On Logic, Research, Design Synthesis...

Jon: A core theme of this issue of *interactions* has been the relationship between interaction design and education: how to teach it, how to learn it, and how to live it. As a designer, I'm obviously biased toward design education, as I see design as a core tenet of life, akin to reading and writing. Design has often been characterized as "dreaming" or "problem solving," both of which I consider underpinnings of human life. At the same time, I see the value in logic and pragmatism, and I'm often challenged professionally to "prove it" or "back it up with a sound, logical argument." Do you think future generations of professionals in the interaction world will have to walk the line between Art (emotion) and Science (logic), or will Design with a capital D finally have its time to shine?

Richard: Can design truly shine without addressing both emotion and logic? Was a need to walk the line between art and science responsible for all the messes described in the first section of this issue, or is the culprit better described as an improper balance?

Roger Martin, whom we referenced in our first *Interactions Cafe* discussion, has written about how the predominant thinking in business—analytical thinking—is hostile to design, and how that needs to change. But he doesn't argue that analytical thinking has no place.

Perhaps you can't "prove it." Perhaps you shouldn't be expected to "prove it." But is it wrong to expect to develop and use and provide rationale that can be subjected to some form of critique throughout and after the design process?

Is Tracy Fullerton wrong in teaching and emphasizing the importance of playtesting in her interactive entertainment program at the USC School of Cinematic Arts? Was Mark Baskinger wrong to observe the elderly and kids in his

inclusive design projects? Doesn't such research contribute to a kind of "logical argument" that is essential?

Jon: I wonder if the word "rationale" should even be part of the designer's language. A great deal of the abductive thinking Roger Martin describes is the "logic" of what might be. This isn't logic at all: I think Roger is smart enough to realize his audience won't respond well if he were to call it "the magic of what might be."

The research Fullerton describes, and Baskinger conducts, is absolutely worthless without some form of generative and interpretative synthesis, and this synthesis isn't logical. It's sometimes appropriate, or comprehensive, or rigorous, or even repeatable, but the notion of there being a "correctness" to design synthesis is far-fetched at best. This phase of synthesis is being publicly glossed over, as design firms pander to businesses looking to get ahead: "Do a little research, and—bam!—innovative products! Design thinking in action!" User research is wonderful, but it isn't Design thinking at all;

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Telecom Web has a major role to play: online presence, information, and commerce for everyone. For better impact, the two webs will have to leverage each other. It should become possible for the websites to be accessible from the Telecom Web, and the Voicemails to be accessible from the World Wide Web. Excuse me, I hear my Voicemails calling!

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it becomes thoughtful only when it stops being objective.

I've recently had a number of conversations with professional designers who are all, generally, coming to the same set of conclusions: User research is much, much less important than "worldly research," or "human research." Instead of researching for a specific project, they find more value in forcing themselves to constantly observe, consider, and question the everyday world around them.

Richard: In this issue Hugh Dubberly and colleagues argue for creating explicit models so as to not gloss over the synthesis you reference. And I agree that such synthesis too often gets short shrift.

However, I don't reject the value of applying some form of the concept of "correctness" to such synthesis, in consideration of its goals and the context in which it is performed. And while I agree that ongoing "worldly research" is of great value, I urge designers not to mistake the inadequacy of such synthesis for the unimportance of the focused research that feeds or should feed it.

Design itself isn't magic. It can be taught; it can be learned. It might resist understanding and, hence, prompt fear and marginalization among many. But it comprises, in part, the development and consideration of rationale.

I don't think the work of Tom Moran years ago on design rationale was so completely divorced from the nature of design and abductive thinking. And as Bill Buxton describes in his 2007 book, *Sketching User Experiences: Getting the Design Right and the Right Design*, being explicit about design rationale helps guide the design process away from decision by bullying or seniority and makes it easier and safer to determine whether a design decision should be changed after something new happens or is learned.

In short, what I'm saying is that—borrowing terminology from Jan Borchers—designers need to seek out "the sweet spot" between emotion and logic in order to reach "the sweet spot" in design and in influence within a business.

—Richard Anderson and Jon Kolko

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