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Dr. Frankenstein was a designer: methods for educating Gen H--the hybrid design student

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DR. FRANKENSTEIN WAS A DESIGNER:
METHODS FOR EDUCATING GEN H—THE HYBRID DESIGN STUDENT

A Thesis

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Master of Fine Arts

in

The School of Art

by
Patricia Ferguson Vining
B.A., S. U. N. Y. at Stony Brook, 1974
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ABSTRACT

*Business Week* recently launched an innovation and design quarterly entitled *In*, as well as a Website section specifically dedicated to design and innovation. *Fast Company*, with its Third Annual Masters of Design issue, and *Fortune* have also added significant design content to their publications. The business world appears to have discovered design as a vital strategic tool and economic force. Globalization and the Internet knowledge explosion have changed our world in unprecedented ways. Design thinking, which was previously relegated to dealing with issues such as form and function, has become the twenty-first century methodology for the development of new business models.

Unfortunately, the hierarchical nature of higher education has prevented design and business curriculums from keeping pace, though the Illinois Institute of Technology (IIT) has recently added a dual degree, the MDes/MBA. I have two main goals with this thesis. First, I intend to propose a new design curriculum that will educate design students as to the inner workings of the business world in order to position them as strategic partners with a seat at the board room table, rather than as vendors at the end of the line. It will teach them to be strategic content creators and authors rather than passive choosers of fonts and colors. I have accomplished this by immersing students in business research, professional practice, and the development of a precollege program. Students were also involved in the development of new materials (questionnaire, white papers, etc.) specifically created for the business audience.

Secondly, many business types equate the creative process with drawing and art (a “soft” discipline), when we know it is problem solving at its most fundamental level. In order to “inject art into commerce and elevate it from a business service to a cultural force,” as designer Tibor Kalman suggested, it is necessary to demystify the process and put design in terms the scientist and business person can understand. Thus, the question, “Can one objectify the creative process in a left-brained, planned and organized way?” “Designers make maps for places that don’t yet exist,” said Rowena Reed Kostellow, educator. Since those in the business world see
things in black and white — on a spreadsheet, graph or chart the bottom line so to speak — I have developed new materials that recontextualize design principles, process and practice for those in the business world.
CHAPTER 1 - INTRODUCTION

Graphic Design was born of the marketplace. It is what separates the designer from the fine artist. It has purpose beyond aesthetics. Communication is its raison d’être, be it economic, social, or political. Today, the flow of information and technological innovation expand by the nanosecond. Globalization is a force to be reckoned with. An average Joe, in the guise of a Napster, YouTube, or a news blog can bring a media institution to its knees. Yes, Toto, we are not in Kansas anymore. Modernism is no longer enough.

A graphic design curriculum for the twenty-first century must embrace and adapt to these changes. The model for the future must reflect the very design professional that will be sought by industry. This design professional will need a thorough understanding of the nature, processes, and language of the marketplace. Designers in this century will need to be specialists—yet, well-rounded. They must at once be thinkers, feelers, jugglers, innovators, artists, collaborators, entrepreneurs, critics, advocates, authors, and craftsmen. No small task. The design curriculum will need to be flexible, open-ended, open source, integrative, adaptable, continually evolving, customizable, interdisciplinary, and trans-media . . . essentially a living, breathing organism.

With this thesis, I propose that we embrace our past, unlike our modernist ancestors, and that we stand on the shoulders of these giants and “remix” antiquity, expand it, and incorporate new methods. In 1919, Walter Gropius created a “modernist” model of design education that envisioned design as the market force it was destined to be. This Bauhaus model, still used in design schools all over the world, includes immersion in the fine arts, and an apprenticeship (internship) and remains a firm foundation to build upon. How can we ever build a better tomorrow if we don’t understand and build on the ideas that have come before us? The presentation of these materials, questionnaires, observations, interviews, experiments, and extensive research, in addition to my nine years of teaching and work experience in the design field, provide the intellectual groundwork for this new methodology.
CHAPTER 2 - YES, MASTER . . . FROM VOLUNTEER SLAVERY TO STANDING ON THE SHOULDERS OF GIANTS

Though we are in the throes—or some say the end of the postmodern era, models of graphic design education still cling to the tenets of modernism “as if they were engraved on two big stone tablets,” as Natalia Ilyin says in her book on the topic, *Chasing the Perfect*. A recent issue of *Icon* magazine calls for a new “ism” for the twenty-first century and poses the question, “What comes after modernism?” No one seems to know where to go. So do we burn down the Bauhaus, metaphorically speaking? That is what they would have done. Utopia doesn’t exist—it will never exist as long as human beings inhabit this planet, and that is okay. Life is about glorious change and chaos. The process of living is messy. We can pretend to shut it out while inhabiting our perfectly designed houses, using our state-of-the-art technology, all the while ignoring the massive change going on around us. Natalia Ilyin says it best “The modernists built us a box—a box of rules and grids and values that kept the pain of reality at bay.” As educators, we need to embrace this change, not eschew it. It is necessary for higher education to adapt to our world today—our global, interconnected, hypermodern world. A model for design education today needs to prepare content creators and business partners, not rule followers and visual stylists.

