HCI, Robots, Online Education

- Human Computer Interfaces/Interaction
- Robots everywhere?
- Is Education the next “industry” to be disrupted by the web?

Designing Good Interfaces is Hard

- How do you turn off a Windows computer?

When the next slide appears immediately shout out the color you see. Ignore any words on the screen.

The problem is sending mixed signals.

What are some other examples of difficult to use computer interfaces?

Multi-touch

From Scroll to Book

When you’re used to paper rolls it takes some time to convert to turn the pages of a book.
When Jeff Han (multi-touch guy) said the interface should just “disappear” he was referring to what?

A. A menu bar that auto-hides.
B. A keyboard that appears just when you need it.
C. An interface where the user doesn’t think about the interface and the computer just does what the user expects.
D. All of the A-C.
E. None of A-C.

When operating in a group, the robots

A. are being autonomous because they each follow their own program and are not controlled by a human.
B. are demonstrating a distributed algorithm because they each operate based on local sensor information rather than a central leader.
C. Both A and B.
D. Neither A nor B.

Andrew McAfee claims that technologies like Siri and Watson will improve according to Moore’s Law. He said in 6 years they won’t be 2 or 4 times better but 16 times better. This means that the period of Moore’s Law (the frequency at which technology doubles in power) as applied here is …

A. 1 year
B. 1.5 years
C. 2 years
D. 4 years
E. 6 years
The Year of the MOOC

“The shimmery hope is that free courses can bring the best education in the world to the most remote corners of the planet, help people in their careers, and expand intellectual and personal networks.”

Laura Pappano  
NY Times 11/2/2012

Wendy Brown on Online Education

“If this [student debt from courses they didn’t complete] is the source of revenue generation Edley’s proposal promises, we ought to ask: is this [online education] an ethically acceptable way to close UC’s funding gap?”

10/11/2010

Bold Experiment

“Giving away content free or cheaply on the Internet has already weakened the financial foundations of newspapers and magazines, postal mail, retail sales, bookstores, and movie distribution, and is now threatening book publishing. The university appears to be the next major institution that the Internet will transform.”

Beryl Benderly  
Prism 10/2012

The Year of the MOOC

“Dr. Stavens sees a day when MOOCs will disrupt how faculty are attracted, trained and paid, with the most popular ‘compensated like a TV actor or a movie actor.’”

Laura Pappano  
NY Times 11/2/2012

The Campus Tsunami

“Now online activity is at the core of how these schools [elite universities] envision their futures… What happened to the newspaper and magazine business is about to happen to higher education: a rescrambling around the Web.”

David Brooks  
NY Times 5/3/2012

The Coming Tsunami in Educational Technology

“Just as technology disrupted and transformed the newspaper and music industries, it is now poised to wreak havoc upon another established industry: higher education.”

Jack Rosenberger  
BLOG@CACM 7/23/2012  
Commenting on Stanford President John Hennessy’s address to the CRA’s 40th Anniversary Conference at Snowbird
The Campus Tsunami

“If a few star professors can lecture to millions, what happens to the rest of the faculty? Will academic standards be as rigorous? What happens to the students who don’t have enough intrinsic motivation to stay glued to their laptop hour after hour? How much communication is lost — gesture, mood, eye contact — when you are not actually in a room with a passionate teacher and students?”

David Brooks
NY Times 5/3/2012

Will M00Cs Destroy Academia?

“If I had my wish, I would wave a wand and make MOOCs disappear, but I am afraid that we have let the genie out of the bottle.”

Moshe Y. Vardi, Editor-in-chief CACM 11/2012

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• MOOC vs Book?
• Self forming communities
• data driven mode
  – what are common misconceptions
  – same wrong answer by many – targeted feedback
• Use tech to achieve 2 sigma results similar to one-on-one teaching

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