Expanding Design Opportunities in Research

Creating Viable, Interdisciplinary Research Partnerships Between Designers and People in Universities Who Haven't Been to Design School

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Jorge Frascara was the Coordinator of the Visual Communication Design program at the University of Alberta, Canada when he wrote this 11 years ago:

“...the design of the design method and the design of the research method are tasks of a higher order than the design of the communications.”

Far too few contemporary design educators, practitioners and students possess enough deep working or synthetic knowledge of design history, theory and criticism to use these as means to evolve design practice beyond stylization and functionalism.

Engaging in pure (or basic) and applied research as a means to propose, create or question new knowledge or solve problems should be a fundamental curricular and pedagogic objective in university-level design education. But often it’s not...
This results in a design discipline whose practice is largely defined by those who use design as a service, and as a means to create the perception of credibility. This is very different from a design discipline within which designers and other professionals work collaboratively to:

- strengthen both communities and companies to enhance their symbiotic support of each other;
- facilitate the day-to-day sustenance of an organization;
- overcome limits imposed by social and cultural barriers;
- develop goods and services that are competitive in the world market;
- help ensure the success of micro-enterprise businesses;
create opportunities for low-wage earners (⅔ of the world’s population) to become producers as a means to raise their level of income;

support best practices in professional media/journalism;

check the onslaught of “Orlandoism—” the creation and allure of commodified exurban environments that foster consumption over production;

cultivate environmentally sustainable communities by encouraging the responsible production of the components, products and systems that comprise them;

attack social and public health crises by instigating and supporting the maintenance of topic-specific education programs in public schools.
Students enrolled in the graduate and undergraduate programs in communication design at The University of North Texas (UNT) are introduced to research methods as a means to better understand how a wide variety of practical and theoretical issues affect how and why objects and systems are made and unmade, perceived, used, contextualized and criticized.

People who pursue research agendas on university campuses who haven’t been to design school tend to learn what type of endeavors constitute pure research and applied research when they’re enrolled in undergraduate programs, or early in their graduate experiences. They also learn, as part of the history of their disciplines and by being immersed in learning situations, when and how to use primary, secondary and tertiary research to address either pure or applied problems.
Pure Research
Tends to yield knowledge that proposes potential methods, processes or theories to resolve conceptual/undefined problems†

Applied Research
Tends to yield solutions to problems that satisfy tangible, “real-world” parameters; can also yield focused problem-definitions††

Primary Research
Whoever is conducting it gathers data from direct contact with a group of people, an environment or a “real-world” situation
Secondary Research
Involves using existing research to support the initiation or maintenance of a given research endeavor

Tertiary Research
Used to summarize, synthesize and re-state existing research to support a specific initiative or intention
Whether the objective is innovative brand-building or the instigation of social, economic or political change, designers who can effectively utilize diverse critical thinking processes to inform research methods and practices put themselves in a much better position to ensure that the things they make meet real needs, requirements and constraints.

Another means to understand how using research has become essential to design practices that are becoming increasingly more interdisciplinary was recently described by David Canaan:

“[Designers who can effectively develop and then use research know how to]:

- motivate sales
- influence brand loyalty
- support commercial goals
- appeal to specific audiences.”
Designers who have not learned how to design research tend not to know how research tools can be used throughout the design process to analyze and synthesize ideas. They also tend not to know how to map the research results of others onto their own practices.

This results in designers who have difficulty:

- Effectively collaborating with professionals from the realms of business, the social sciences, information and decision sciences, the humanities, economics…

- Building empathy for people who don’t share their particular points of view

- Understanding how given value systems motivate specific groups to learn, emote, and to take action
Overcoming Barriers to Interdisciplinary Research

Over the last four or five years, more journal articles and blogs than I can cite here have addressed the transmogrification of the design studio to the design consultancy. These organizations are often comprised of collaborative teams of individuals who have backgrounds in areas such as information technology and decision sciences, anthropology, sociology, cognitive and behavioral psychology, financial planning, marketing, management and design (to name but a few…).

