Fundamentals of Situated Interaction

Wendy Mackay & Michel Beaudouin-Lafon
7 January 2021

mackay@lri.fr  mbl@lri.fr
Course Information
Discovering the principles of situated interaction:
  Instrumental Interaction
  Reification
  Polymorphism
  Reuse
Substrates

Human-computer partnerships
  (Reciprocal co-adaptation)
Class activities

Lectures on key concepts (Michel & Wendy)

Exercises: Generative Deconstruction (All)
  Deconstruct systems
  Generate novel design ideas

Seminar presentations (Students)
  Read 2 related papers (solo)
  Create 1 iMuseum exhibit (pair)
  Lead group discussion (all)
Grades

Exercises and Class participation = 30% (individual)

iMuseum entries = 30% (individual)

iMuseum exhibit & class discussion = 40% (pair)
Who are we?

Wendy MACKAY  
Research Director, Inria  
Head of ExSitu research lab at Inria

Michel BEAUDOUIN-LAFON  
Professor, Univ. Paris-Saclay  
Former head of Computer Science Department, member of ExSitu

Focus on Human-Computer Interaction  
to augment human capabilities  
to generate novel forms of interaction  
to explore the next generation of interactive systems
ex situ

Interaction paradigms

Participatory design

Distributed communication

Engineering platforms
If computer capacity and functionality are increasing
If computer capacity and functionality are increasing

... human capabilities are not
We face a major design trade-off

Power vs. Simplicity

How to balance the trade-offs?

- simplicity of execution
- power of expression
Power vs. Simplicity

Research challenge:
How to shift the curve?

Simple things should be simple,
Complex things should be possible