It is imperative that this new model, this “hypermodernism,” not neglect our valuable past as did postmodernism. It produced a generation of designers who thought the grid had something to do with electricity. In recent years, I have seen a rigid return in my students to the rules and principles of the Swiss International Style. Their use of the complex grids, white space, and Akzidenz Grotesk or Helvetica is getting a bit tired. I had a conversation with one of our most talented students about his love affair with this style and cautioned him about the dangers of merely mirroring the past. How will we ever move forward if we don’t learn from it and then develop new forms? The new model must incorporate the fundamentals of the Bauhaus, the International Style, and postmodernism, continue to deal with complex process of modernization, and then go beyond these (Figure 1).
It is vital that a future model be eclectic, interdisciplinary, “self-organizing,” collaborative, and customizable—a sort of “choose your own adventure.” A flexible, adaptable curriculum model is necessary in order to prepare future students to deal with the change and complexity we will continue to experience. In the nine years I have taught the senior-level course, ART 4555, I have never taught it the same way twice. It is a course I call *The Design of Business, The Business of Design*. In the span of those nine years, we have seen the Internet boom, its bust, and our world’s adaptation and absorption of this technology. The new model needs to be flexible enough to adjust, engage, and adapt. I am not advocating that higher education follow every trend in the marketplace. There will always be the need for a sound core—but it is no longer possible to be slaves to tradition and mass production. As creatives, it is time to take the “best of” remix, recombine, expand, and add to this core and develop a new visual language for the twenty-first century. According to M. Jayne Fleener, “The rhythm of the curriculum, like the beating of our own hearts, is integral to schools as learning organizations.”
If you set a crowd of self-interested, independent people to work in a decentralized way on the same problem, instead of trying to direct their efforts from the top down, their collective solution is likely to be better than any solution you would come up with,” (as evidenced by the open source phenomenon that is Linux). (James Surowiecki, *The Wisdom of Crowds* [New York: Doubleday, 2004] 70)

Specialization and self-direction are the result of decentralization, as is collaboration of the best kind. The more brains involved in problem solving—one of the very purposes of design—the better the solutions. Educator Lev Manovich, in his *Remixing and Remixability*, talks about how designers utilize a variety of software and media in their work to get the job done. The curriculum needs to reflect this rich and hybrid methodology.

Forces affecting the development of such programs in higher education today are continued budget cuts and the soaring costs of instruction, intense competition between universities and from for-profit and virtual programs, and, of course the global knowledge explosion. There has also been a shift towards moving higher education from a public institution to a more market-driven one to deal with the above. The struggle there is how to do this without sacrificing higher education’s traditional values and basic goals. In addition, as these forces come into contact with the hierarchical nature and top down management style that is higher education, the result is often gridlock and resistance to change. Many continue to respond much in the same way as they did in earlier times, by returning to their territorial silos.

A few visionary universities and art schools are experimenting with new models. Two groundbreaking examples are the aforementioned dual design and business master’s degree program available at IIT and the Master of Science in Information Design and Technology (IDT) at Georgia Tech. The IDT program is housed in the School of Literature, Communication, and Culture, which has faculty with degrees in English, Art, Law, Classics, Film, Performance Studies, Mathematics, and Computer Science. I recently took a course entitled *Interactive Design* online at Art Center College of Design. The course was conducted through the school server and iTunes, using audio and video podcasts. Just as we use our software’s capacity for
“import” and “export,” the curriculum needs to do the same across time and space, disciplines, universities, industry, and technology. It is time to expand our visual language and design new forms for education. We are designers after all.

In order to survive in the marketplace today, designers need an diverse array of skills at their fingertips. They must be conceptual, critical, and strategic thinkers, well versed in an ever-expanding array of software and media, fluent in the language and fundamental principles of visual design, and have a considerable knowledge of the language and processes of business, entrepreneurship, cognitive psychology, cultural anthropology, and much more. Design programs have an opportunity to meet this need by developing new alternatives and open-ended models that integrate technology and connect disciplines, universities, and industry, models that center on customization, collaboration, and self-direction.

Laszlo Moholy-Nagy wrote in 1938 in his *New Vision*, “Our time is one of transition, one of striving toward a synthesis of all knowledge. A person with imagination can function now as an integrator.” He went on to call for “an integration of intellectual achievements in politics, science, art, technology, in all the realms of human activity.” These words were so prophetic—the difference today being the “speed” at which (and the Futurists thought they were going fast) information moves. Gunnar Swanson, design educator, also advocates an adaptable curriculum. Since design has no select body of knowledge it can call its own, but borrows from and intersects with many disciplines, it makes sense that the curriculum model be integrative.

Employing the marketing tools outlined in *Blue Ocean Strategy* by W. Chan Kim and Renée Mauborgne, I recommend divergence from the higher education, status-quo pack and the development of collaboratories with a new strategy for design education. This strategy would employ a scheme of open specificity similar to that of Linux (the widely available, Unix-type operating system originally created by Linus Torvalds with the subsequent input of developers around the world) and the Dutch design firm Droog (Figure 2).
The common denominator for this series of remarkable products is their ability to combine mass production and individual identity. Droog Design products have added a new dimension to the word customization. (Renny Ramakers and Gijs Bakker, *Simply Droog* [Amsterdam: Droog, 2004], 58)

These collaboratories should focus on the strengths of their faculty, create new offerings, and raise these well above the industry level. Instead of duplicating services and classes for which they are not equipped or funded, allow students to take these in other departments or at other universities that are specialists in that field. This can be accomplished by relaxing requirements and transfer policies and allowing students to customize their programs. It also reduces cost, as the department does not have to be “all things to all people.” The new curriculum should be:

Figure 2. Frank Tjepkemas and Peter van der Jagt’s Do Break Vase, Droog, 1999. The vase is lined with a layer of silicon on the inside so that you can smash it and it will still stay intact—yet it will be your own unique vase—as an example of their open specific design approach (mass-produced, yet customized).
1. **Decentralized** - allowing for self-organization, customization and adaptation

2. **Strategic** - focused on strengths with a clear identity

3. **Trans-time and trans-media** - anywhere, anytime education

4. **Connected** - partnerships with other departments, universities, and industry

5. **Experiential** - how to learn, not what to learn, independent inquiry, students as content creators

6. **Hybrid** - team teaching, faculty as “knowledge brokers”

7. **Transparent** - free flow of information, trust, no more silos

8. **Rewarding** - favoring collaboration and accountability

9. **Visionary** - develop new hybrid courses such as Trans-media Typography, Design Entrepreneurship, Communication Methods, etc.

