Usability Engineering CS 3240 Experiences from the "real world"

Keith Instone
@keithinstone
keith2013@instone.org
http://instone.org/

BGSU Computer Science

- 1983: Freshman in CS
- 1985: Bachelor's
- 1986: Graduate studies, Software engineering
- 1988: Research Associate, HCI & Sys admin
- 1992: Hypertext research & teaching
- 1995: Web usability
  - 1997: Left BGSU
- 2006: Graduate human factors instructor

Consulting

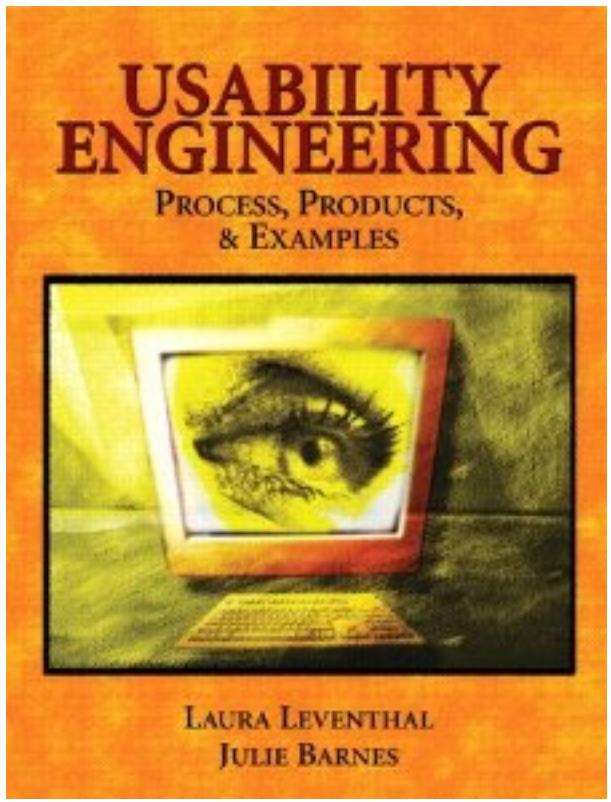
- 1997: Independent, web usability
- 1999-2001: Argus Associates, Usability specialist
- 2012: Independent, strategic user experience

IBM

- 2001: ibm.com, user-centered design, marketing & sales, navigation
- 2004: Technical architecture, Search
- 2006: Team leader
- 2008: Web UI design standards, Agile
- 2010: Intranet
- 2011: Product UI standards
  - 2012: Left IBM

Usability Engineering: Process, Products, Examples

- Dr. Leventhal, Dr. Barnes
- For an introductory, one-semester course in Usability Engineering.
- Written in an accessible, conversational style, this comprehensive introduction is crafted to support a project-based course emphasizing the development process.
- The authors provide detailed coverage of fundamentals without unnecessary depth or breadth, aiming to foster an understanding of the goals and process of usability engineering.
- Students gain valuable hands-on experience that will serve them in future careers.



Definitions (Ch 2)

- HCI
- Usability, usability engineering
- User interface

- Why important now (vs. before)?
- Why hard?
- User experience

Usability models (Ch 3)

- Shackel, Nielsen, Eason, Book's model
- How to think, talk about usability (put you ahead)
- User experience (again)

Process (Ch 4)

- Waterfall software development (& usability engineering)
- Team (of developers)

- Team (cross-disciplinary)
- “Code writing” vs. “Software engineering”
- Agile

Understanding users (Ch 5)

- Contexts
- Use cases
- Scenarios
- Task analysis
- User profiles

- Personas
- User research methods (lots)

UI Design / Specs (Ch 8 & 13)

- Menus, Windows, Forms
- Direct manipulation (GUIs)
- Command line
- Video games & Virtual reality
- Activity diagrams, UML

- Desktops (GUIs) --> Hypertext --> Browser-based Apps --> Native Apps (GUIs)
- Boxes & arrows, Wireframes

Guidelines & Standards (Ch 7 & 9)

- Metaphors
- Modes
- User control
- Platform guidelines
- Project guidelines
- Industry standards
- Visual design, Screen layout

- Corporate guidelines & standards

Prototyping (Ch 10)

- Fidelity matters
- Tools

Assessment & Evaluation (Ch 11)

- When to do it
- How to do it
- Analytic
- Expert evaluations
- User testing
- Measuring performance

- Measuring behavior & emotions

Understanding humans (Ch 14)

- Information processor
- Memory
- Problem solving

- Embodied cognition

Universal Usability (Ch 15)

- Accessibility

- Accessibility > Usability
- Usability > Accessibility

What else?

- More questions, comments?!?

- Feel free to contact me later:

Keith Instone
@keithinstone
keith2013@instone.org
http://instone.org/