

CMSC 434
Introduction to
Human Computer Interaction

François Guimbretière
CSIC 1121 Mon-Wed 2:00-3:15

CMSC 434 Administrivia

- Instructor
 - François Guimbretière (HICL)
 - *Office hours (Room 3267 AVW):*
 - Mon, Wed 10:00am – 11:00am
 - or by email any time: francois@cs.umd.edu
 - or by appointment
 - drop in/telephone discouraged
- TA
 - Alex Quinn
 - *Office hours (Room 1112)*
 - Tues, Thur 3:30 to 4:30pm
 - aq@cs.umd.edu
 - *Study session*
 - Thursday at 11am

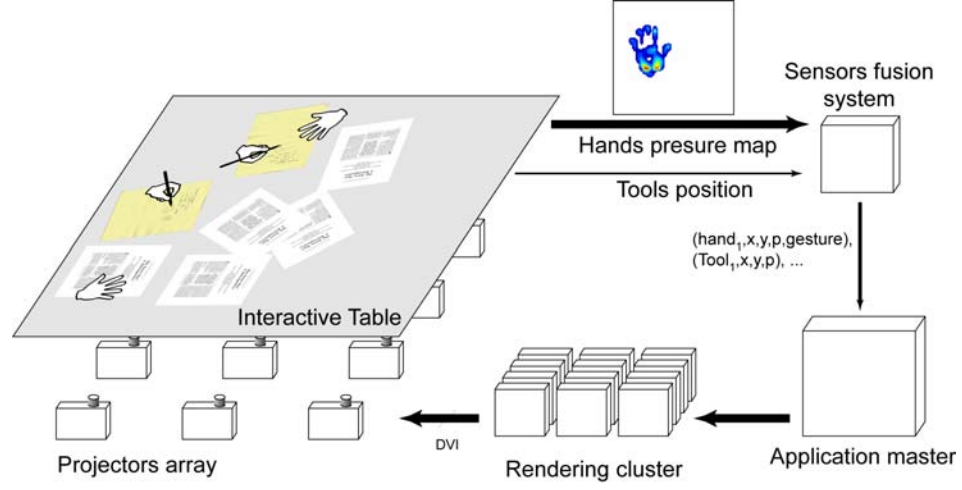
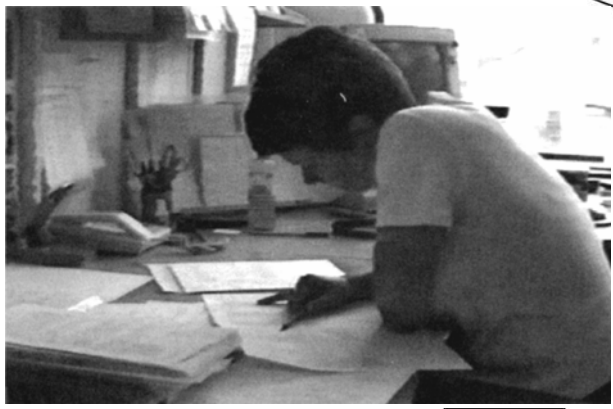
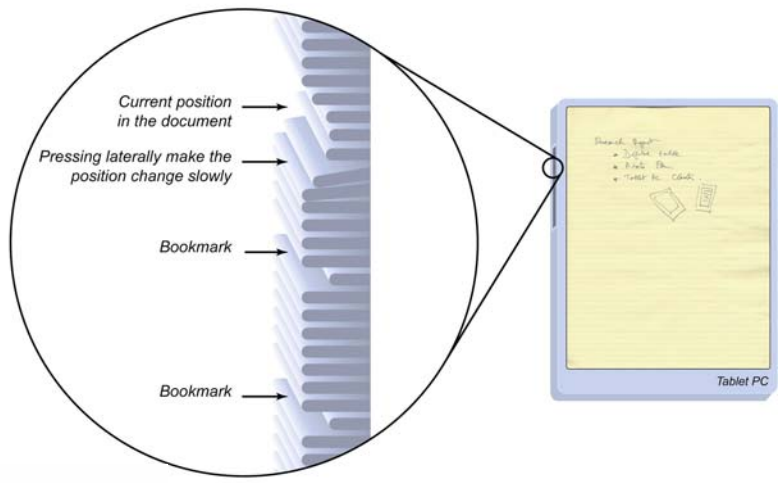
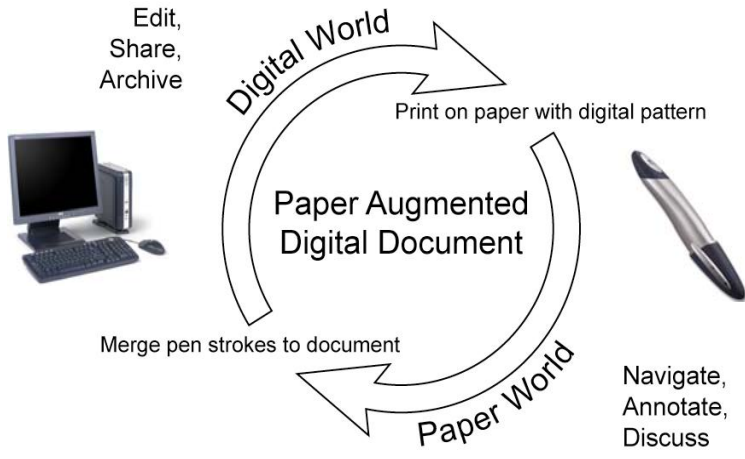
My research interests