10. **Entrepreneurial** - develop alternative sources of income utilizing the staff, equipment, and space you already have (e.g., precollege programs, online courses, subscription-based e-newsletters, professional workshops, etc. that could be held on weekends or during summer breaks and that employ graduate students and recent graduates).

   These goals are completely compatible with higher education’s core values of academic freedom, preservation of our cultural institutions, and scholarship. We need to build it so that they will come. If we don’t, someone else will. They are building it right now.
The era of “left brain” dominance—and the Information Age it engendered—is giving way to a new world in which “right brain” qualities—inventiveness, empathy, meaning—will govern . . .

The MFA is the new MBA. (Dan Pink, *A Whole New Mind* [New York: Riverhead Books, 2005], 54)

As mentioned previously, business magazines abound with articles bearing such titles as “The Business of Design,” “The Best D-School for Creative Talent,” and “The Future of Business is Design.” A few cutting-edge business schools such as Stanford’s new Institute of Design are adding programs and coursework that bridge the gap between these left-brained and right-brained worlds. Design is fast becoming the business imperative—the differentiator for the twenty-first century. So here is where the right-brained tell you that design is going to change the world. Yes, all designers believe that, and yes, we have heard those in the business sector refer to design as a “soft discipline.” Remember the best-selling business book, *It’s Not the Big that Eat the Small, It’s the Fast that Eat the Slow*? I predict that those who continue to think that design is “soft” will be flattened by those who know and harness its power. Well, how about I back this up? Let’s address design as a noun. This is where we fall into the “soft discipline” trap. As a noun, it is something to look at, hand out, hang on your wall, or something to contract out at the end of the process. It is the verb “design” that changes the game. As a verb, it is a process, a method by which you conceive, create, compel, and contract.

Think iPod (who isn’t thinking iPod these days?). From the cool, out-of-the-box experience and packaging, the advertising, the simplicity and usability of the product, the easy-to-follow instructions, excellent consumer experience on the web or in the hip Apple store, to the tech support (genius Genius Bar), superior design is infused at every level. As a verb, the key is that design is an integral part of the business cycle from beginning to end. We are witnessing a great convergence between design and business. They are becoming more interdependent by the day. Designers are being called on to manage huge, global brands. What does this mean for design schools? Again, we had better get busy with new models. It is vital that the new curriculum fill
this gap. In order to become business partners and understand the needs of their clients, design students need to be well versed in the language, processes, and practice of business. In addition, I have had more and more students come to me in recent years for advice on how to start their own design firms, license and manufacture their own product lines, and start their own related businesses.

Last spring, I had the opportunity to visit Insead, the international business school located outside Paris. They have forged a unique new partnership with Art Center College of Design in California. They paired teams of MBAs with graduate design students and assigned them industry partners with real business models to develop. The results were amazing, as were the results of the follow-up evaluation. All participants said that the biggest hurdle was learning one another’s language. This summer, while attending a Design Management Institute seminar entitled “Integrating Design into Strategic Management Processes,” I realized that the job of the designer and the business manager are more alike than different. The instructor, Dr. Ron Sanchez, Professor of Management from the Copenhagen School of Business, described a manager’s job “as having to solve the same, complex puzzle over and over again.” They make maps called strategic plans and navigate complexity and change. They develop systems and problem solve. Wait a minute, are we talking about managers here or designers? This could be the job description for either.

It is our job as educators to create new offerings that immerse design students in commerce and develop the skills that will enable them to work with business and industry as well as develop their own successful businesses. Hybrid courses with marketing and business departments as well as coursework in design entrepreneurship can address these needs. Opportunities for professional practice through the creation of student-run design firms and the creation of tools and materials specifically for the business audience are ways in which students can expand their skill set. Several of these ideas have been implemented in both the Graphic Design Student Office at LSU and in ART 4555, Advanced Graphic Design. These are discussed in depth in the following chapters.
CHAPTER 5 - EXQUISITE CORPSE: THE HEAD, HAND, AND HEART MODEL

Over the years as an instructor of design, I have noticed that as students develop and shape their design consciousness, they tend to fall into one of three categories with some slight overlap. I have named those categories:

1. MASTER OF THE UNIVERSE (HEAD) - very attuned to the strategic, powerful and persuasive side of design, it’s all about building a business, a brand, a product line (e.g., Michael Graves, Rudy VanderLans, Yves Behar)

2. ROCK STAR (HAND) - it is all about them and finding and selling their own “style” as a means to an end (e.g., Eboy, David Carson, Stefan Sagmeister).

3. SUPERHERO (HEART) - the designer who wishes to save or change the world; uses design as a means to shock, provoke, and call people to action; very interested in social responsibility and issues like sustainability (e.g., Bruce Mau, James Victoire).

It is vitally necessary that a new model be flexible and open enough to address the needs of all of these students and prepare them to be design leaders who have the ability to manage complexity, develop new communication methods trans-media (across time and space), and adapt to and positively affect the challenges of the twenty-first century. As Zen Master Suzuki Roshi says, “To control your cow, give it a bigger pasture.” A model like this will effectively raise design from a “craft or veneer” issue to the level of driver of economic and societal change and equip tomorrow’s design leaders.

