INNOVATION

Designing Understanding

EMOTION ▪ BRANDS ▪ EDUCATION

INNOVATION ®

"Abra-CAD-abra"

zSpace designed by Whipsaw for InfiniteZ; www.zspace.com

DESIGNING UNDERSTANDING

FEATURES

IN EVERY ISSUE

PATRONS OF INDUSTRIAL DESIGN EXCELLENCE

By Dan Formosa

dan@danformosa.com ■ Twitter: @danformosa

Dan Formosa's work covers many areas of design. In 1980 he helped establish Smart Design to explore ways design can positively affect peoples lives. He frequently lectures on design. He also helped create the new master's in branding program at the School of Visual Arts in New York City.

Design and Understanding

MY RELATIONSHIP WITH KAREN

The great thing about Karen is that she totally understands me. We're in year three and at this point I know her pretty well—maybe even better than I should. She's an actress, Australian and blonde, has a consistently pleasant disposition, is almost always helpful and is extremely forgiving. Let's say, for instance, we're driving to some previously unexplored weekend destination. On the way I impulsively feel like taking what I think may be a more scenic route. Instead of following her predetermined plan, I pull off onto a different exit ramp. No problem—she politely tells me she's *recalculating*.

My relationship with Karen ($150) is stronger than my relationship with my Audi ($35,000). And while the Audi is running just fine (A3 diesel with great mileage), Karen and I seem to have a stronger and more personal bond. Compared to the car, it's more of a true relationship, a sort of interdependence—borne out by the fact that if renting a car when traveling I'll miss Karen more than my Audi. (Note: I often take her along.)

Which makes me think that this is a pretty good time to be in design because in so many cases the design of the physical item doesn't matter. While the "thing" may be important, it may not supply the critical edge that defines good design. **Good design is more about how well a product or service fits into our lives and helps us along the way.** And for many products, usability differences often trump physical differences—because physical or technical differences between various brands can be so slight that they become insignificant. So it's not that physical traits don't matter; it's that products coming from different manufacturers are at parity in terms of their physical attributes. And technical performance is assumed at the time of purchase. We're looking for more than that. From simple everyday housewares to high-tech electronics and health care, we're into meaningful relationships. And those relationships may or may not be physical.

We're not buying products by brand name like we used to, or simply by outward appearance or estimation of performance. We're buying products based on the promise of happy relationships. And we're doing this now because we can. We turn to blogs, Amazon reviews, discussion groups, personal references, cable stations, YouTube reviews and many other instantly available sources that freely offer relationship advice. A strong brand name means little in the face of negative Amazon reviews. (And by the way, no matter how many positive reviews a product receives, we all read the negative ones. Apparently when it comes to relationships, we're drawn to the tabloids.)

Consider What's Meaningful
For many of us, a great camera is defined more by its interface than its technical performance. For the most part, the technical differences between brands are not very meaningful. But if the settings we need to make take a half-second longer, we've missed the shot, which means an unkind one-star review on Amazon for all to read.

Even more obvious, operating-system preferences for mobile phones can far outweigh the physical devices. The 3D design differences between the many flat full-screen touch-panel devices we can carry in our pocket mean much less than the operating systems they run. We likely wouldn't abandon our system simply based on physical design, because the physical devices are more or less the same.

What happens when this phenomenon takes place with larger items, like cars? Will we actually base our next car purchase not on the physical car but on its operating system? This isn't a new phenomenon. BMW's iDrive system (the center-console LCD screen system that controls vari-

ous interior functions) was introduced more than a decade ago—and was impossible to use. While the car itself was fine, there was a failure to communicate. The operating system put a noticeable dent in the car-and-driver relationship, even with diehard BMW owners. What's new now is the emerging realization that these operating-system offerings are not simply nice to have and incidental to the product—they *are* the product. They can be the sole reason to purchase. Or in BMW's case, not to.

Future innovation in automobiles will, therefore, be less about how the car drives and more about how the driver drives. As technical innovations continue to be introduced, human behavior remains a less explored frontier. Car designers need to consider how the car behaves *and* how the driver behaves under varying conditions—with the driver arguably being the more difficult to predict.

This move from product to people creates a culture shock for companies whose pasts have been based on the physical object more than the person using it. The former approach focuses on the tangible product. The latter focuses on the less tangible aspects of people. And that shift of focus changes everything. The thing still matters, of course, but in almost every product category we have a choice of equally good alternatives coming from different manufacturers—brands we would be equally happy to own.

Think of what this means culturewise and consider the difficult task of changing corporate cultures. The Ford Motor Co., like many behemoth automobile manufacturers, is ramping up its expertise in interface design. Can a recently formed interaction group overtake a 100-year-old tradition in design and engineering? It needs to—its center-console Sync system has "iDrive-itis," usability issues negatively affecting Ford's reputation.

