

Ethics and Affective Computing

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Sensing affect raises critical privacy concerns

Affect sensing systems encode a designer's ethical and moral decisions:

which emotions will be recognized,
who can access recognition results,
what use is made of recognized emotions.

Users want feedback and control over such ethical choices.

Some weighty questions

Would it be ethical for a computer to sense a user's emotions?

If a perceptual user interface has the capability to detect emotions, would this be an invasion of privacy?

Are users comfortable with having their emotions sensed?

Critical issues for designers of interfaces that sense affect

Right now affective sensing systems are being designed and used in ways that raise important ethical concerns

E.g. DARPA's (Defense Advanced Research Projects Agency) :
Integrated System for Emotional State Recognition for the
Enhancement of Human Performance and Detection of Criminal Intent

<https://www.acq.osd.mil/osbp/sbir/solicitations/sbir20032/darpa032.pdf>

Affect detection without consent or knowledge of users.

The emphasis of ethics in technology is

not on what *can* be done,
but what *should* be done.

What is computer ethics?

Morr 1985, What is Computer Ethics, *Metaphilosophy*, 16 (4)

“there is a policy vacuum about how computer technology should be used. Computers provide us with new capabilities and these in turn give us new choices for action. Often, either no policies for conduct in these situations exist or existing policies seem inadequate. A central task of computer ethics is to determine what we should do in such cases, i.e., to formulate policies to guide our actions”

Policy vacuum in affective computing

The introduction of affect sensors has created a policy vacuum.

The ethical consequences of sensing user emotion are unstudied, and methods for dealing with them in a manner users and designers see as ethically acceptable are absent.

The designer/programmer makes a variety of moral and ethical decisions in the development of software.

When users encounter a new technology, they are at the outset in an initial bargaining position. Users can choose to use or not use a technology based on their evaluation of the software's ethical stance.

Implicit and explicit contract in technologies between designer/programmer and user.

Implicit contract

Users may evaluate an interaction technology for a period of time before accepting or rejecting its use.

Explicit contract

When the contract is explicit, in terms of a privacy policy or social contract, users can assess the designer's ethical decisions more immediately.

Reynolds and Picard (2004) found regardless of which emotion was detected, participants who had a contract felt their privacy more respected.

Without an ethical contract, participants report that their privacy is invaded.

With contracts, report an increase in respect.

Ethics Debate -

John Sullins, Robots, Love, and Sex: The Ethics of Building a Love Machine, *IEEE Transactions on Affective Computing* 3(4) 2012

Argument 1

Love is more than behavior. It is important to design robots so they act in predictably human ways but this should not be used to fool people into ascribing more feelings to the machine than they should. Love is a powerful emotion and we are easily manipulated by it.

Argument 2

Friendship (philia) with robots is more important than romantic love. It is permissible and even desirable to design robots that act in concord with their users; affective friendship will be a hard enough to achieve so we should start there. Given that we will be able to mimic emotions in a robot long before we will be able to produce truly affective machines, it is advisable to be circumspect in how exploit human psychology in the design and deployment of these machines.

Argument 3

Truth is important. Roboticists should not design machines that intentionally lie to their users and with those lies manipulate the user's behavior.