While viewing the 1934 film Metropolis by Fritz Lang last spring, I saw the following quote: “Between head and hands must be the heart.” It became the metaphor for the new model. The model is a self-organizing, modular ecosystem that is open to adaptation and modification. This model allows each student to choose and develop their own academic adventure and build their own “exquisite corpse” with the heart or humanity at the center.

The overall program model integrates business, art, and human factors—the head, hand, and heart modules. Research has shown that when business (head) and art (hand) collaborate, the results are superior solutions, products, and services for society (heart) (Figure 3).
Figure 3. The Head, Hand, & Heart Design Curriculum Model

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Design Curriculum Model

Design, hand, & heart
Requirements could be relaxed to include more flexibility between disciplines and choices outside the university (other accredited schools and online options). Borrowing from James Paul Gee’s “36 Learning Principles,” from his book entitled *What Video Games Have to Teach Us about Learning and Literacy*, principle number 36 states, “The learner is an ‘insider,’ ‘teacher,’ and ‘producer’ (not just a ‘consumer’) able to customize the learning experience and domain/game from the beginning and throughout the experience.” Each student could construct their “exquisite corpse” in order reach their own personal goals. (Figure 4).

In addition to the new curriculum model, it was necessary to expand the creative problem-solving process to accommodate the new challenges facing our students. THE HEAD, HAND, & HEART MATRIX was developed for this purpose (Figure 5).
Figure 4. The Head, Hand, & Heart Customized Student Program Model
Figure 5. Head, Hand, & Heart Matrix
In order to achieve the goals of this thesis, it was necessary to research and implement components of this model. As my professor Rod Parker taught me, “Show us the world as we’ve not seen it before. Make the familiar strange; distinguish that which was undifferentiated; illuminate the dark; expose the spiritual poverty behind the glamour of the ‘scoreboard;’ isolate subject matter for study; re-enchant that which has lost meaning.” To immerse students in the language and process of business, the role of the Graphic Design Student Office (GDSO) was expanded. GDSO is an award-winning, student-run design firm under the direction of Louisiana State University faculty members. GDSO provides a service-learning environment where practice, not profit, is the goal for students, and it serves as a creative resource for LSU and the surrounding community. A self-sustaining entity, GDSO seeks to emphasize the importance of exemplary design and its indispensable impact on businesses, institutions, and society. GDSO is a creative collective of students from many different cultures, backgrounds, and disciplines with one common denominator—passion for strategic and aesthetic excellence.

After participating in a Deep Dive, the creative problem-solving methodology developed by IDEO, we surveyed faculty and students as to the uses of the MaD Lab, GDSO’s present home. The results revealed that the lab needed to be multipurpose and include classroom and presentation space, an office, an overflow workspace for GDSO when the lab was being used by faculty, and a library meeting space. Based on this information, we developed a space plan, cleaned out the back room, organized a technology closet, painted, and refurnished the back area. The lab is presently being used as classroom, workshop space, think tank, design office, library, and meeting place.

Now that the space was organized, it was time to expand the students’ skill set. The following inquiry-based learning module was assigned to GDSO students:
GDSO Research Project 1 . . . Design + Business

Background
As a partner in a design firm for many years, I have witnessed, firsthand, the tremendous value design brings to the marketplace. Since one of the main goals of GDSO is to immerse you in professional practice, I see an opportunity to educate the business world as to what we do and how they can use design as a strategic tool. This is not an easy task, as the business mind is very left-brained. Our job will be to “recontextualize” or “remix” design content/education and give it a new sense of purpose for this audience. In an attempt to bridge this gap as well as plan for the future of GDSO as a self-sustaining operation, I propose a project to do just this, build a bridge.

Process
- Name of entity (business & design, think acronym or other clever term or combo that would appeal to corporate types)
- Focus on the value design adds to business and how important it is to involve designers at the beginning of the process (strategic planning and all phases)
- Develop corresponding website, white papers (freeware/shareware initially), and video podcasts
- Begin with a brief e-newsletter or QuickTime movie about a topic that all partners would relate to
- Include links, good books to follow up with, etc.
- Include a call to action/survey questionnaire that asks them what other topics they would like to see (give them choices and ask them to write in others) and ways in which we can help make their job easier, and ask in which format they prefer to receive information like this
First, a questionnaire (Appendix A) was developed to determine business professionals’ attitudes towards design and design content, and their preferences for topics and presentation mode related to design. Students from both the design and mass communications disciplines helped edit and launch the survey on www.surveymonkey.com. Survey population was very diverse as to field of business, cultural background, and age, thanks to opportunities to administer questionnaire at Insead, the University of Mississippi Business School, and four of my Fortune 500 clients. Some of the highlights are as follows (Figure 6):

Figure 6. Business Professionals’ Survey Highlights

The next step was to translate these results into actions. We then moved on to naming the new entity. A brainstorming session produced numerous possibilities. We voted on the top three and included them in the survey. Though Improving Business by Design was the overall
favorite of business types, the designers loved the acronym *G.R.I.D.*, which stands for *Get Results, Incorporate Design*. Interestingly enough, the voting broke much as we anticipated, with the more left-brained types choosing the more literal name and the right-brained group choosing the more conceptual, art-related name. We decided to compromise and go with *D2B . . . Design to Business*. PowerPoint and e-newsletter formats were the overwhelming favorite of business professionals for the delivery of design-related information. To this end, I developed a series of web modules that conveyed the principles, practice, and process of design in short, humorous tutorials (Figure 7). Additional materials were created for GDSO, such as a handbook and Keynote presentation that discuss the value design adds to business.

