

QUARTERLY OF THE INDUSTRIAL DESIGNERS SOCIETY OF AMERICA **WINTER 2012**

INNOVATION

Designing Understanding

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QUARTERLY OF THE INDUSTRIAL DESIGNERS SOCIETY OF AMERICA

WINTER 2012

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FROM THE EDITOR

THE MAGIC OF UNDERSTANDING

Augie Picozza, the current director of design at Jarden, told me a story once. A number of years ago when he was heading design at Tupperware he was given an assignment to create a container for an emerging group: younger Japanese women in the work force, a new phenomena then. He thought of miso soup. Everyone loves miso soup. But after having the idea of creating a container for it, he researched it. Sure enough, according to the research, it turned out that working women in Japan never took miso soup for lunch. Disappointed, Augie was forced to cancel the project and soldier on. By great good fortune, shortly thereafter, he found himself sitting at a table of professional Japanese women at a conference. He asked this impromptu research group if it was true that they never took miso soup for lunch. "Why yes," one of them replied. "It is." He thought for a minute and then asked, "Why?" "Well," she replied, "we don't have anything to carry it in."

In design there exists a fine line between instinct and data, between smart contemplation and bold imagination, between the science of well-conducted research and the presentation of that data that informs and enables original ideas. Magic can occur with true understanding and interpretation.

In this issue of *Innovation*, we are exposed to a great deal of understanding about the discipline of research, the research expert and the designer's role in both conducting and interpreting data. Research is sometimes defined as a careful or diligent search, a studious inquiry or examination. It informs and makes clear needs and unspoken needs. Investigation or experimentation aimed at the discovery and interpretation of facts sets the table for design, sheds a bright light on false assumptions, confirms instincts and provides for the revision of accepted theories or laws in the light of new facts or the practical application of such new or revised theories or laws.

Research, it can be argued, is a science. Design is clear-

ly guilty of adulterating research to suit its own purpose, but that is not necessarily wrong or a bad thing, depending on how deep one needs to go.

This issue of *Innovation* is guest edited by Stephen Wilcox, FIDSA, principal of Design Science and a prominent expert in many different kinds of research. I have had the distinct pleasure of knowing Steve as a colleague and friend for many years. A research pioneer in his own right, Steve brought true discipline and insightful research practice into the practice of industrial design through his background as a social scientist and curious intellect. He has collected an important and distinguished lineup of research experts and design thinkers. They offer many different interpretations and ask many thoughtful questions about the nature of true research understanding.

For example, another simple way of defining research is the collecting of information about a particular subject. But let's say that information relates to something unusual—a butterfly that is both black and white perhaps. The more complex question that Steve asks is, who is the right person to collect and interpret that information and what is the right technique? As illustrated in the story we began this article with, it is usually up to the insight of an individual, in this case Augie, and usually requires clever interpretation of data. But is that the purview of the researcher or the designer or both? Steve suggests that "today's designer really needs two research-related skill sets that yesterday's designer didn't need: the skill of doing research and the skill of working with researchers who are not designers. I fear that sometimes the former can get in the way of the latter." An interesting notion to ponder indeed.

It is with deep gratitude and appreciation to Steve and all of the authors he has assembled here that we present this issue of *Innovation*. We hope you enjoy this peek into the field we call Designing Understanding.

—Mark Dziarski, FIDSA, *Innovation* executive editor
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DESIGN RESEARCH HAS

I appreciate the opportunity to put something together on the topic of design research. I've been at it for awhile. In 1984 when teaching psychology at Franklin and Marshall, a small college in Pennsylvania, I came up with what everybody I knew thought was a lunatic idea: to work in industrial design. I faced a few minor barriers, though: I had no background whatsoever in design, I knew virtually nothing about it, and the only jobs I'd ever had were either teaching psychology or doing construction work (which I used to get through college). However, it seemed to me that a psychologist could find something useful to do in the world of industrial design given that products are used by humans. I figured, for example, that there was probably a need for technical information about the intended users of products that could lead to better design. That seemed logical, anyway.

It was at least logical enough (in combination with my willingness to work cheap) to get a job at HLB (may it rest in peace). Once at HLB, I discovered that not only were designers failing to avail themselves of information that was potentially relevant to what they were working on, but that they didn't even know how to do the simplest research regarding potential product users. Thus, there was certainly an unmet need. However, although I had the research skills and the knowledge base, I didn't have any idea about how to provide information in a form that designers could actually use. That I had to learn, with a lot of help from a lot of very generous and patient designers. I hate to think of the first reports I produced. The problem with academics, you see, at least in psychology, is that they're trained to create documents that can only be read by the two or three other people in the world who are working on the same things they are.