Overcoming the perception that engaging in research will somehow limit or inhibit their creative ability;

These difficulties limit opportunities to

- contribute to the ongoing, increasingly eclectic discourse that is expanding the definition of what it means to practice design in non-studio setting;

- create work that discourages the perception that most of life’s problems can be solved by consuming the right commodities rather than by participating in community groups, civic organizations and electoral processes;

- forge working partnerships with professionals outside design who understand how to use research processes and how to deploy research tools in ways that we don’t
When the design of a visual communications system is guided by well-framed, well-managed research methods, designers are challenged to think beyond “how will I make it?” and “how will I disseminate it?” This yields a much more eclectically informed array of questions for designers and their collaborators to attempt to resolve with whatever their working processes deliver:

- What is right to do?
- How should I do it?
- What will happen to it after it has been made?
- How will it affect and be affected by the means used to make and distribute it?
How will the means used to make and distribute it affect how it is perceived?

How will the social and cultural biases of its users or audiences affect how it will be perceived?

Design problem-solving informed by research methods that yield insights regarding why particular groups of people want what they want leads to the creation of artifacts, systems and communities that reflect values, satisfy aspirations, and efficiently serve and even enlighten their users.

Approaching the design process in this manner transcends the narrow confines of style and form. This is important to remember because most of the people in the world who haven’t been to design school do not equate our ability to “make stuff look cool” with a high degree of intelligence.  

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Socrates once said that intelligence (in a group or an individual) ought to be equated with the ability to discern the truth. In his book *Amusing Ourselves to Death* (©1985 Penguin Books: NY, USA), Neil Postman has taken Socrates a step further by suggesting that the ability to use the discernment of truth to effectively guide action is a much more revealing measure of intelligence.
At the commencement of both the undergraduate and master’s levels of study in communication design at UNT, research methodologies are presented as a means to address both the analytical and practical challenges that confront designers. Students are encouraged to approach designing as a process of inquiry that must yield more than “a solution to a problem,” or “the rendering of a more preferable state from a less preferable one.”

This process of inquiry can and often does result in the creation of a prototype or a comp, but it can also result in further questions or debate. It can also identify an opportunity to reach “outside design” to partner with people who possess expertise they do not to create new knowledge contingent “not with how things are but with how they might be.”

It places design students in learning situations with people who define and use research differently than designers do.
Similarities

- Design research can be used to measure material performance and to evaluate data sets and statistics.

- Design research can be structured to test some hypotheses through investigation and experimentation.

- Design research can be conducted to increase the etiological understanding of a variety of social, technological, environmental and political issues.

- The distinctions between pure and applied research are becoming as blurred and intermixed in design as they are in many other disciplines.
Understanding how to engage in and utilize primary, secondary and tertiary research is as important to design students as it is to students enrolled in the sciences, the humanities or education.

Understanding how to engage in and utilize a variety of research methods (i.e., ethnography, experimentation, simulation, action research, analytical research, etc.) in pure and applied research endeavors is as important to design students as it is to their academic peers.

**Differences**

- Design research usually doesn’t yield results that can be duplicated exactly by other researchers somewhere else.

- It is difficult to measure the outcomes of design research initiatives and projects using quantitative standards.
Unlike many forms of research practiced outside its ever-expanding realm, design research has the potential to resonate with a particular public or a market due to its sensitivity to cultural context(s) and cultural moment(s).7

Many design research methods are not predicated on years and years of development and testing (as is the case with many other university research staples); as a result, we’ve appropriated a great deal of terminology and practices from other disciplines. Introducing these practices and this terminology occurs early in both the undergraduate and graduate communication design curriculums at UNT. These issues are contextualized in courses that introduce students to design history, theory and criticism by challenging them to engage in selected forms of investigative analysis supported by critical writing. Writing is a huge part of everything that we teach in communication design at UNT.