Following this, I originated a plan for *White Space* (Appendix B), a precollege design, entrepreneurship, and technology program for high school students at Louisiana State University and the Jetson Correctional Institute. The name, a working title, comes from the Jargon Watch column of *Wired* magazine: “White Space  n. A potentially lucrative market for which no products or services yet exist—because nobody has thought to make people desire those hypothetical products or services.” The mission and vision of the program are as follows:

I. MISSION - *White Space* is a year-round, non-profit multidisciplinary educational program that provides high school students the opportunity to develop art, design, technological, and entrepreneurial skills that will enable them to make a significant difference in the world while preparing them for higher education and a professional career.

II. VISION - Art and design open minds and build the foundation for great communities. *White Space* is committed to developing the minds, self-esteem, and creative thinking skills of our youth as well as awakening their civic responsibility, thereby positively impacting the economy and culture of the state of Louisiana.

An important component of the Head, Hand, and Heart Model is that students become content creators, not merely “vessels to be filled.” Garth Holmes, a recent graduate in Graphic Design and GDSO member, has joined me in the *White Space* effort and is working closely with me in researching grant opportunities, developing a budget, and writing a grant. I also offered an
Figure 7. Web tutorial on the topic of the design principles of C. R. A. P.: Contrast, Repetition, Alignment, and Proximity
opportunity to work on the new identity, marketing materials and ethnographic research to my senior class, ART 4555. A group of five students is spearheading this along with input from Rod Parker, associate professor of Graphic Design, and Stuart Baron, School of Art director. We look to build partnerships with other disciplines in the process. Already, GDSO has partnered with Mass Communications on their National Campaigns Competition and met with the Ourso Entrepreneurship Institute about partnering with them on their National Business Plan Competition.

Another group of students in ART 4555 is working this semester with Erin McKean, editor of the *Oxford American Dictionary*. I met Erin at The Art Center College of Design’s “Radical Craft Conference” back in March. She challenged design educators to “create suicide doors” for a product that has not been redesigned in a century—the dictionary. She also made it clear that this challenge would include “rethinking the idea of the book” and researching future technologies and systems of delivery. I took her up on this challenge and my students are conducting some amazing research and working closely with internationally known font designer (and LSU alumnus) Tal Leming. They hope to tackle the development of a very condensed/agate font that could clearly and distinctly display the enormous corpus that is the dictionary.

As to the goal of recontextualizing design content for the business professional, I have observed through the years, as a partner in a design firm, that designers and business professionals have preconceived ideas about one another. The questionnaire results and my visit to Insead confirmed this. Thus, I developed a short film entitled *Head, Hand, & Heart . . . A Merger of Epic Proportions* (Figure 8) as an icebreaker, and a learning module called *A Whole New Mindset* for business educators (Appendix C) to pave the way for incorporating design methodology into the business process.

This was followed by the creation of the D2B Web site (Figure 9) and the first learning modules for our business partners. Using a contemporary and humorous, yet professional tone, I
designed the modules to be short and to the point, as the research showed that this was vital to appealing to managers with their jam-packed schedules. The site opens up many possibilities for sources of revenue, such as a subscription service or membership where professionals can access online courses, learning modules, workshop schedules, e-books, etc.

Figure 8. Head, Hand, & Heart Movie Stills
One of the modules is called Ideopolis (Figure 10) and includes a simulation card game where creatives and business types assume one another’s roles. The goal of this game is to bridge the gap between art and science—design and business—and create outstanding companies, services, products, and workers. The game is a combination of Strip Poker, where players strip away preconceived ideas about the other profession (design and business), and Pig, where players are immersed in the language, principles, and practice of one another’s fields. Teams compete for the title Master of the Universe.
Figure 10. Ideopolis Simulation Game
CHAPTER 7 - CONCLUSION

As I write this chapter, the October 9, 2006 issue of *Business Week* lists the top D-schools in the world. Interestingly enough, many of the schools are business or engineering schools. Of the 60 listed, only 15 are schools of art and design in the United States. Of the other U. S. schools, 15 are business, engineering, or technology schools. Design undergraduates need a new skill set to deal with the twenty-first century challenges of information expansion and globalization. Designers are polymaths with a vast depth and breadth of information and the ability to see the big picture and the patterns hidden within. The new curriculum needs to embody and nurture these abilities. By my own experience, the hierarchical structure of higher education will be the biggest hurdle to overcome in order to enact new forms of education.

Along with new models, higher education will need to create new revenue streams such as the White Space precollege program and the D2B website. The addition of professional workshops and online classes should follow. The income generated by these entities could help expand our facilities and offerings at every level. Designers and design programs will need to “demonstrate” the value of design and design thinking, not merely talk about it.

Design thinking has become a strategic business tool, and designers must be equipped to speak the language of the business manager. These managers have to prioritize and manipulate so many variables that they are often overwhelmed. Design makes strategy visible, according to Brigitte Borja de Mozota, author of *Design Management*. Designers need to be trained to develop simple and viable strategic tools and methods that will make managers’ jobs easier, create valuable products and services, and ultimately transform society. The models and tools in this thesis are a step in this direction. Much more needs to be done, though. It is critical that design schools, which are the gatekeepers of design thinking, step up and take the reins of leadership and develop new forms of education before they are squeezed out.
REFERENCES


APPENDIX A - BUSINESS PROFESSIONALS’ QUESTIONNAIRE

1. Do you consider design a strategic tool in business?
   Totally agree
   Partially agree
   Neither agree nor disagree
   Partially disagree
   Totally disagree

2. Do you feel that design can create new demand for a product or service?
   Totally agree
   Partially agree
   Neither agree nor disagree
   Partially disagree
   Totally disagree

3. Are you ever responsible for design-related decisions at your job?
   Every day or more
   Two to five times a week
   Once a week
   Once a month
   Never

4. Are you expected to have design knowledge in your present occupation?
   Extensive knowledge
   Some knowledge
   Very little knowledge
   None
5. What is the extent of your knowledge of the principles, process, and practice of design?

