WHAT HAVE WE LEARNED FROM COMMUNICATION DESIGN FAILURE?

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ABSTRACT

In closing, the guest editors of this *Visible Language* special series reflect on the failures identified in the various papers and interpret what this suggests for design education and research in the context of changing practice. The failures cited in this series point out the fractures in our understanding and practices from user-centered, digital, process-oriented, cultural, ethical and even safety-oriented perspectives. Three common themes are explored as context: theory, ethics and process. The need to update design education and identify research needs are discussed based on what the papers in this series suggest.

Fractures in our understanding and practice of communication design are evident in the "Communication Design Failure" series. Before discussing what these faults might suggest to design education or research, it is worthwhile to take a moment for an overview of the papers, to identify their common characteristics because the three themes that emerge signal a shift in attention. Such reflection helps us to better learn from failure.

IDENTIFYING COMMON THEMES

• *Theory*

Five authors anchored their discussion with theory that structured their critical approach to failure *(see table 1).* The theories ranged from a detailed analytic use of visual rhetoric (van der Waarde) to an examination of semiotics and semiology along with individual interpretations and applications (Storkerson). Diffusion theory (Lee) and an anthropological approach to communication theory (Singer) took another perspective on meaning in design, while critical realism grounded a more extensive look at stakeholders (Doherty). Theory is often dismissed as inconsequential in design, yet here theory is explored and used purposefully.

Table 1 Theme analysis of papers in the
Communication Design Failures journal series

Author	Process theme	Theory theme	Ethics theme
Barnes et al.	• Decision-making • Stakeholders		
Brown	• Prototyping		
Doherty	• Stakeholders	• Critical realism	
Lee		• Diffusion theory	• Information authenticity
McDonald	• Stakeholders • Systems		
Roesler	• Systems • Decision-making		• Safety
Singer		• Communication theory	• Safety
Storkerson		• Semiotics	
van der Waarde	• Decision-making • Stakeholders	• Visual rhetoric	
Winkler	• Design education		
Yee	• Risk management		

• *Ethics*

Ethical failures were cited in terms of information authenticity (Lee) and in terms of safety located in the realm of information confusion based on overload and lack of integration (Roesler) or based on confusing form (Singer). Designers do not often consider the harm information can inflict. The examples of failure raise the question of truth telling. Whether it is an intentionally misleading form in the case of Singer's ambulance/mailbox for example, or a careless rendering of history in the case of Lee's Ibn Battuta Mall, the question is what responsibility the designer has relative to the character of the content and form presented to a public. In the case of Three Mile Island control panels (Roesler), process shortcomings, while typical of the time, led to near disaster.

As abundant information is more easily distributed and accessible to the public, two approaches to information ethics are apparent: "let the recipient beware" places responsibility on the user of information to determine its truthfulness, the other is to hold those who produce it responsible for accurate and clear information. Neither approach by itself will solve the ethically rooted quality problem. For example, the proliferation and persistence of 'urban legends' are a clear demonstration of the scope of misinformation and the inability to eliminate it.

• *Process*

All of the contributors to the Failure series discussed a changing design process from various points of view including in particular: stakeholders, decision-making and systems. Recognition of more complex relationships among stakeholders and how to manage their requirements, desires, conflicting needs and priorities was dealt with directly (Doherty, van der Waarde, McDonald) or indirectly (Barnes et al.). Managing expectations and results from various stakeholder perspectives is a result of a broader understanding of design process and who the process and result impacts and serves. These can be delicate and politically charged relationships that directly alter the design result.

Closely related to this is the issue of decision-making. In the past designers have understood their role to be that of artist/creator, with significant decision-making power if they had a good relationship with their client, or conversely they understood their role as handmaiden to their client's decisions. With a more complex array of stakeholders, with or without a collaborative team, decision-making becomes something to argue and negotiate based on knowledge and information. Designers have yet to step up to this change in process.

Systems, by their nature, require a dynamic and integrated approach. Complex systems require a collaborative team with different knowledge and points of view. The signage investigation (McDonald) shows how static or generic most signage is; it uncovers the workarounds, aesthetic messiness and confusion that results from a lack of systems thinking that anticipates the many contingencies that require changeability. In contrast, a complex technological energy plant (Roesler) demonstrates that holistic thinking is essential, seeing the entire possible pattern of events, working through the links in a system not only based on their probabilities of occurring, but playing the devil's advocate, working through the sequential strategies needed to make things right when they go wrong.