7 from Peter Lunenfeld’s article The Design Cluster, published in Design Research: Methods and Perspectives by Brenda Laurel, ©2003, MIT Press; Cambridge, MA, USA.
University professionals who haven’t been to design school who pursue research agendas tend to know how to

“Troll” for Requests for Proposals (RFPs) and Requests for Applications (RFAs), or they know how to locate and work with the people on their campuses who can troll on their behalves—design students need to learn how to do this if they hope to pursue careers that involve securing the funding necessary to pursue interdisciplinary research

Write, co-write and service grants—at UNT, graduate students in communication design are challenged to “mock-answer-and-submit” selected RFPs and RFAs, and, in some cases, to assist faculty who are working on interdisciplinary teams to do so

Assemble, sustain, and meaningfully contribute to interdisciplinary teams striving to achieve a common goal
Most university professionals who haven’t been to design school who pursue research agendas tend to have accrued working knowledge about

- The differences inherent between attaining knowledge of something and knowledge in something
- The importance of framing specific research endeavors within particular approaches to building knowledge (here are a few examples—)
  - ontological
  - hermeneutic
  - taxonomic
  - heuristic
  - qualitative
  - ethnographic
  - iterative
  - dialectic
how not to engage in assumptive research (most of them learn this early in their undergraduate experiences—)

· they don’t assume that a given target user group will use their prototype/interface/process the way they intended it to be used

· they don’t assume they already know what their audience/user group needs and wants

· they don’t assume that their vision for the outcome of a project will be realized, nor do they attempt to manipulate the process to ensure this result

· they understand the flawed logic in testing a model before they’ve attempted to understand what informs the value systems/core motivations of their audience/user group
Most university professionals who haven’t been to design school who pursue research agendas do have working knowledge of the following terms, but they may not use them the way we do. Sharing our understanding and experiential knowledge of these with professionals working in other disciplines begins to allow us to develop the components of a common language. These terms also need to inform the working knowledge of undergraduate and graduate design students. In UNT’s revised communication design curriculums, they’re introduced in historical, critical, theoretical and practical contexts.

- semiotics  
- rhetoric  
- gestalt  
- denotation

- methodologies  
- discourse  
- analysis  
- connotation

- methods  
- dialectics  
- synthesis  
- typology

- zeitgeist  
- semantics  
- proposition  
- intentionality

10 We’ve appropriated all of these terms from other disciplines and imbued some of them with altered or new meanings that suit our particular needs and (hopefully) improve our discourse. What we’ve done with language derived largely from the sciences and the humanities is akin to what the Israeli Air Force has done over the last 30 years or so with American aerospace technology.
Designers who wish to collaborate on interdisciplinary research projects as their careers progress must learn to utilize different critical methods to assess the multivariate effects (and affects) of research processes, methodologies and deliverables. Teaching communication design students at UNT to use these methods to critically assess research outcomes provides them another means to disseminate whatever knowledge was gained, and to provide them with a means to “overcome the failure of design to occupy a place in the minds of other disciplines.”

- empirical criticism
- genealogical criticism
- metaphorical criticism
- zeitgeist criticism
- ethical criticism

Graduate and upper-level undergraduate students learn to apply these critical methods to written analyses of designed artifacts, processes, theoretical approaches as part of their coursework.
UNT’s Proposed Master of Arts in Design Literacy, or Visual Literacy, or Applied Visual Literacy…

Beginning in either the fall of 2008 or 2009, the communication design program will commence its participation in a program designed to immerse master’s level students from a variety of disciplines in collaborative learning situations. Two of the primary goals of this 36-credit-hour initiative are:

- to challenge students at professional levels of study to work in interdisciplinary teams to engage in design thinking as a means to identify and solve pure and applied research problems
- to critically examine what it means to be literate in a world that is continuously being re-shaped by images, media and visual communications

It is our hope-cum-expectation that these students will enter this program having earned undergraduate degrees and having accrued professional experience in areas such as marketing, information technology, decision sciences, sociology, anthropology, behavior analysis, economics, and RTVF, among others.
“Typography is not the be all and end all. It is not the secret to the mystery of life. It will not save the starving and poor… No one ever died from a bit of bad kerning or over-zealous leading. It’s. Just. Type.”

Paying careful attention to the interdependent relationship between typesize, leading and column width throughout a document doesn’t broaden the scope of a given scientific inquiry. Nor does it inform, contextualize or catalyze a procedure or a methodology. In no way can it be defined as primary, secondary or tertiary research. It will not help assess whether or not the outcome of a specific endeavor satisfied a stated intention. It will not contribute to the kind of social, political, technological or environmental problem-solving that is necessary to help reverse global warming, close the ever-widening gap between disparate class groups, improve the efficacy of children’s learning experiences or get as many Americans to vote for president as they do for American Idol.