- Human Computer Interaction
 - People, Paper and Computer
 - Better interaction techniques and command mechanisms
- Information Visualization
 - How to study very large trees
- Let me know if you are interested in participating in research project

People, Paper and Computers

How can we narrow the bridge between paper and computer?





PADD

Edit,
Share,
Archive

Digital World

Print on paper with digital pattern

Paper Augmented
Digital Document

Merge pen strokes to document

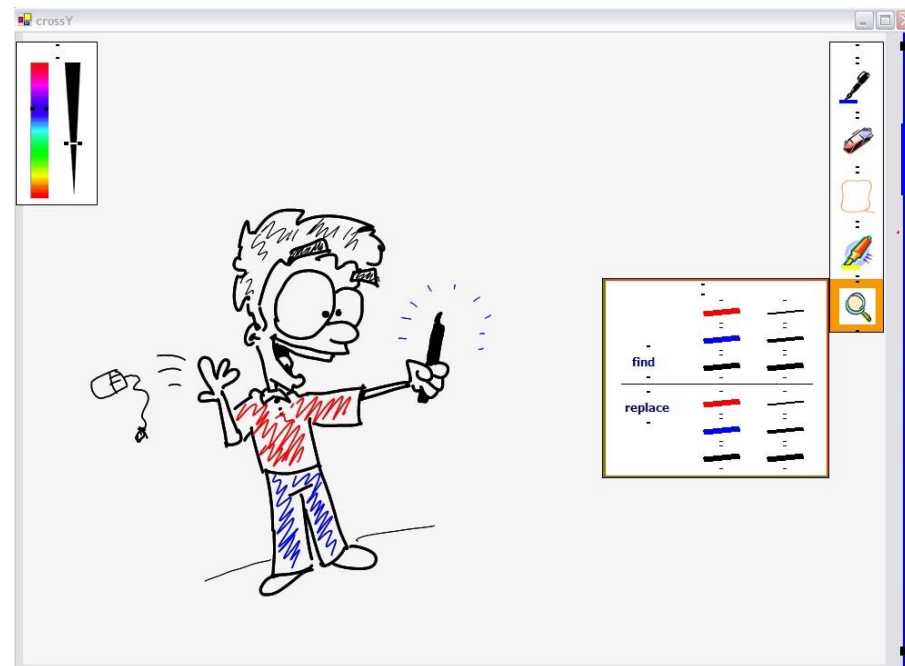
Paper World

Navigate,
Annotate,
Discuss



CrossY

- Tool to explore crossing based interfaces



Computer interaction today



- fixed environment, stable
- indirect interaction
- precise aiming easy

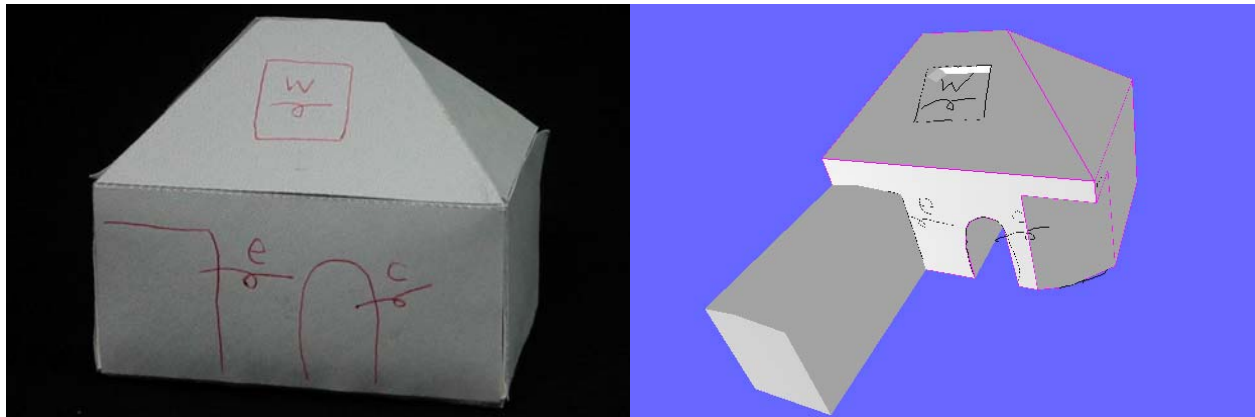
Soon on your lap



- portable, unstable environment
- direct interaction
- low precision aiming

Rapid prototyping and hardware design

- Lab:
 - 3D printer: Z corp Z310
 - Laser cutter
 - Testing equipment
- Research project
 - 3D annotations and editions