Other process issues include the nature of prototyping, when, why and how it is used—its' character and its' flaws (Brown). Reflective design process in terms of risk management (Yee et al.) shows that anticipating problem areas in a project can smooth out the process and possibly produce a better result. Because design exists in a context of complexity, uncertainty, instability, uniqueness and value conflict (Schön. 1983), risk is always present. Risk avoidance is virtually impossible, so it is better to face it. Finally, design education is stagnant (Winkler) and fails to address the changing context of design whether from the standpoint of theory, ethics or process.

The nature of the contributions in terms of Theory, Ethics and Process flags the continuing interest in improving design process, again we note their lack of emphasis in design education. Our discussion emphasizes theory as practical—to provide possible new analytical and/or generative tools for design. Ethics gets into the character of what designers are asked to create and their need to take a larger view of what they create and its social context of use and impact. Design has never embraced one accepted process; a more inclusive process that addresses the dynamic nature of our time is needed. These three themes indicate that much design education is out of step with advanced practice and the situations in which we work.

Symbolic gadgetry (whether hardware, software or their symbiosis) has become more powerful than the purpose for which the gadget was designed or the quality of the culture that is shaped or supported by it. A metaphor for information technology in relationship to useful and applicable information comes to mind: today, it is like driving a Lamborghini, capable of speeds beyond 200 miles on undeveloped roads with potholes that barely allow speeds greater than 25 miles per hour, making the sleek car in the public sector not more useful than an old lawnmower.

There is a great disparity between technology and the democratic needs for information. Turnovers between phases of technology have become so extraordinarily sped up, that when some users are still at the initial step of discovering process and function, others have already progressed to the next stage in this process of rapid style, feature-oriented and profit driven obsolescence. The time required to keep abreast is robbing users, and in this case also designers, from deeper and better understanding of human relationships, human communication and consideration of cultural goals. The focus is on cheap entertainment with technology as a preferred end-all goal. What about meaningful and helpful guidance through the perplexing complexity of information?

Digital communication technology is not about itself—not about its style, sleekness or its heavily layered capabilities or flexibilities. It is in service of socially empowering exchange of useful cultural information between human institutions and citizens in a variety of democratic configurations, activating commonly agreed upon conventions, developed over many centuries for the use of language, signs and etiquette.

The not culturally but corporately induced production of gadgetry is pressing an already mostly useless information-overload to extremes. Do marketers, corporate executives and their designers ever sit down beforehand to measure the projected change of newly introduced technologies in relationship to their impact on culture and society? For example, will the 140-character limit of message-length of a much-touted social network-blogging process trivialize the message or confuse the recipient? Is hindsight the only way to cope with the evolutionary results? Does it mean that if one is critical of technology, that one is simultaneously anti-progress, or that if one wants to slow down the process to investigate and consider social impact, that one is old-fashioned and conservative? Do designers see themselves as helpless participants that must endorse every new design disregarding its impact on the culture? What are the designer's measures for efficiency, expediency or loss of detail, depth and convention in relationship to their ultimate responsibilities to society and culture?

This aggressively dynamic process, on one hand is linked to further emancipation of the human race, but on the other is creating a cultural superficiality in which having 'googled' and surfed some sites stands in for having synthesized and prioritized information from the different disciplines to support and improve the culture. Designers need to develop a functioning ethics and aesthetics of communication. They need it badly as an ideal with which to address their involvement in all social and cultural issues. They are not just the hands of corporate management. They are facilitators of culture.

UPDATING DESIGN EDUCATION

Now that the plethora of two-year and four-year schools offer graphic design, visual design and even communication design courses of variable character, which are copied by certificate and workshop-schools like Gibbs Schools (Career Focused Learning) or ITT Technical Institutes (Education for the Future) and listed among subjects like bartending, hair design, nail and skin care, massage therapy, law enforcement, automotive repair and culinary arts, it is time for universities to drop the pretense of delivering professional design education and switch from concentrations on vocational/technical training to constructing the intellectual, cognitive and theoretical base from which a design discipline has a chance to evolve. Universities can no longer milk the cash cow of bourgeoning enrollments in baccalaureate design programs to fund other activities. They must begin to intellectually pump-prime the long neglected graduate preparation for advanced communication design levels required by a disciplinary and professional world.

