When someone says "design evaluation," what comes to your mind? I'll bet that, like me, you probably think first of the process of identifying a design's flaws and inadequacies.

David Gilmore and Aaron Sklar think otherwise. Calling on us to take inspiration from a recent movement in psychology, David and Aaron urge the usability profession to adopt a positive attitude, to enlarge our focus from problem sniffing to a broader scope that includes appreciating design goodness where it already exists.

—Elizabeth Buie

ARE YOU POSITIVE?

While plumbing the depths of what is worst in life, psychology lost its connection to the positive side of life—the knowledge about what makes human life most worth living, most fulfilling, most enjoyable and most productive.

— Martin E. P. Seligman, APA Past President

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VALUING A POSITIVE PERSPECTIVE

By Aaron Sklar
and David Gilmore

As practitioners of human-centered design, we continually strive to develop new methods that ensure and enhance the value of our contributions to multidisciplinary design teams. In our own work, we regularly challenge ourselves to explore outside of the traditional comfort zone of addressing physical and cognitive factors. As we venture to explore beyond the basics, we recognize that creating products and experiences that people will value and enjoy requires positive thinking.

We find inspiration and camaraderie in the growing movement of positive psychology. This perspective emphasizes mental and emotional strengths rather than failings; it reminds us that our role encompasses much more than ensuring safety and minimizing confusion. In fact, all of us in this field have a responsibility to use human-centered design to create experiences that delight and empower.

Just as with psychology, human factors (HF) and human-computer interaction have been hampered by a disease model, focused almost exclusively on the diagnosis and avoidance of damage, rather than on developing our knowledge and understanding of how to create pleasurable experiences. Isn't it time to explicitly create a space in our work and our curriculum for a positive approach to human-centered design?

We declare that it is high time to do just this.

In our profession, we often find ourselves filling a negative role—criticizing bad design, explaining how poor design impairs natural human abilities, and focusing on what went wrong with a design. Who in our field has never been accused of being a member of the "human factors police"? After all, we lay down rules and tell colleagues which features to avoid. The traditional HF role of critiquing and evaluating can lead to a dysfunctional team that sees the HF practitioner as a creator of constraints, and views human-centered design as a chore. When working as members of multidisciplinary teams, we have to develop addition-

al skills that use human-centered insights as starting points for discovery and ideation, not decrees that limit the creativity of our teammates.

The results of a recent project in which we designed a self-injection device for people living with cancer illustrate and reinforce the philosophy of positive thinking. Over the course of this project, we came to know some incredible people—remarkable for their strength of character and their unique personalities. Although the project began with a focus on the design of instruments that would minimize discomfort, the human connections we made enlarged our scope. We realized the importance of giving these people opportunities to exert control over their treatment and, more importantly, of acknowledging that the disease did not have to overwhelm their entire life.

What can I do?

Although we encourage an explicit recognition of the value of positivism at the level of the usability community, as practitioners we will all have to find our own balance. Where can we individually begin?

➤ In your next usability test, identify the aspects of the product that received positive responses from your test participants.

➤ When eliciting user feedback, phrase some of the questions as a search for positives: "What do you want me to keep the way it is?"

➤ In evaluations, report back with lists of both strengths and weakness of the proposed design. See if you can make both lists the same length.

➤ Have empathy for the design team. Many problems result from well-intentioned designers focusing on the wrong goals, or maybe on only one (good) goal. For example, agonizingly small buttons may be the result of the commendable desire to keep the product small.

➤ Phrase any negative findings as new goals that the design team might benefit from considering. For example: "Could we design this so that each button only ever did one function?"

➤ Instead of proclaiming a judgment, engage the team in a discussion that allows everyone to reach the same conclusion as a group.

➤ Be on the lookout for examples of good design. Share your pleasant discoveries with others and explain why you find them praiseworthy.

POSITIVE THINKING Historically, HF reviews occur in the late stages of the design process, which explains why we have developed a critical mindset in regard to existing prototypes: Our educational system and practical methods encourage this mode of thinking. As teammates invited our expertise at the beginnings of projects (something for which we as a community have always pushed), we began to realize that our toolbox lacked certain skills necessary to make early-stage contributions. Though well equipped at evaluation and analysis, we stumble when it comes to using human-centered approaches as inspiration and tools for generating solutions. We find our tried-and-true methods and our mindset don't always provide us and our teammates with the needed impetus.

A Google search can illustrate our community's negative focus. A search on "bad design"

turns up sites such as www.baddesigns.com and www.websitesthatsuck.com, both of which provide numerous examples of impoverished design. In so doing, they deliver some powerful education about these topics. In contrast, a search on "good design" returns only a few hits, and consultancies claiming to do good design (e.g., www.creativegood.com and www.gooddesigns.com, the latter being only a portal to a design services company that also sells inexpensive inkjet cartridges!)

