

Progressive HCI: Other Domains

Jon Kolko
Savannah College of Art & Design

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Overview

Changing nature of HCI as a field:

- Social Implications of Computing
- Convergence
- Groupware

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Social Implications of Computing

- As designers, we need to be aware of the larger consequences of our actions
- **Immediate detail level**
("The way this UI works makes me feel bad")
- **Larger, conceptual level**
("People are spending more time on the internet and less time with their families")
- **Global, humankind level**
("We are creating a generation of kids with no attention span who are unable to learn anything in- depth and who are surrounded with electronic devices instead of human love and emotion")

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Social Implications of Computing

- Community Issues:
 - Privacy
 - Freedom of Speech
 - "Digital Divide"
- Design Issues:
 - Net use causes Depression?
More online relationships = less offline relationships?

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Social Implications : Privacy

It never goes away!

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Social Implications : Freedom of Speech

Doing a report on Nazi Germany for Junior High? Would your facts be right? (2nd result!)

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Social Implications : Digital Divide

(data as of 2000, "Falling Through the Net"):

- 51% of all US homes had a computer
- 41% of all US homes had internet access

Of those with internet access:

- 46.1% of white families
- 56.8% of Asian families
- 23.5% of black families
- 23.6% of Hispanic families

Why is this important?

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Social Implications : Homenet Study

- Families surveyed before, during and after [longitudinal survey]
- 1 year investigation
- 169 people, 73 families
- CMU provided families with computers
- Generally was "their first experience with a powerful home computer."

Findings:

- Internet isolation is paradoxical (ie, there are more chances for communication – should be *less* isolated!)
- Link between high use and social isolation is likely causal
- The Internet may replace strong social ties with weak ones

What do you think?

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Convergence

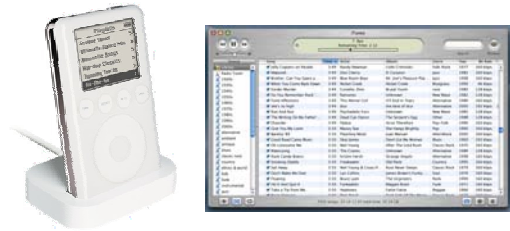
- Traditionally,
 - .. industrial design dealt with physical form
 - .. HCI dealt with usability of software
- Now, more and more products are **converging**:

The lines between the product and the interface are blurring, and *the interface is becoming the product*.

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Convergence

What, specifically, is the product here?



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Convergence

- Covered more in IDUS317, Interactive Product Design
- The HCI techniques we've discussed apply to the physical, too!

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Groupware (CSCW) – What Is It?

- CSCW, or **Computer Supported Cooperative Work**, looks at how groups work and seeks to discover how technology (especially computers) can help them work
 - Communication
 - Collaboration
 - Coordination
- Specialized computer aids designed for the use of collaborative work groups
- Small, project-oriented teams that have important tasks and tight deadlines.
- Involves software, hardware, services, and/or group process support.

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Groupware (CSCW) – Some Examples

- Traditionally, CSCW is a troubled field.

Lots of **hype** – the “next big thing” is always around the corner. Not a lot of realistic returns *in business*.

- Video Teleconferencing
 - Online Calendars
 - Chat, as a business tool
- However, CSCW has been very successful when you take the “W” away:
 - Computer Supported Cooperative **Education**
 - Computer Supported Cooperative **Gaming**

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Groupware (CSCW) – Some Examples

- Part of Jon's Thesis.
 - Carnegie Mellon
 - Texas Instruments
 - 9 month investigation
- How to establish a network of TI calculators with minimal infrastructure
- What could such a network do to aid in education