

Human Computer (Sexual) Interactions

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There are few better examples of the pervasion of computing technology into private life than the proliferation of human-computer sexual interactions. Although the HCI community has become increasingly interested in leisure contexts, entertainment, emotion, affect, enjoyment and fun, it tends to ignore the fact that one of the ways many people have fun with their computers is by accessing pornography. Indeed pornography may well be the only reason that some people own home computers at all [8]. “Sex” and “porn” have been the most frequent Internet search terms since the Web became widely available, and terms relating to the topic are so prevalent that they have to be filtered from indices of current popular searches. All of the key issues of usability, accessibility, and (increasingly) enjoyability, which concern HCI, apply equally to pornographic applications. Yet searches of the ACM’s digital library yield no articles discussing, for example, the effective design of pornographic Web sites or the lessons that might be learned from successful pornographic applications. What work there is, very properly, addresses the prevention of crime, but there is almost no work on mainstream adult entertainment.

New communication technologies have been used in the production and consumption of pornography with such regularity that the appropriation might be formulated as a general rule. Technologies such as pho-

tography, film, video, the telephone, and the PC have all been appropriated and, as with DVD for instance, technically advanced for the purpose of pornographic productions [8]. Manufacturers of mobile phones with video capability have been quick to realize that the distribution of pornography will likely be a staple source of profit for them [7]. On the Internet in particular, pornography is considered a money making-industry with an estimated yearly profit of \$10 billion. After the dotcom bust technical jobs in the porn-industry became an important source of work for newly unemployed computer engineers and designers. [5]. The remarkable and continuing success of online pornography may carry important lessons for other commercial applications on the Internet yet these sites are rarely considered in studies of, for example, establishing online trust.

Sexual imagery is increasingly evident in the mainstream media; the boundary between soft-core porn and music videos, for example, is becoming blurred. It can be argued that technology does not change pornography; it simply repackages it. But in another sense, and one Marshall McLuhan famously argued, "The medium is the message." Computers and the Internet have changed not just the quality of pornography available, but also the numbers and the variety of people creating and accessing it. Ten years ago pro-porn feminists like Camille Paglia called for more and better pornography [9]. More is clearly to be had, whether it is better or not is, of course, debatable. Although Sherry Turkle has explored the phenomenon of cybersex as an expansion of the self where identities are multiple and sexual congress is an exchange of signifiers [10], there is much that we do not understand about human-computer sexual interaction. HCI could, and perhaps should, make a contribution to this field of study.

Other academic disciplines have been less reluctant to recognize the significance of pornography as a field of study, with valuable work being conducted in such areas as sociology, media studies, and psy-

chology. However, placing pornography in an academic context can still cause what Stanley Cohen defined as a "moral panic," a process in which "public concern about a particular condition is generated, [and] a 'symbolic crusade' mounted" [2]. This was the experience faced recently by the second of author this article when he found himself on the front page of his local newspaper for including pornography in a course on controversial forms of art and representation. Under the headline, "Students Study Hard Porn," [9] The *Sunday Mercury* attacked a module for attempting to engage the significance of pornography—how it is produced and what its effects might be. Further coverage in the national press and on British and Irish radio demonstrated that pornography is still perhaps the most sensitive field of enquiry in academia. But academia cannot allow itself to be driven by a hypocritical press. The increasing "pornographization" of our culture is too important a phenomenon to ignore.

Each year billions of dollars are spent on pornography; in fact, it has been claimed that more is spent in the U.S. on pornography than on movie tickets and the performing arts combined [6]. Though you may never look at it, you probably know someone who does, or has, or will. The "elephant in the room" is an expression for the big subject that everyone knows is there but no one wants to discuss. As Bell, Blythe, and Sengers have argued, one of HCI's elephants is pornography. Although such elephants are difficult to talk about it is not possible to ignore them indefinitely [1].

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The Age of Auspicious Computing?

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Information and communication technologies are so pervasive that they are becoming a part of our spiritual lives. By December 2003, more than 35 million Americans will have searched for religious or spiritual information online [3]. On the face of it, that might not seem like much, but in the same period only 36 million downloaded music files.

But in the West, there is a long and complicated relationship between technology and religion. After all, Johannes Gutenberg's printing press produced the Bible in the 1450s, making it the first book to be mass-produced. Today, the largest online genealogical service is run by the Church of the Latter Day Saints; similarly, Christian radio and television stations are flourishing in the United States, and e-Mosque projects are underway in Malaysia and Indonesia. Thus, it is not difficult to imagine that new information and communication technologies (ICTs) are being re-purposed to support a wide range of non-secular activities. Some of these re-purposings have been well documented, and some has been theorized [1, 4, 6]. This article focuses on several instances of techno-fied spirituality.

The Age of Auspicious Computing

Religious expression and ritual have found