Looking even further, is a car company about the car or about transporting people? As the consumer model shifts from ownership to access, how does this affect the design of products and services and reveal new opportunities? Can our relationship with an automobile manufacturer be based on something beyond vehicle ownership?

Companies need to understand people better than ever before, and the entire design profession needs to explore new ways to do that.

Past Relationships

Usability in design dates back centuries. Museums are full of cleverly designed artifacts that go back thousands of years. (A classic ancient water jug, for example, is a thing of ergonomic beauty.) The field of usability, as it is more commonly thought of today, had its birth during World War II. As aircraft became faster and more complex to fly, more pilots were crashing. The Air Force responded by examining both the physical and cognitive demands on pilots. Thus, the emergence of the fields of ergonomics and applied psychology. The pilot and aircraft needed to communicate and form a close relationship.

Following these military applications, ergonomists and psychologists began applying their knowledge to commercial applications. Through the 1970s, however, for many designers "doing research" simply meant looking up anthropometric charts displaying the variations in the sizes of people. Handbooks on ergonomics also showed preferred orientations of dials and displays, typeface sizes and other examples of things that work with people—or at least worked with the military personnel for whom those recommendations were originally intended.

Less easy to find were guidelines on how designers could conduct this research themselves, an approach that could have advanced the field of design by several decades, providing designers with more pertinent knowledge to specific projects at hand. In rare cases experts in ergonomics or psychology were enlisted. More often design research simply wasn't done. Not a problem to many designers, who were taught in traditional methods of industrial design—the basis of which lies in understanding how to tame production machines and manufacturing processes. They tended to look more toward aesthetics than people-focused issues—maybe with some excuse, since many products (and usability issues) tended to be more simple back then.

Industrial design as a practice in the US dates back to the 1930s. In the 1950s something radical happened that dramatically affected design: television. More precisely, television advertising. For the first time companies were able to show and promote products across the US. With television, marketing products became more important than the products themselves. Design projects were driven by marketing needs—which was not necessarily the same thing as user needs. Advertising budgets became enormous, design budgets microscopic and design research budgets virtually nonexistent. The widespread practice of design research didn't emerge until the 1980s. (While there may have been notable examples in design prior to the 1980s, there were certainly not many.)

The fact that the field of marketing had a decades-long head start in creating methods in consumer research, combined with an adversity by many designers to any form of qualitative or quantitative research, stalled the advancement of research in design. It continues to do so today. Marketing groups still fund the majority of design projects, and their request for research conducted by design teams tends to, by nature, be focused on methods that most closely resemble marketing techniques, such as ethnography.

As it's commonly practiced in design and marketing, ethnography is not true "ethnography," a term borrowed from anthropology. An anthropologist will spend six months to several years conducting fieldwork in an ethnographic study, living among people to understand their culture and habits. In contrast, the term is currently used in design to describe activities like short in-home surveys or on-site question-and-answer interviews. In a true ethnographic study, the observer is a fly on the wall, observing but not interacting. Meaning, if you have a discussion guide, you're probably not conducting ethnographic research, just borrowing the term.

Even when done correctly, observational research covers just one of a wide range of topics. The full spectrum of what designers can offer, and what design research should cover, includes many additional aspects of the human experience. Opportunities abound in a more complete understanding of biomechanics, physiology, perception, emotion, behavior, cultural differences and gender differences. And while these other areas of design research are being addressed by some, there's not enough of that research being performed—and much of what is may be proprietary, therefore not sharable.

How can we get there? Universities are in a position to explore design in ways that are not constricted by commercial projects. There is very little wiggle room in real-world projects to explore topics like design and human behavior. Evolution is, therefore, happening slowly in the field. Meanwhile, expertise in fields outside of design isn't stagnant—experts in related areas are also realizing that their fields need to evolve rapidly, broadening their scope of knowledge and responsibility. Design will belong to whoever gets there first.

Love and Be Loved

Which brings us back to Karen—and why, for me, she gets my attention over Audi. Relationships are complex, not simple. **Make a list of all the traits you expect from a great product, brand or service and you'll find that a surprising number of those traits will be identical to the things you look for in a person.** Make a second list of all the things that make for a bad product, service or brand, and likewise, most will coincide with personal traits you would much rather avoid.

And that makes sense. Humans have not evolved over many thousands of years to be attracted to inanimate objects. Humans have evolved to instinctively be attracted to people: a mate, family, tribe or culture. Today we behave accordingly with the various entities that surround us, including products, services and brands. We are looking for relationships. Designers are in a perfect position to address this need, exploring meaningful aspects of the human experience totally unique to the field of design. Which, in a way, makes every person working in the field of design—anyone looking to create a successful product, service or brand—a relationship counselor. ■

+1,589 DAYS

A BEAUTIFUL LIFE

The Ignite experience. Helping people achieve their goals.

CREATIVITY THAT MAKES A DIFFERENCE | CALIFORNIA – CHICAGO – EUROPE – HONG KONG

LUNAR.COM