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The Challenge of User Experience Design



n many user-interface-design-oriented organizations and publications, we learn increasingly of a concern about issues that extend the reach of the profession beyond traditional human factors and usability, where usability is often summarized as a combination of effectiveness, efficiency, and satisfaction. I have in mind the substantive and rhetorical additions of usefulness and appeal—particularly, achieving a pleasurable user experience. These objectives seem especially important for mobile device design, for which usability and product enjoyment are equally of concern. It is a charming twist of history that the classical architectural design ideals of commodity, firmness, and delight proposed by Vitruvius more than 2,000 years ago should resurface.

One sign of this interest are the recent papers on fun and anthropomorphism, for example, in the Proceedings of the HCI 2002 conference, which recently took place in London [8, 13, 14]. Even the esteemed computer scientist David Gelernter has weighed in on the subject

of computers and happiness [3]. Another example is Patrick Jordan's book *Designing Pleasurable Objects: An Introduction to the New Human Factors* [4], in which he uses psychological theories to propose four levels of pleasure that designed artifacts should provide us (in order of importance from highest to lowest):

- * Cognitive/intellectual
- * Social
- * Psychological/emotional
- * Physical

It is worthwhile—in this Dionysian rush to pursue pleasure and, specifically, happiness—that we recall similar experiences from other fields of design. Computer science, and then human-computer interface design, has a track record of wandering with ignorance into new domains of human communication and design. For example, in the early 1980s a Xerox PARC researcher asked me what I thought about styles in computer graphics.



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I immediately thought she was referring to the exciting future of computer-based communication in which imagery might be conveyed with the aesthetic style of the Bauhaus vs. Art Nouveau. It turned out she meant whether I thought that lines should be given attributes of solid, dashed, or dotted.

If developers of computer-based communications and artifacts wish to delve into the sophisticated subject matter of delight and pleasure, it seems advisable to consult with expert guides on these topics, to inform themselves, and to approach some of the possible avenues of emphasis with

caution—in particular, the likely emphasis in future user-interface design on cuteness.

Cautiona<mark>ry Signs on the</mark> Road to Cuteness

I bring up this topic, seemingly months, or years, before its likely standing before many application—and some document—publishing developers in many different markets (for example, general consumer, travel, finance and banking, medicine, education), because "progress," or at least change, seems to be occurring with increasing rapidity.

Since the mid-1980s I have written and lectured about quality visual design, advised developers that the future might bring genres of user interfaces—much like we now have genres of traffic school (comedy, cooking, news, and so on, in which a layer of additional content is provided to the highway truant)—and urged developers to hire professional comedians, not programmers or technical documentation specialists, to write the jokes for help messages. It seemed likely with the advent of CD-ROM multimedia and

then the Web that user interfaces would become increasingly complex communication vehicles, somewhat like movies, requiring the organizational and professional skills of many disciplines.

In my own experience, it was not until 1995 that a client actually told me: "I like your user interface, but could you make it a little happier." Happier? We were working on the design of the home screen, and on one of the main air-travel booking screens for Planet Sabre, a revolutionary advancement to one of the world's largest extranets (a case study appears in Marcus [5]). On the image of a

planet with many icons representing the primary applications suite, the image of a traveler (representing the database of customer information) admittedly looked slightly weighed down from his heavy luggage. In addition, there were, I admit, somewhat dark, heavy coloring and shadows in the continents and in the curved forms of the automobile representing rental car booking. In focus groups, comments had been made about these pictorial components. Travel agents preferred realistic imagery, not cute cartoon-

like images, which seemed to demean their status or self-image. Yet they were also sensitive to wanting "pleasant" imagery. Following the maxim of "keep the client happy," particularly if it does not interfere with primary functionality of the design, we agreed to redesign the icon and coloring, producing a sprightly passenger with a bouncing stride seemingly undaunted by his featherweight luggage and Disney-like green grass on the continents of this pseudo-earth. By making the user interface happier, we were meeting the request of the client to "cutify" the realis-

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tic image and to make a more pleasurable user experience. The line between realism and cartoon-cute seems likely to vary for different markets and cultures. At first we were reluctant but recognized some positive value in the tune-up of the imagery. Nevertheless, I was aware of cuteness creeping into our design decisions.

