

Healthy HCI?

We often have debates about what HCI is. The point is to know what we are doing so that we can do it better. If we decided that, really, HCI was architecture we would go about it in a very different way that if we thought it was psychology.

If HCI was like French, we would be emphasising the right ways of speaking to complex systems. In French itself, we learn how to speak, read and understand another human language. We might, as we became fluent, be interested in different dialects like the variations between Microsoft and Apple systems. If HCI was French, it would help lots of people communicate with devices and have more fulfilled lives interacting better.

If HCI was biology, we would spend more time analysing systems and their behaviour. There are biologists studying fleas and biologists studying elephants; biologists doing social stuff, biologists doing chemistry; and so on. Just because elephants are bigger and get better PR doesn't stop good research also being done in the foundations of the subject. HCI is too full of trendy photogenic elephant research at the expense of other species, to say nothing of the underlying biochemistry, genes and fundamental science. Biology isn't just TV nature programmes, important as they are.

Medicine shares a lot with HCI. People have medical problems and doctors want to fix those problems. There is a whole range of medical approaches, ranging from physiotherapy that trains people to cope better — like HCI's emphasis on training. There's corrective surgery, like HCI might do "hip replacements" to change one system for a better one. There's preventative medicine, health, fitness, forensic, pharmaceuticals and other branches. Both medicine and HCI are trying to improve people's lives and both have the knowledge and power to do so. If you invent a drug to combat a disease you transform the world; if you develop a user interface you transform the world.

Medicine has been around a lot longer than HCI. One of the first substantial contributions to medicine was the Hippocratic Oath, written when medicine was as hit-and-miss as today's HCI! We could learn from the way medicine is done today: the main difference is still ethics. There are very exacting procedures for developing new drugs. Yet when we develop new web technologies, affecting millions of people, are the experiments done carefully, or with half a dozen students? What ethics is considered?

But HCI is HCI. Computers are so versatile that HCI could be, and is, any and all subjects. We use computers to learn French, we use them as artists, we use them in fashion, and we use computers to do surgery and so on. What will change HCI and enable us to do it better is not what we are doing *with* computers but what *extra* we bring to the discipline. We should learn from medical ethics. Next time you do an HCI experiment, consider how a careful medical scientist would do it. After all, both fields — medicine and HCI — are improving people's lives, but medicine has been doing it longer, so we surely have much to learn from it.

Would you only do experiments on your own familiar systems? Would you announce results with only three out of five patients cured? Did you use placebos? Double blind? Controls? When you published in CHI, did you describe the experimental procedures and the drugs used clearly enough for other people to check your results? Did you put your system on the web to help others build on your work?

If we are to improve HCI, one of the places to start is in our procedures for publishing and disseminating best practice. In medicine, any reliable knowledge is worth building on; in HCI practice we are more often concerned with the excitement and business side of things than the quality of the science and the ethics of doing it.

Finally, we should at least work to basic clinical standards when we do get to help design medical systems. Most operating theatres are scary places for HCI experts! We have a lot of work to do to raise our standards.

For further reading see, for example, <http://www.publicationethics.org.uk/>, <http://www.ama-assn.org/ama/pub/category/2503.html>, <http://www.apa.org/ethics/code.html>, and <http://info.acm.org/serving/ethics.html>.

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