Having failed to build a design profession on the basis of introductory and survey-course sequences as in the liberal arts (psychology, sociology, anthropology, literature, etc.), and having neglected graduate design education for much too long, the spectrum of needs for shaping a design discipline is vast. It is going to be extremely difficult for stand-alone art/design schools to fill the increasing professional demands. Only at institutions with larger arrays of disciplines will it be possible to have access to intellectual components outside the traditionally accredited design programs.

Some designers' responsibilities stay separate and become specialized; others overlap in relationship to the studio's sophistication and size or project-demands generated by clients. Design programs vary widely in quality and depth, but all stay academically undernourished. They are in need of serious and critical academic review, and many of them should be restructured, upgraded or abolished.

Most design-career responsibilities fall into the following areas.

• *The application of principles of visual literacy and aesthetics to form-making and formatting in letterform, type and image communication environments*

This is the 'ground zero' level, borne in and encapsulating the traditions. It represents only a fraction of the responsibilities of contemporary designers. It concentrates on the continuous upkeep of the assortment of aesthetic and studio-related technical skills. While this competency is the only distinction from other types of authoring, concept-shaping and narrative disciplines, it has never been developed to very high intellectual levels. In fact, it has been trivialized in over simplification of complex information.

The only timeless activity seems to continue in information design. It requires designers to step away from beautification, styling and visual entertainment and concentrate responsibly on making information intelligible, to facilitate the user/public's access to information, that because of complexity or novelty may be easily misinterpreted, or because of social and cultural factors is difficult to comprehend. While information design seems to be the most solid platform in communication design, the new task of interaction design must venture out further and leave the two-dimensional desktop behind and begin to cope with the available digital, time-based power to construct information driven dynamic narratives and diagrams.

Across the board, in vocational as well as academic programs for the past two decades, the emphasis has been predominantly on coping with the reality of emerging digital technologies, thereby arresting all other studio skills at a point located in several decades ago, allowing only shifts from one style agenda to another. Even though digital efficiency promised more time for in-depth information searches, responsible concept development or metaphorical experimentation to increase the field with richer and more sensitive icon analogies or image allegories—this was not realized. Lip service has been given to advancement and sophistication of visual metaphors, but a perusal of the professional media proves that more invention is dedicated to style rather than metaphor development.

• *Theories in the communication sciences*

Even though most design programs are accredited, one surprising fact jumps out from investigating design program catalogues from even name schools and universities, there are few or no requirements in theoretical communication subjects, especially those theories that expose the complexity of human interactions, thought and values, filtered through psychology, social and cultural anthropology or philosophy, with the latter beginning to construct frames for human values and interpretations of logics. Topics like Network Theory, Analysis and Attribution Theory, Attraction-Selection-Attrition Frameworks, Classical Rhetoric (Narrative Construction, Information Theory, Agenda-Setting and Argumentation Theory, Structured Value Determination Theory, Minimalist/Pluralist Mental Communication Models, Meaning Management, Discourse Theories, Text and Psycho-Linguistic Theory, Social Cognitive Theory including Social Cues, Group and Individual Social Identity, Theory of Planned Behavior/ Reasoned Action, Language Expectancy Theory and other valuable subjects that support and deepen communication performance remain ignored.

• *Applied research: human factors in communication*

It is interesting to see concepts of 'sustainable design' or 'green design' emerge in course descriptions, they will stay most likely as meaningless slogans, unless programs bring to bear the deep understanding of physical and emotional human factors, which drive visual and verbal—and all aspects of social and cultural communication. 'Sustainable design' cannot be experienced as theory. It must be tested through many social and cultural filters guided by interdisciplinary knowledge and verified and refined through applied research and testing. At the center of all human endeavors stands communication. It is where all interdisciplinary knowledge comes together to construct models of human environmental complexity of which visual communication is just one minor slice. The area of applied research remains mostly neglected.