I have been interested in the subject of cuteness since childhood, when I first began to practice cartooning, carefully copying Disney characters, Al Capp's Shmoo, and other adorable creatures in my extensive comic book collection. Thirty years later, in

the mid-1980s, I was startled to discover Japanese manga comics during trips to Tokyo. In addition to graphic violence and sex, these publications also contained strong streams of cuteness, which were amplified in my mind, by my introduction to Hello Kitty®, the treasured Japanese asset of a worldwide franchising effort of this cuteness brand by Sanrio [9]. I now subscribe to the Hello Kitty quarterly catalogue (doesn't everybody?), in which I can view the spread of this leading cuteness virus throughout the world.

Even Japanese businessmen read manga, and I have seen North American men (well, at least one) sporting Hello Kitty backpacks. Even Hello Kitty has competitors for cuteness, like Pokémon; the Koreans also seem to vie with the Japanese in their love of cute cartoon characters. I have not read a detailed sociological, cultural, or psychological explanation of Asian fascination for cute cartoon characters (I am sure there are scores of doctoral dissertations), but I do know of user-interface research of photo products by Kodak that attest to the Asian interest in pictorial and visual signs. And, I have had direct "observational experience" by walking through theme stores for Hello Kitty products and its competitors in Seoul and Tokyo,

which are much more extensive than anything I have seen in Europe or North America. These stores are temples of cuteness at which devotees may worship—and purchase—"religious icons" endowed with some important kind of emotional potency. Today, a certain segment of young Japanese men and women, rejecting traditional norms, dress in eccentric, intense styles of eclectic cuteness adapted from U.S. clothing, cartoons, and other sources. They are catalogued in Aoki's photo book *Fruits* [1] if you care to examine them, or you can go the Shibuya section of Tokyo near the subway station and see them

for yourself.

Current advanced computer-human interaction (CHI) research is not far from exploring the topic of cuteness. The theme of the 2001 New Paradigms in Using Computers (NPUC) conference held annually at IBM Research Laboratory in Almaden, California (see www.almaden.ibm.com /cs/npuc2001), featured a complete agenda of games designers speaking to softand hardware ware researchers so that the latter might learn from the former important techniques of making more

successful office, vertical market professional, and general consumer products. The advent of entire conferences devoted to entertainment computing (see, for example, the First International Conference on Entertainment Computing held in Japan in May 2002, www.graphic.esys.tsukuba.ac.jp/iwec2002/) attests to the strength of this direction. On a more down-to-earth level, all of the customized faceplates, downloadable logos and images, and jingles of ringer tones all attest to a rapidly expanding desire for cute, cuddly, reassuring user experiences.

Cuteness comes in many flavors. Visual forms favor the use of large-eyed creatures, bright colors and pastels, and biomorphic

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forms. The history of the transformation of the original Mickey MouseTM, which was quite rodent-like, into the mass-marketed version follows a direct trajectory of acquiring ever more cute features that have been analyzed as babylike (big head and eyes, for example). Some Web sites that have adopted cute or semicute user interfaces include www.shutterfly.com/index.jsp and www.bigwords.com/. The Macintosh has always been much cuter than Microsoft Windows' user interface (except for the ill-fated Bob user interface, which tried to be "super cute." It may have been ahead of its

time and merely rendered poorly). Consider the cartoon-like logo of the Mac operating system itself, for many years a kind of smiling Happy Face. Macintoshes new OS X Aqua user interface may have gone too far with fluorescent jellybeans for buttons. Microsoft, for its part, has made Windows XP far cuter than Windows 2000.

Why, then, do I express caution? I myself love adorable teddy bears (I still have my own childhood companion somewhere in the attic). Like the human

desire for sugar, carbohydrates, nicotine, and other substances that give us pleasure, beyond nutritional needs, there is a strong likelihood of overuse, or even abuse that, in the hands of commercial effectiveness, leads to societal circumstances that are less than desirable (like the recent worldwide growth in obesity and its consequent medical and health implications). Although cuteness in user interfaces clearly is not as pernicious (or yet as pervasive) as other social trends, it deserves attention.