- Extensive knowledge
- Some knowledge
- Very little
- None

6. What is the extent of your experience working with designers?

- Extensive experience
- Some experience
- Very little experience
- None

7. Which field of business most applies to you?

- Marketing
- Sales
- Management
- Public Administration
- Finance
- Executive
- Other

8. Which age range applies to you?

- 18-29
- 30-39
- 40-49
- 50-59
- 60 +
9. Which response applies to you?
   Male
   Female

10. Which is the highest level of education you have completed?
    High school
    Associate’s degree
    Bachelor’s degree
    Graduate degree
    Other

11. How would you prefer to receive future information on the strategic use of design in business?
    PowerPoint presentation
    E-newsletter
    Video podcast
    DVD
    Workshop
    PDF
    Not interested
    Other

12. Which of these titles would you be most likely to read?
    G.R.I.D. Get Results, Incorporate Design
    Improving Business by Design
    D2B . . . Design to Business
    None of the above
    Suggested title . . .
13. Would you be interested in attending Improving Business By Design workshops?
   
   Very interested
   Somewhat interested
   Slightly uninterested
   Totally uninterested

14. Which of these topics would be of interest to you in your job? Check all that apply.
   
   Dr. Frankenstein was a Designer: Design Mavericks (Case Studies)
   Design Entrepreneurship
   Process, Principles, and Practice of Design
   Corporate Identity
   Corporate Communications
   Design Management
   Product Innovation
   Strategic Branding and Design
   Managing Web Design
   Self-Promotion
   Generating Ideas
   Innovation/Creative Problem Solving
   Information Design
   Presentation Design
   Top Ten Ways to Kill Innovation
   50 Ways to Heighten your Design Perception
   Corporate Identity Makeover
   Packaging
   Environmental and Workplace Design
   Production and Printing 101
   Design as a Strategic Tool in Business
15. How would you rate your experience with utilizing design in business?

   Excellent
   Good
   Poor
   Very poor
   Not applicable

16. What is the most frustrating aspect about working with designers/creatives?

   Creatives don’t get how business works
   The creative process is chaotic
   Design is hard to measure
   Not sure of the value
   Other

17. Can you please describe an exceptionally good or bad design experience you have had.

18. How would you improve the business-design team experience?

   Better communication
   More measurable results
   More focus on business strategies
   Better understanding of the creative process
   Better method of bridging the gap between the two worlds
   Other
19. What do you consider to be the main objective of “good design?”

- To maintain a consistent corporate image
- To create brand awareness among consumers
- To enhance sales revenues
- To aid in targeting consumer audiences
- To ensure customer satisfaction
- To develop useful products
- To aid in operational excellence
- Other

20. Would you like to be added to our mailing list and to receive notice of future workshops, e-newsletters, etc.?

E-mail ___________________ (Your information will be kept confidential and your e-mail address will not be shared with anyone else.)
APPENDIX B - WHITE SPACE

White Space  

A potentially lucrative market for which no products or services yet exist—because nobody has thought to make people desire those hypothetical products or services.  

~FROM WIRED’S JARGON WATCH

WHITE SPACE - A Precollege Design, Entrepreneurship, and Technology Program for High School Students at Louisiana State University and At-risk Youth at the Jetson Juvenile Corrections Program. White Space is a joint effort between Louisiana State University and the Office of Youth Development.

I. Mission - White Space is a year-round, non-profit, multidisciplinary educational program that provides high school students the opportunity to develop art, design, technological, and entrepreneurial skills that will enable them to make a significant difference in the world while preparing them for higher education and a professional career.

II. Vision - Art and design open minds and build the foundation for great communities. White Space is committed to developing the minds, self-esteem, and creative thinking skills of our youth as well as awakening their civic responsibility, thereby positively affecting the economy and culture of the state of Louisiana.

III. Goals - Year One Goals

1. To increase awareness as to the value of design and art, what the different disciplines of design and art are, and how they can affect business and society.
2. To encourage students to stay in school and show them that there are education and career opportunities for students who are more right-brained.
3. To provide high school students with an outlet for their emotions and talents.
4. To expose at-risk high school students to the arts, and educate them as to the impact they have made on society throughout the ages.
5. To educate at-risk high school students in the basic and professional skills necessary to make the transition to trade school, higher education or the workforce.
6. To develop a program that is self-sustaining and will serve as a potential recruitment tool for the college-level program.
7. To offer present undergraduates service-learning mentorships with Jetson partners and offer all students peer-to-peer learning and teaching opportunities, as well as the chance to develop learning modules.
8. To provide job opportunities for recent graduates and professionals in the community and encourage them to stay in Baton Rouge.
9. To expand the mission of the Graphic Design Student Office, a student-run design agency at LSU, to include a partner agency at Jetson.

Year Three Goals
1. To expand the curriculum and broaden the program
2. To include courses in all the art disciplines
3. To partner with other disciplines such as LCAT, Mass Communications, as well as the Shaw Center and the Ourso Entrepreneurship Institute
4. To provide scholarships and internship opportunities for at-risk youth and the underserved in the community.
5. To develop and implement entrepreneurship opportunities for student agencies at LSU and Jetson.
IV. Target Market

Interested high school and at-risk students. Artistic, hip, and in some cases a little off-beat. They get it and are open-minded, creative thinkers with a sense of humor. Art is often their outlet—their safe haven. Not easily taken in—see through the “poseur.” Very bright and inquisitive, though not necessarily in traditional core subjects like math.