• *Management of business, studio, project and client relationships*

Very few design programs offer courses for establishing management skills for leading a design studio, selecting, fostering personnel and evolving creative teams. Such leadership is similar to a combination of teaching, coaching and facilitating. For too long the field of practice has relied on designers to emerge unaided as team members, leaders and design managers without design schools providing knowledge

of business frameworks and strategies (self-marketing, public relations, venture strategies, competitive strategies, marketing strategies and tactics), systematic business planning or understanding of decision sciences.

IDENTIFYING RESEARCH NEEDS

• *Time*
While communication design has focused on spatial organization, internal relationships and pacing, once designed it has been static, subject to review and updating, but with a subsequent static result. Information today is dynamic; today's audience is impatient and understands the changeability of situations. Further, they know that poorly organized information robs them of time and increases frustration. Information architectures, information compression, searching, synthesizing or comparing data, understanding the context of use and developing systems approaches to changeable information—these and other time-related topics are germane investigations for research.

• *Design research methods*
There are many legitimate ways to do research. The first step to understanding the range of possibilities is for someone to analyze the evidentiary basis needed. For example, substantial research is needed to provide a foundation for subsequent work, thus casual, suggestive results will be inadequate. Other research studies may be at the other end of the spectrum—suggestive or preliminary to support product development or prove a research process is useful. Of course, there are many positions between these extremes with particular research methods more suitable not only in relation to the research question being asked, but also in relation to the evidentiary need and the practicalities of what can be accomplished. The well-known and revised (1980) *Design Methods* (Jones, 1970) incompletely serves design with its changing disciplinary and interdisciplinary research context. A new compendium that addresses design research methods is needed.

• *Collaborative process*
Related to the understanding and application of research methods is the need for a better understanding of collaborative process across disciplines so that there is understanding and agreement about research process and findings. This can circumvent argument about legitimacy and aid in negotiating decisions. Collaborative work is the future of design. Much can be learned about process from collaborative efforts in healthcare and business. A practical approach to building such a process is through case studies from which best practices might be extracted.

• *New approaches to research reporting*
Designers largely ignore research reports because they are in a formal language directed to researchers; they seem dry and overly complex, fail to address the designer's practical problem and require substantial interpretation to use—if at all. How might we extract the important findings (keeping the process behind the scenes, but available to those who might have interest)? Demonstration of research in practical use is also important. In this case, the demonstration can validate the research to some extent, or may suggest needed new approaches to the research question. A fluid relationship between design research and practice needs to be developed.

• *Learning*
As pointed out earlier, design education is lagging behind the changes that are reshaping our information and communication lives. New curriculum is needed, but it is not just the writing of objectives or developing a syllabus. New strategies for delivering learning, putting it to use and synthesizing it into design experience is called for. And it is not just trying it out once, but thoroughly testing its efficacy and adapting it for better learning performance. Design traditions cannot be saved whole cloth—they must be amended and amplified based on the changed context of performance.

CONCLUSION

The Communication Design Failures series demonstrates the ability to ramp-up understanding and performance based on an analysis of what goes wrong in process or design result. This requires an ongoing egoless look at history and results in order to actually learn from failure. The failures are instrumental; they point to needed change. This is work that only designers can accomplish as design is such a ubiquitous but under-appreciated undertaking; others in other disciplines lack the interest or understanding for such work.

The authors in this series have a reflective turn of mind; they are not just "doing" design, they are thinking deeply and critically about design performance, the changing context and expectations they encounter and the future of design. People often consider the relationship between academia and practice to be a chicken-egg paradox—who leads and who follows. This simplistic analogy is not appropriate. Changing requirements and possibilities travel in both directions, from more substantial academic training to professional work, and from emerging, more sophisticated practice (complex problems, interdisciplinary collaboration, digital evolution, etc.) back to academia and the need for continuous learning. Failures signal opportunities for change whether from an academic or professional perspective.

REFERENCES

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AUTHOR NOTE

Sharon Poggenpohl is editor and publisher of this journal. With over twenty years experience in graduate design education at notable schools and universities, she now is focusing on writing. With a colleague, she has recently published an edited collection of international papers on present and future design initiatives, *Design Integrations: Research and Collaboration* (Intellect Books, 2009).

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