relate to the surroundings and address the brand standards for the city. Feedback is collected from students upon completion of the design work to assess the project. Students reflect on the knowledge and skills obtained through the activity. Assessment criteria for the completed projects include design for the common good through service learning, the aesthetic merits of the completed design, student learning, and service to the community.

Poster 10 Making it Real: Expressions with Typography

Doris Palmeros
University of the Incarnate Word

Poster

Goal

Goal for the class is to bring hand crafted skills to digital design students.

Project Brief

This studio class was created for seniors as a Special Topics course. Emphasis is placed on the expressive potential of typography, hand crafted skills and experimental techniques. How the shape of letterforms affects meaning is studied analytically. The attention is on typographic design from the perspective of culture, history, psychology, and artistic interpretation created with handmade skills and integrated with digital form to develop more of an authentic typographic language. The class was developed with lectures, variety of hands-on exercises, and projects that encouraged and reflected design on typographic language. It pushed typography from its conventional form of verbal language to a more visual interpretation to express a more rooted message. This poster will present the curriculum, and projects along with students' award winning results.

Poster 11 Get Real: How to Render Authenticity in the Classroom

David Szalay
The University of Akron

Poster

The next higher education imperative is Teaching in the Experience Economy.

Stakeholders question the cost value of their degree. 24% say the cost exceeded its value. (www.eduventures.com)

Will your lessons stop at graduation or have you delivered an engaging experience, so useful that it's priceless and continues to resonate for years to come. You are in the business of transformation as an educator.

We regard most experiences in life as being either good or bad based on branding. Is a class (program) what it claims to be? Is it as good as it sounds?

Avoid ubiquity. Be specific.
- It is important to have a sense of place.
- Can't be replicated on-line, you must attend in person.
- We are naturally interested in a sense of origin. History, roots, connection, community.
- Without place and origin, there is a disconnect and a perception of phony or irrelevance.
- Include common goals of the profession and the individual.

Grasping, retaining, and buying into the lesson.

Be true to yourself. Stay on top of current opportunities, trends, and shifts in the industry?

Deliver sticky lessons.
- Delivery built on compassion.
- Personal engagement.
- Customization that leverages each group's dynamic.
- Use the power of story.
- Transparency and vulnerability framed properly builds trust.
- Be unforgettable.

Students with a sense of entitlement.
- How does this pertain to me specifically.
- Why should I believe you?
- How do I do this?

Authentic tools for building
- Harvest ideas?
- Limit Google. Create > Consume!
- Ideas. Concept. Execution. Fake or real?
- Roll up your sleeves.
- Demonstrate!
- Social footprint? Be seen and heard.

The best way to render authenticity is:
- Don't say you are unless you really are.
- It's easier to be authentic if you don't claim to be.
- If you do say you are authentic, you better be.

Poster 12 Youngstown University: Intermediate Interactive Design

Robert J. (RJ) Thompson
Youngstown State University

Poster

The Graphic & Interactive Design (G&ID) program in the Department of Art at Youngstown State University offers students a balanced print and interactive curriculum that challenges them to express creativity in innovative conceptual and technical ways that reflect changing needs of the design industry. Be it the need for cutting edge technical skills or high quality conceptual development, the ever-changing needs of the design industry poses challenges to curricular improvement, conceptual development, and growth in technical skills. Where increased standards create barriers, the interactive design side of the G&ID program creates benefit by looking beyond what employers need now and instead forecasts what they'll need in the future.

To accommodate this future-thinking, G&ID students taking Intermediate Interactive Design are given one month to invent their own operating system concept, design the graphic user interfaces (GUI), create an animated walkthrough prototype, present their work to the technology community, and ultimately be judged on their work by professional interactive designers, developers, CTOs, and more. This comprehensive project enhances software skills, user experience design, problem-solving for interactive environments, and the ability to professionally articulate complex technical concepts in short, simplified explanations. Since the beginning of this major project, students that are typically placed in the top 3 projects go on to thriving careers in interactive design.

This poster seeks to spotlight some of the best operating system graphic user interface designs, offer insight into the design methodologies of several designs, detail feedback from judges, and demonstrate innovative design thinking for interactive technologies.