A dyspeptic analysis by Annalee Newitz in the San Francisco Bay Guardian [10] provides an engaging, effective, and strongly biased introduction to the topic: "Why is everything so damn cute? The fluffy-bunny regime is

getting ugly." She reminds us of the understandable appeal of cute creatures: They appeal to the child in each of us, and like comfort food, we seek out cute things when we need reassurance during stress, just as nutritionists inform us that we seek sugar and carbohydrates.

One danger of cuteness includes the tendency to invoke cultural, historical, or social amnesia, as when we think of Japanese animé or manga providing a reference for Japanese culture. Another danger is the reinforcement of some questionable aspects of gender roles, especially the tough and tender

dichotomy of male and female. Cuteness sometimes seeks to turn people, especially young women, and even adults into powerless children, to smother dissent and edginess, and to create a bland consistency, with a loss of true diversity.

An example of this kind of homogenized, bland cuteness is to be found at the international-theme area of DisneyWorld in Orlando, Florida. A few years ago, as I toured the separate stalls and shops of Morocco, India, France, and other countries, I realized they were all peopled

by bright, smiling faces of young, blond-haired, blue-eyed, fair-skinned Floridians dressed in ethnic costumes, and all the booths smelled the same, except one (I believe it was Morocco) in which the smell of actual leather goods could not be masked. Everything else had been reduced to a safe sameness, with mild differences, that was unnerving, even potentially frightening to me, but seemed to provide safe, secure, "useful" experiences for the visitors.

The article I cited rails against the rise of cuteness while acknowledging some of its merits. Nevertheless, the author disparages the negative aspects of cuteness when it is blown out of scale. We might consider the same cautions for cuteness in user-interface design.

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Conclusion

As we move away from purely functional, "limited" design to "formal" eclectic play, much as Robert Venturi and Denise Scott-Brown urged in the architectural design community in the 1970s in books like Learning from Las Vegas [16], and as we move from classical and renaissance styles in our user interfaces to baroque, rococo, and eclectic, postmodern user interfaces, let us not forget that the desire for cuteness as a need for solace or reassurance in turbulent times can be helpful but it can also be mere amusement, taking us away from considering more challenging, weighty, and urgent matters.

User-interface design is transforming itself from its origins in computer science and human factors, from concerns of utility and efficiency. In one sense, to use some global travel metaphors, our trip started in Zurich, traditional home of sensible, beautiful timepieces. We seem to be headed for Las Vegas, Hollywood, or even Bollywood, the Indian film capital, traditional home of emotional sagas drenched in well-known (to its audience) cultural stereotypes and soap-operatic plots.

Cuteness is one path for providing pleasure in user-experience design, whether we are talking about applications and documents (tools and content) for desktop client-server networks, CD-ROM standalone multimedia. Web-based access, mobile devices and information appliances, or vehicle user interfaces. Cuteness can become a commodity serving relentless commercialization that, in the extreme, dehumanizes user experience, driving out variation in pursuit of megahit, lowest-common-denominator success. The cult of cute is not in itself bad, but we need to be aware of and thoughtful about how to use it in moderation. As Newitz comments at the close of her article, "Ultimately, the problem is not cute, but how and when we use it."

For some of you, this commentary may seem like a bizarre, paranoiac, other-worldly warning. Keep this article around and check it in one year to see how things seem then. In the meantime, cutie pies, you know who you are, have fun and be thoughtful.

Related URLs

- * www.almaden.ibm.com/cs/npuc2001 2001 New Paradigms in Using Computers (NPUC) conference, held annually at IBM Research Laboratory in Almaden, California, near San Jose
- * www.graphic.esys.tsukuba.ac.jp/iwec2002/ First International Conference on Entertainment Computing held in Japan in May 2002
- * www.ku.edu/history/index/europe/ ancient_rome/L/Roman/Texts/Vitruvius/ home.html Information about the works of Vitruvius
- * www.plastic.com
- A cartoony "subterranean Web site" cited by Newitz [10]
- * www.sanrio.com

 The source of the Hello Kitty brand/
 philosophy/"religion"
- * www.slashdot.org

 A "cute on the outside but prickly social criticism and snarky anticorporate commentary" on the inside cited by Newitz [10]
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