When our profession encounters a bad design, we tend to respond with an attitude of "Well, if only you had asked us for our assistance..." or (among ourselves) "Why are designers so stupid?" But this grumpiness damages us as well as the objects of our scorn. When we do nothing but complain, we learn nothing from it. At best, we collect new examples to show how overlooked and underpaid we are; at worst, we alienate yet another development team.

We find it striking (and depressing) to realize how many product engineers and development managers view usability testing as a hurdle that has to be jumped. We wonder what the world would be like if usability testing paid as much attention to features that work well as to those that don't. Then, even if a product fails the usability test, the accompanying positive feedback still could inspire the next product or version.

Our community's first steps toward positivity highlight the richness of this mode of thinking. Don Norman devotes a page of his Web site (www.jnd.org/GoodDesign.html) to the praise of good design, with about a dozen entries. Norman alerts us right up front: "NOTE: *Positive* examples only. This is a place for praise, not bashing. About time, don't you think?"

Hear, hear!

A positive approach to human factors does not diminish the importance of critique, but rather enlarges the picture for further understanding of good design. Furthermore, we enable great design by inspiring design teams to build on the positive. Where a negative approach to usability focuses on identifying design constraints for others to solve, a positive approach aims to remove constraints and present new opportunities.

OKAY, SO WHERE DO WE START? How do we embrace positive thinking in human factors?

- **Analysis:** Let's pay attention to examples of good design as effectively as we have lambasted bad design. This means not only identifying good design, but analyzing the designs enough that we can generalize opportunities there. The American Psychological Association created an award for the best positive contribution to the field—imagine a CHI conference with at least one session where all three papers present analyses of "products" that have achieved success in human-centered design.
- **Metrics:** Let's find ways to document good, usable design, not only defects in bad design. Bad design seems to be much easier to identify, having a clearer consensus of pain, injury, confusion, and all of the errors that make for bad design. Good design must be more than

the absence of predefined faults. Consistent language and metrics overcome the perception of good design as a purely subjective assessment. Online reviews such as, Epinions or Amazon, can provide solid qualitative evidence of good design.

- **Expertise:** Let's find new ways to articulate our expertise. All consultants, internal or external, face this challenge. Too often in the negative approach, others perceive our expertise as being limited to critique and fault-finding. In the positive approach to human-centered design, we must endeavor to present our expertise as an understanding of the universals of human behavior—a critical ingredient to good design.
- **Mindset:** Let's leave the door open for positive views. Another review Web site, www.cnet.com, invites reviewers to list pros and cons. The "cons" section includes the expected criticism, but the "pros" section reveals the emotional element with the common occurrence of words such as "love" and "awesome." In our own usability explorations, we have often been surprised by the responses to the positive-focused question, "What is the one thing about this that you would want us to keep, regardless?"
- **Evolve:** Let's develop new methods. Our curriculum will need to move on from those parts of our legacy that no longer work for us. We wonder if we don't need to gain some distance from the human factors legacy in military, aviation, and safety-critical industries. Although the research in these areas is extremely important, their high-risk nature makes them very different from much of the software and product design work in which most of us are engaged. The extreme implications of failure in the aviation domain resulted in the development of a highly analytical set of HF methods. As we explore new areas for applying our skills in industries as diverse as toy design and beauty products, we must simultaneously develop tools relevant to these new applications; for example, we can develop techniques that help us evaluate the relative importance of different sources of delight.

ENGAGING POSITIVITY We urge our profession to embrace, explicitly, a positive approach to human-centered design—in much the same way that our counterparts in psychology have begun to embrace positivism in their field. We would like to see journal papers and conferences dedicated to improving our understanding of good human-centered design and improving our knowledge of what inspires others to design well.

Of course, we don't suggest that our profession should apply the positivist approach exclusively; we fully recognize the importance of balancing the positivist with the critical. Bad design will always exist, and safety-critical systems will always need thorough examination; but in addition to reviewing usability and protecting people's safety, we need to discover tools that fit our positivist outlook.

We'd love to hear debates and dialogues that can lead to changes in how we see our own expertise and our contribution to the design process. We'd like our profession to be perceived as inspiring rather than discouraging, freeing, rather than constraining. All of us can be catalysts rather than critics.

AUTHORS' BIOS

Aaron Sklar developed an appreciation for positive feedback when he joined IDEO in 1997—the warm enthusiasm of his teammates contrasted sharply with the critical red ink of the academic world. The positive mindset has reached a synergy with his most recent obsession—bikram yoga—which emphasizes the pursuit of progress without dwelling on limitations.

David Gilmore has also been a member of IDEO's human-centered design team since 1997, describing himself as a "technophile luddite." His main passion is hiking with his dogs throughout the Cascade Mountains from California to Canada, but also in helping others to make products that are more about "people-pull" than "technology-push."