Well, here I am coming on 30 years later, and I'm still struggling with the same two problems: how to acquire relevant information about the people who use products and how to present that information so designers can use it effectively.

That's what this issue is about.

I've gathered up a few people I admire and asked them to provide some pearls of wisdom on this topic of research to support design. They fall into two groups: Americans and Brits.

The Americans—Charles Mauro, IDSA, Dan Formosa, Michael McCoy, IDSA and Michael Wiklund—I've known and learned from for many years. They all have played major roles in determining how research fits into industrial design, and all have produced an impressive body of design and research work. Back in the '80s, as I started learning more about design, I began to find other oddballs like myself who were doing design research. They included a couple of other Ph.D. psychologists who, I found, predated me (damn!): Ron Sears, IDSA and Liz Sanders, both of whom began their careers in design at Richardson Smith. They also included the four Americans who've contributed to this issue and who represent three different approaches to design research: starting with a research background and figuring out how to work with designers (Wiklund), starting



By **Stephen B. Wilcox, FIDSA**

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COME A LONG WAY

with a design background and getting additional education in research (Formosa and Mauro), and starting with a design background and developing and acquiring research methods from a design point of view (McCoy). I think it's fair to call all four of them gurus; I hope they don't mind.

In the meantime, I've been following some really exciting advances going on in the UK that don't seem to be on the radar screen of the US design community. The UK is turning out a lot more designers per capita than we are in the US. It may be that the density of designers requires them to be more creative about what design applies to, causing design to become infused into more areas. Or maybe our British colleagues are just a little more willing to try something new. The breadth of the problems being tackled by industrial designers in the UK is striking. Thinking this would be a good opportunity to showcase some of that work, I asked a group of especially interesting folks from the UK to describe the work they're doing: Jeremy Myerson, Alastair Macdonald, Graham Pullin and David Bramston, I/IDSA. All of them, it turns out, have academic affiliations, which wasn't intentional, and all have been doing very creative work and written prolifically about it.

As the various articles in this issue indicate, design research has come a long way. When I arrived on the scene, just about everybody identified conceptual design as the first phase of design. Now just about everybody identifies research as the first phase of design. So lots of design research is being done, and our methods continue to get better.

I want to close, though, by mentioning one thing that I think continues to be a source of difficulty. Today's designer really needs two research-related skill sets that yesterday's designer didn't need: the skill of doing research and the skill of working with researchers who are not designers. I fear that sometimes the former can get in the way of the latter. The difficulty is in figuring out which kind of research the designer should do and which kind of research the designer should expect a research partner to do. Where

the designer gets into trouble is in overestimating the role that the designer's own research can play. Those of us with scientific backgrounds learn rigorous methods for squeezing out the error from our research. It requires such rigor—born of a skeptical stance toward information—for research to be used to drive corporate decision making (as opposed to generating ideas, informing the design, etc.), particularly when the people who run corporations tend to have quantitative backgrounds of one sort or another. This isn't just a matter of quantitative research versus qualitative research, a market-research distinction that doesn't really apply, in my opinion, to design research; it's a matter of scientific rigor, a rigor that requires scientific training to achieve.

Thus, to learn to do research with real scientific rigor, the designer really has to become a scientist as well as a designer. But I don't think it makes sense to try to make designers into scientists (with the exception of some unusual people who can become both) because the skepticism required of scientists probably isn't a good thing for maintaining the creativity and innovation of design.

The fact is, though, that some designers, like other people, suffer from the human affliction of thinking that what they do is really hard and what everybody else does is pretty easy, and, therefore, get into trouble from an inappropriate application of the I-can-do-that attitude. Don't get me wrong; I'm a strong advocate of designers doing research. My point is that there's also design research that requires people with true scientific training. I'll also add, in the spirit of fairness, that researchers are probably worse than designers vis-à-vis the I-can-do-that syndrome, particularly when it comes to presenting information. (Can't everyone see the patterns in tables of numbers?) While I certainly think there's a need for dedicated researchers in design, there's just as much need for design in research as there is for research in design.

I hope that this issue provides a productive addition to this ongoing discussion of design research—where it's been, where it's headed and how we ought to do it. ■



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