V. Wish List

• Stipends (Program Director, Coordinators, Faculty, etc.)
• Furniture for lab and office
• Office supplies
• Hardware
• Software
• Storage
• Wiring/Electrical
• Video and digital cameras, tripods, etc.
• Library
• Marketing materials
• Postage

VI. Grant and Funding Sources

• Dr. Ronald Feinstein, M.D., LSU Health Services
• Grants for Arts Projects: Learning in the Arts for Children and Youth (up to $150,000)
• Coca-Cola Foundation
• George Lucas Educational Foundation (GLEF)
• The Graphic Arts Education and Research Foundation (GAERF)
• American Institute of Graphic Arts (AIGA)
• Virtue Foundation

VIII. Spring, 2007 Offerings

• Choose Your Own Adventure Web Design - beginning web design using PhotoShop and ImageReady
• Teen Entrepreneurs - create and develop own product idea (game, clothing, etc.), logos, ads, packaging and product sketches
• Teen Zines - beginning page layout and illustration using InDesign and PhotoShop
• Comic Books and Storytelling - storyboards and illustration using Illustrator
• Graphic Design I - fundamentals
• 3D Modeling or Podcasting - depending on staff availability

Ten-week Saturday classes are priced at $350 for digital classes and $250 for non-digital. An additional supply list and cost will be provided each student (~$40-50). If we estimate 18 students per class, first-semester potential income could be $34,200 before expenses.
I think business and design educations should converge. I’m finding it hard to think about 21st century business without a great convergence between design education and business education. (Roger Martin, Dean, Rotman School of Management)

A few years back, a business associate and I had the opportunity to view “The Art of the Motorcycle” at the Guggenheim in New York, an unusual yet fascinating exhibit for an art museum. The show was a chronological history of the motorcycle, and you could see the evolution of the big brands such as Harley, the very essence of cool, even in 1903.

What we sell is the ability for a 43-year-old accountant to dress in black leather, ride through small towns and have people be afraid of him. (Harley-Davidson Executive)

For us, with my background in design and my associate’s in advertising, the highlight of the show appeared about a fourth of the way up the famous spiral. There it was—The Flying Merkle. Bright orange and resembling a girl’s bicycle, it certainly was one-of-a-kind. We could not contain our laughter. The Merkle was the ultimate example of bad design decisions at every level. Let’s start with the name—sounds like a circus act; the color—think clowns; the product design—again, think clowns. The Merkle certainly wouldn’t inspire fear. Let’s switch gears and take a look at Harley again. They know their audience. From the design of the bikes to their showrooms, the corporate culture, the advertising, the products, great design is integral at Harley.

Think about companies such as Apple, Starbucks, JetBlue, Target, OXO, and FedEx. Design and advertising executives will tell you that many of their new clients will begin the first meeting with “We want to be like Starbucks or Apple.” What do these companies all have in common? Design thinking is infused in all they do. I don’t have to tell this audience about the global business climate. Dan Pink, in his book A Whole New Mind, states that the drivers of change in this century are “overabundance, Asia and automation,” and that “The MFA is the new MBA.” The Information Age has run its course.
What does this mean for business schools? As educators, we must develop curricula that stimulate these R-directed thinking skills in the leaders of tomorrow. Business doesn’t like change. Higher education likes it even less. If higher education were a corporation, it would have been out of business twenty years ago. In order to change the mindset of business, we have to start here.

With MBA enrollments down, B-schools are striving to become more relevant to prospective students. To remain leading suppliers of management talent to corporations, consulting firms, investment banks, and other businesses, B-schools are being forced to adapt to a changing world.” (Jennifer Merritt and Louis Lavelle, “Tomorrow’s B-School? It Might Be a D-School” [Business Week, August 1, 2005], 80)

D-schools at IIT, Insead/Art Center College of Design, and Stanford University are already blazing a trail. Why follow when you can lead?

I am going out on a limb here, but some of you are probably thinking, “Yeah, that is all well and good for the R&D people and marketing, but I am in management. This has no practical application for me.” I ask you, do you ever generate ideas, work with systems, organize something, develop strategy, map something, mediate disputes? Yes? Well, then, this very much applies to you. You already are a creative problem solver, and design is fundamentally that. I also use the terms innovation and design interchangeably, though many think of design as the means to innovation. Innovation is not the sole property of product design. We are talking semantics here. Design—innovation is taking place every day, in every business, in every unit on the globe. Of course, some are doing it better than others. I just received an “intensive” program brochure from the MIT Sloan School of Management on the topic of “Reinventing Your Business Strategy.” Right there, among the buzzwords “decommoditize,” “differentiation,” “value proposition,” etc., lay the heart of the workshop: reinvent, innovative restructuring, and segmenting more creatively—all so-called “soft” design terms. The brochure goes on to explain a new model for this process. I challenge you to create your own models. As I have stated, all of you are doing this to some degree already. In her book Design Management: Using Design to
Build Brand Value and Corporate Innovation, Brigitte Borja De Mozota addresses the convergence of design and management. She breaks design down into categories. There is design as a basic problem-solving activity. Here it can be creative, which we have already addressed, and scientific—think observation, hypothesis, testing, solution. Design is a logical, step-by-step method—problem identification, fact-finding, ideation, solutions finding, evaluation, and implementation. Design is also systemic and decisional, as when you organize a complex business system or operation, departmentalize or develop information architecture. All of these require creative thinking and problem solving. The better you are at it, the more outstanding and effective the outcome. Finally, design is cultural, which is unfortunately where most people pigeonhole and limit it.

Why not become a master of design? Business schools as well as design schools are quickly becoming commodities. I echo Tom Peters’ challenge to “create waves of lust” for your program, your classes and your graduates. Strategic design = organizational success. Idea generation = solutions = economic growth.