Student info

- Name, e-mail
- Are you taking the class for credit?
- Why are you taking the class?
 - Goals
 - Topics you would like to be covered in the class
- Do you own (or have access to)
 - A car radio, a cell phone, a MP3 player, a remote control
 - A digital camera
- Additional comments
 - Do you have a job?
 - Are you taking another project class?

HCI

Human – Computer – Interaction

HCI

Human – Computer – Interaction

ACM definition:

A discipline concerned with the

design,

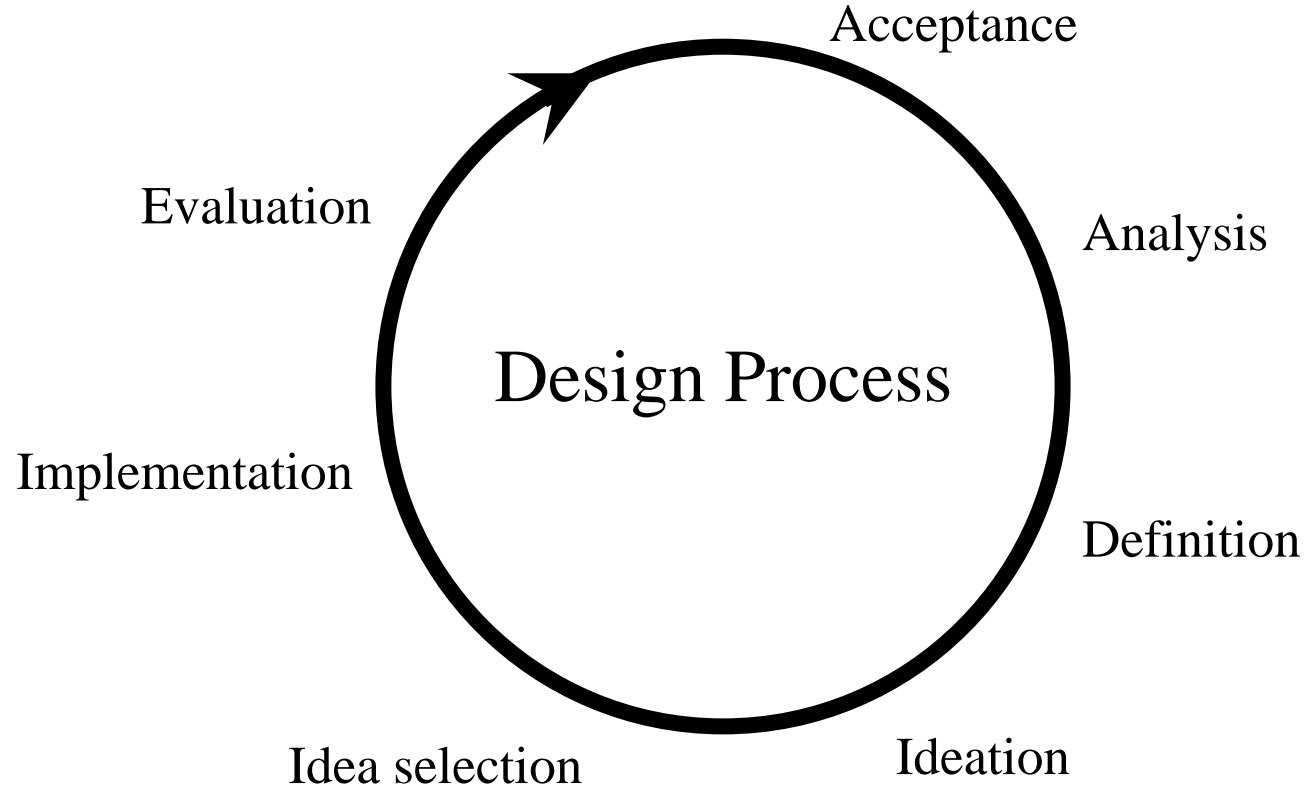
implementation, and

evaluation

of interactive computing systems for human use.

PCD?

