Ethics and HCI

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INTRODUCTION

The goal of HCI research and design has been to deliver universal usability. Universal usability is making interfaces to technology that everyone can access and use. However, this goal has been challenged in recent times. Critics of usability (e.g., Eliot, 2002) have argued that usability "dumbs down" the user-experience to the lowest common denominator. The critics propose that focusing on ease of use can ignore the sophistication of expert users and consumers. At the same time, researchers have begun to investigate suprafunctional qualities of design including pleasure (Jordan, 2000), emotion (Norman, 2003), and fun. While recent discussions in HCI have bought these questions to the surfaces, they relate to deeper philosophical issues about the moral implications of design. Molotch (2003, p. 7), states that:

Decisions about what precisely to make and acquire, and when, where, and how to do it involve moral judgements about what a man is, what a woman is, how a man ought to treat his aged parents…how he himself should grow old, gracefully or disgracefully, and so on.

One response to this moral dilemma is to promote well-being rather than hedonism as an ethical design goal.

BACKGROUND

The Western ethical tradition goes back to ancient Greece. Ethics develop the concept of good and bad within five related concepts:

1. Autonomy
2. Benefiance
3. Justice
4. Non-malefiance
5. Fidelity

At an everyday level, ethics (the philosophy of morality) informs people about the understanding of the world. The motivation for ethical behaviour goes beyond the gratification of being a good person. Social cohesion is based on a shared understanding of good and bad. Bond (1996, p. 229) suggests that ethics tries to: "Reconcile the unavoidable separateness of persons with their inherently social nature and circumstances."

DESIGN

Design is the intentional creation of utilitarian objects and embodies the values of the maker. Harvey Molotch (2003, p. 11) argues that products affect people:

At the most profound level, artefacts do not just give off social signification but make meaning of any sort possible…objects work to hold meaning more or less, less still, solid and accessible to others as well as one's self.

The moral responsibility of design has led some (e.g., William Morris) towards an ethical design approach. Ethical design attempts to promote good through the creation of products that are made and consumed within a socially accepted moral framework. Victor Papanek (1985, p. 102) has focused on the ecological impact of products and has demanded a "high social and moral responsibility from the designer." Whiteley (1999, p. 221) describes this evolution of ethical design as: "[Stretching] back to the mid-nineteenth century and forward to the present. However, just what it is that constitutes the ethical dimension has changed significantly over 150 years, and the focus has shifted from such concerns as the

virtue of the maker, through the integrity and aesthetics of the object, to the role of the designer—and consumer—in a just society."

Unlike Morris's arts and craft approach, engineering and science based design is often perceived as value free. Dunne (1999) quotes Bernard Waites to counter this apparent impartiality: "All problems…are seen as 'technical' problems capable of rational solution through the accumulation of objective knowledge, in the form of neutral or value-free observations and correlations, and the application of that knowledge in procedures arrived at by trial and error, the value of which is to be judged by how well they fulfil their appointed ends. These ends are ultimately linked with the maximisation of society's productivity and the most economic use of its resources, so that technology….becomes 'instrumental rationality' incarnate…."

HCI

HCI applies scientific research to the design of user-interfaces. While many (e.g., Fogg, 2003) have promoted ethics in HCI, Cairns and Thimbleby (2003, p. 3) go further to indicate the similarities between the two: "HCI is a normative science that aims to improve usability. The three conventional normative sciences are aesthetics… ethics…and logic. Broadly, HCI's approaches can be separated into these categories: logic corresponds to formal methods in HCI and computer science issues; modern approaches, such as persuasive interfaces and emotional impact, are aesthetics; and the core body of HCI corresponds with ethics…HCI is about making the user experience *good*."

In promoting "good" HCI, ethics has concentrated on professional issues and the impact of functionality, ownership, security, democracy, accessibility, communication, and control. Friedman (2003) summarises this work as pertaining to:

1. Accountability
2. Autonomy
3. Calmness
4. Environmental sustainability
5. Freedom from bias
6. Human welfare
7. Identity
8. Informed consent
9. Ownership and property
10. Privacy
11. Trust
12. Universal usability

Guidelines are often used to communicate HCI ethics. Fogg (2003, pp. 233-234) provides guidelines for evaluating the ethical impact of persuasive computing. This requires researchers to:

1. List all stakeholders.
2. List what each stakeholder has to gain.
3. List what each stakeholder has to lose.
4. Evaluate which stakeholder has the most to gain.
5. Evaluate which stakeholder has the most to lose.
6. Determine ethics by examining gains and losses in terms of values.
7. Acknowledge the values and assumptions you bring to your analysis.

Standards are a more mandatory form of ethical guidelines and prescribe processes, quality, and features. Compliance can be informal or through "de jure" agreements (e.g., International Organization for Standardization, 2000). Cairns and Thimbleby (2003, p. 15) offer a less stringent set of HCI ethical principles ethics comprising:

1. A rule for solving problems
2. A rule for burden of proof
3. A rule for common good
4. A rule of urgency
5. An ecological rule
6. A rule of reversibility

Citing Perry (1999) as evidence, Cairns and Thimbleby (2003, p. 15) imply that ethical rules are a poor substitute for knowledge:

Students…generally start from an absolutist position: 'There is one right way to do HCI.' This initial position matures through uncertainty, relativism, and then through stages of personal ownership and reflection. At the highest levels…a student makes a personal commitment to the particular ethical framework they have chosen