Let’s walk in each other’s shoes and reap the many benefits. I propose a business/design school challenge: HOW TO INTEGRATE DESIGN INTO THE BUSINESS CURRICULUM, OR “WHEN WORLD’S COLLIDE”:

1. **Incite change.** Change is driven from the top down. When referring to working in Silicon Valley, Juan Enriq says, “Stability is a mark of shame.” Higher education needs to take a page from the valley’s book and shake things up.

2. **Cross pollinate.** Read materials outside of your discipline. While at the airport, Tom Peters grabs all sorts of magazines, newspapers and books that he wouldn’t ordinarily read and reads them on the plane. Try some design-related content. The web is full of design-related content. See sources at the end of this paper for some suggestions. In Harvard Business Review, Jeffrey West gave this example “And Koichi Nishimura, the retired CEO of Solectron who’s now on
our board told me that a talk on ant foraging he heard at SFI helped him think about ways to improve the company’s distribution network.”

3. **Feed the monster.** Expose yourself and your students to ethnographic methods and train them in creative problem solving. Look at your current class list with a beginner’s mind (Zen) or with the eyes of a child. It is a way of clearing out the preconceived ideas. Are you having fun? Are you bored? Stale? What do your reviews say the students think about your classes? Perform a little CPS (creative problem solving) on your syllabus. CPS is CPR for the Old School.

4. **DIY (Do It Yourself). Cultivate and reward creativity.** Begin with open-ended group projects that employ the creative problem-solving process. Role-play, scenario build, strategy map, rapid prototype, etc. Carry a small journal. Note examples of good and bad design and why you think so. What are your pet peeves? How could they be improved? Collect well-designed ads, logos, stamps, flyers, ephemera.

5. **Develop business content for the design audience.** Forcing yourself to look at your discipline through their eyes and then recontextualizing the information to appeal to a right-brained audience will open up myriad opportunities. Speak at a design conference or workshop. Encourage your students to do the same and learn by creating content (not just absorbing it).

6. **Step out of your comfort zone.** Attend a design conference or workshop. Check out artcenter.edu. Their conference is usually held in March and is interdisciplinary. It is spectacular. This year, I sat next to a CFO/attorney who was doing just that—stepping out of her comfort zone. Kudos to her. As Jack Welch says, “If you don’t change, you’ll end up playing defense in a losing game.”
7. **Close the knowledge gap.** Develop required coursework, not just workshops or electives. Get others in the department out of their silos. Studies have shown that initially, business students find the creative process messy and disconcerting. Persevere. Again, think “out of the comfort zone.”

8. **Let go of the control mentality . . . the old “you can’t measure creativity” attitude.**
Design management is a process—a sequenced methodology. It is more measurable than you think, as evidenced by the aforementioned Apple, Starbucks, FedEx, JetBlue, Target, etc. “The most beautiful curve is a rising sales graph,” claimed Raymond Lowey, famous industrial designer. (See, designers do think about profits.)

9. **Build cross-functional teams.** Team-teach with members of your school’s or another’s design faculty. Develop interdisciplinary coursework and exchange programs. At LSU, we have the Graphic Design Student Office, a full-service strategic communications firm run by undergraduate and graduate students from Design, Mass Communications and Architecture.

10. **Be a design champion.** Disrupt the status quo. Push for revised accreditation standards that include design curricula.

**SOME POSSIBLE CURRICULA FOR DEVELOPMENT IN BUSINESS SCHOOLS**

1. Basic Principles, Process, and Practice of Design
2. Methods of Creative Problem Solving and Systems-Level Analysis
3. Design Planning, Strategy, and Management
4. Strategic Communications
5. Strategic Branding and Corporate Identity
SOURCES FOR MORE INFORMATION

Websites:
1. American Institute of Graphic Arts: www.aiga.org/ (treasure trove of strategic design information, conferences, etc.)
2. Core 77: www.core77.com (wealth of articles, links, books about industrial design)
3. Corporate Design Foundation: www.cdf.org (order their free @Issue business and design journal)
4. Design Management Institute: www.dmi.org
5. Design Observer: www.designobserver.com (wealth of articles, links, books about design)

Books:
A Whole New Mind by Daniel Pink
Blink by Malcolm Gladwell
Blue Ocean Strategy: How to Create Uncontested Market Space and Make the Competition Irrelevant by W. Chan Kim and Renée Mauborgne
How to See: A Guide to Reading our Man-Made Environment by George Nelson
Ideo Method Cards (www.ideo.com)
The Art of Innovation by Tom Kelley
The Wisdom of Crowds by James Surowiecki

Magazines:
Communication Arts
Graphis
I.D.
Metropolis
Wired
Finally, I will leave you with the words of former GE CEO Jack Welch: “You can’t behave in a calm, rational manner. You’ve got to be out there on the lunatic fringe.” So what are you waiting for?
GALLERY IMAGES

Gallery Image 1

Gallery Image 2
Patricia Vining was born in Oakdale, New York, to a loving and highly opinionated family. Pat actually began her career as an elementary school teacher. Returning to school years later, she became a partner with Vining Barton Design, a graphic design and strategic communications firm based in Baton Rouge, Louisiana, where she helped build a substantial clientele base including several Fortune 500 companies. The firm’s award-winning projects have included corporate identity, marketing and strategic planning, print collateral, environmental graphics, commercial interior design, illustration, information graphics, and more. She also raised two daughters who are the light of her life and has had the good fortune to act as an adjunct professor of graphic design at LSU for nine years. Organizations and volunteer work include AIGANO (American Institute of Graphic Artists), Advertising Federation of Greater Baton Rouge, Society for Environmental Graphic Design, Baton Rouge Symphony League, Girl Scouts, and too many parents’ associations to remember.