- People – Computer – Design (Winograd)
- “The universal traveler” (Koberg & Bagnall)



What you will learn

- Principle of design
 - How to identify needs
 - How to create/imagine possible solutions
 - How to select and implement a solution
 - How to evaluate the result
- Basic human factors
 - Characteristic of the human information processor
- Basic interface technology
 - Hardware
 - Software

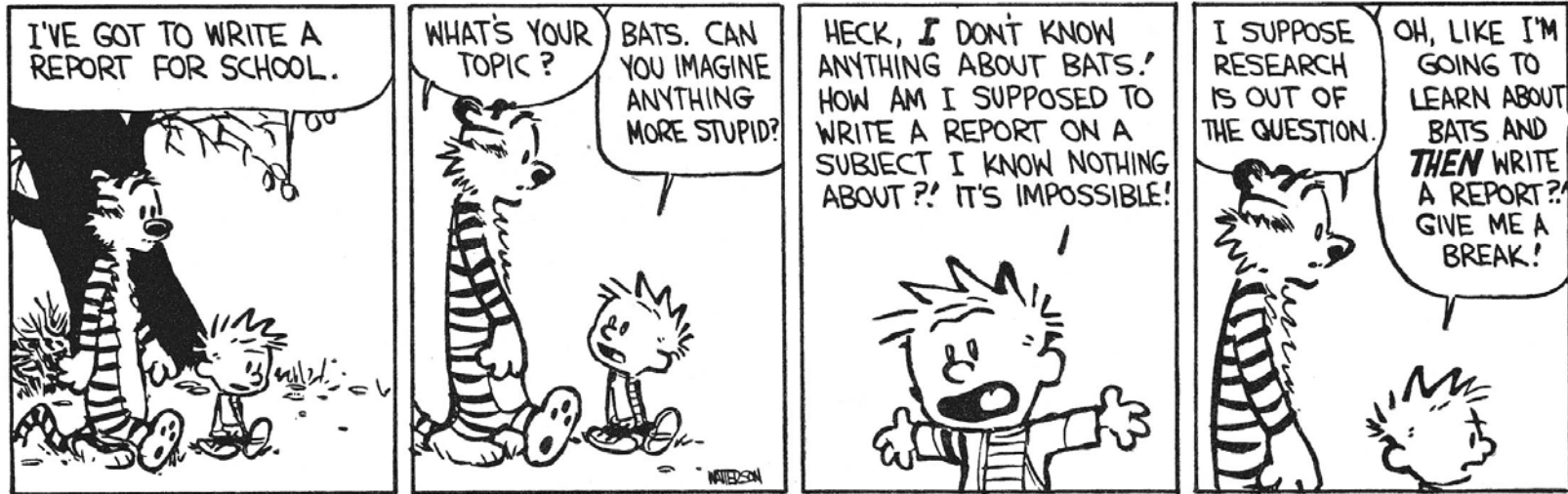
Text and additional references

- Book
 - Universal Principles of Design, Lidwell, Holden and Butler [Rockport], 1998.
- Reader
 - Online with link from the web page
 - Password: **xxxxxxxx**
- Course web sites:
 - <http://www.cs.umd.edu/class/fall2007/cmsc434>

Work load

- Reading
 - A chapter a class
- Homework
 - 8 homework (~1 week each)
 - By yourself
- Projects
 - 1 projects, 4 phases (3 weeks each)
 - In groups of 2-3 people
 - Deadline to pick your project: 09/12/07
- Late assignments policy
 - -20% up to 24 hours late
 - -50% up to 48 hours late
 - -100% after that

Work load



How you will be evaluated

- Homeworks (20%)
- Projects (40%)
 - Step 1-4, 10% each
- Exams (30%)
 - mid-term (10%)
 - final (20%)
- Class Participation (10%)

*You must pass both exam components
and
project components to pass the course*

Academic honesty

- Projects are group assignments
 - Each member should carry his/her load
 - Discussing with other group in general term is OK
 - Copying (verbatim or not) is not
- Homeworks are individual assignments
 - Discussing with other students in general term is OK
 - Copying (verbatim or not) is not
- Exams are individual works
 - No communication at all between students
- Violation of course (or University academic honesty) rules
 - Hearing with the judicial program

Human versus Machine

Human traits Computer traits

Human versus Machine

Human traits	Computer traits
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Incredibly slow	Incredibly fast
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Error-prone	Error free
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Irrational	Deterministic
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Emotional	Apathetic
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Inferential	Literal
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Random	Sequential
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Unpredictable	Predictable
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Ethical	Amoral
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Intelligent	Stupid
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(from *The Inmates are running the asylum* by Alan Cooper)

Reading for Next Week

- Psychopathology of everyday things
- The perfect brainstorm
 - Please check the questions posted online for each reading
 - I will ask similar question in class