

Human-Computer Interaction

22C:196:003

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Syllabus

<http://www.cs.uiowa.edu/~hourcade/classes/fa06hci/syllabus.html>

Introductions

- Name
- Major
- Undergrad./Graduate
- How many years at the University?
- Favorite software/technology/gadget
- Reason for interest in HCI

Motivating examples

American Airlines Flight 965

- Crashed near Cali, Colombia in 1995
- Official cause: "pilot error"
- Real cause: poor design



American Airlines Flight 965

- Boeing 757 cockpit



American Airlines Flight 965

- Pilots manually navigate only during takeoff, landing, inclement weather, emergencies.
- Navigate by traveling between beacons
- Flight management system



American Airlines Flight 965

- Most common way to navigate to next beacon
 - Enter first letter of beacon
- To navigate to “Roza” beacon
 - Pilots enter “R” on flight management system
- Plane navigates towards “Romeo” beacon
- Flight management system does not provide feedback on chosen beacon



American Airlines Flight 965

- Plane headed in the wrong direction, eventually crashing on a mountain
- Speed brakes not disengaged when trying to accelerate

<http://sunnyday.mit.edu/accidents/calirep.html>



American Airlines Flight 965

- Lessons
 - Expert users make mistakes
 - Feedback
 - Consistency
 - System state needs to match state expected by users



Mizuho Securities Stock Sale

- Software used to trade in Tokyo Stock Exchange
- Trader for Mizuho tried to sell
 - 1 share of J-Com for 610,000 yen
- Instead he sold
 - 610,000 shares of J-Com for 1 yen each
- Software warned him, but he ignored warning
- Attempted to undo, but it was not possible



Mizuho Securities Stock Sale

- Confidence in Tokyo Stock Exchange damaged
- Shares in NTT, rival of software maker, jumped 11%
- \$331,000,000 loss from trade for Mizuho

<http://news.bbc.co.uk/2/hi/business/4512962.stm>



Google

- Simple interface to access very powerful technology
- No Boolean logic
- Helps you notice and remediate typos