

CMSC 434/828S
Introduction to
Human Computer Interaction

François Guimbretière
CSIC 1121 Tue-Thu 3:30-4:45

CMSC 434/828S Administrvia

- Instructor
 - François Guimbretière (HICL)
 - *Office hours (Room 3267 AVW):*
 - Tue-Thu 2:00pm – 3:00pm
 - or by email any time: francois@cs.umd.edu
 - or by appointment
 - drop in/telephone discouraged
- TA
 - Tamer Elsharnouby
 - *Office hours (Room 1112 AVW)*
 - Mon-Wed 11:00am-12:00pm
 - sharno@cs.umd.edu

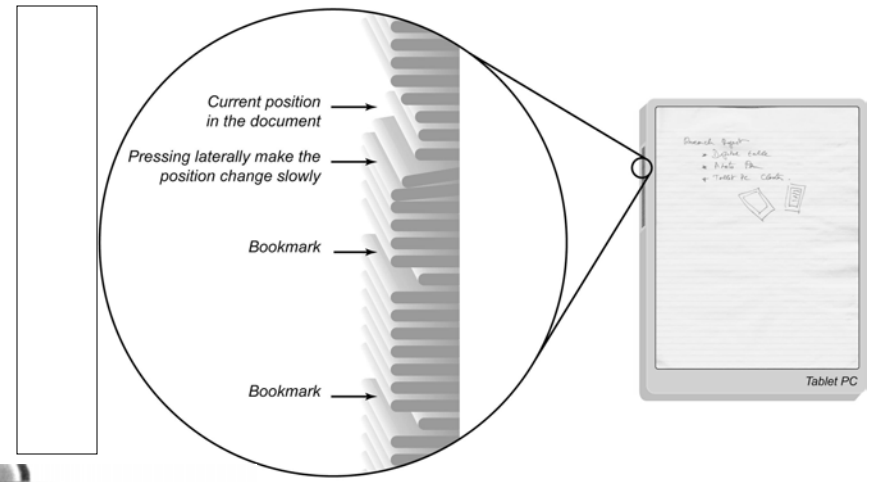
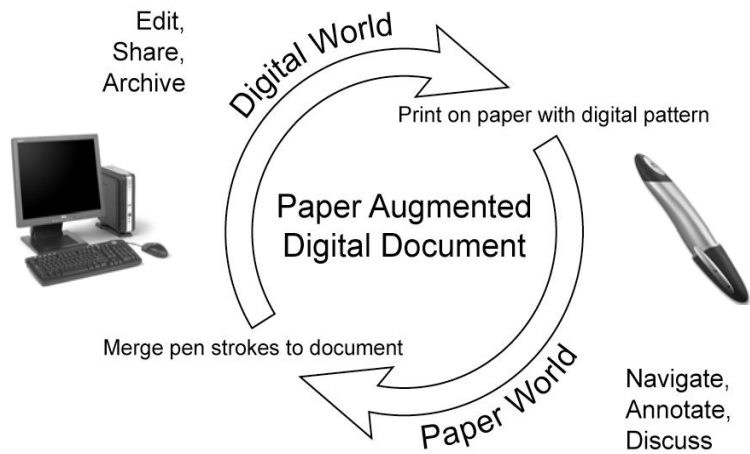
My research interests

- Human Computer Interaction
 - People, Paper and computer
 - better interaction techniques and command mechanisms
- Information Visualization
 - How to study very large trees

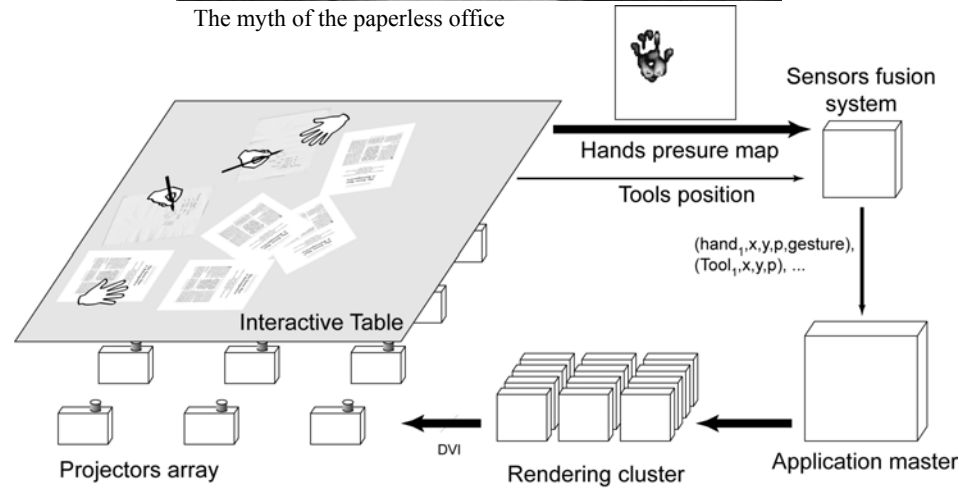
People, Paper and Computers

How can we narrow the bridge between paper and computer?

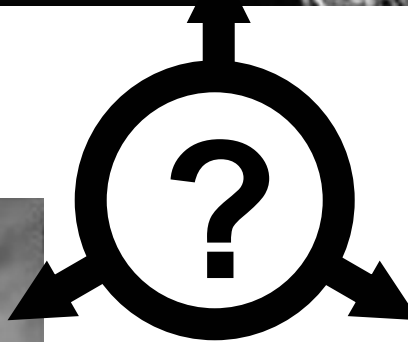




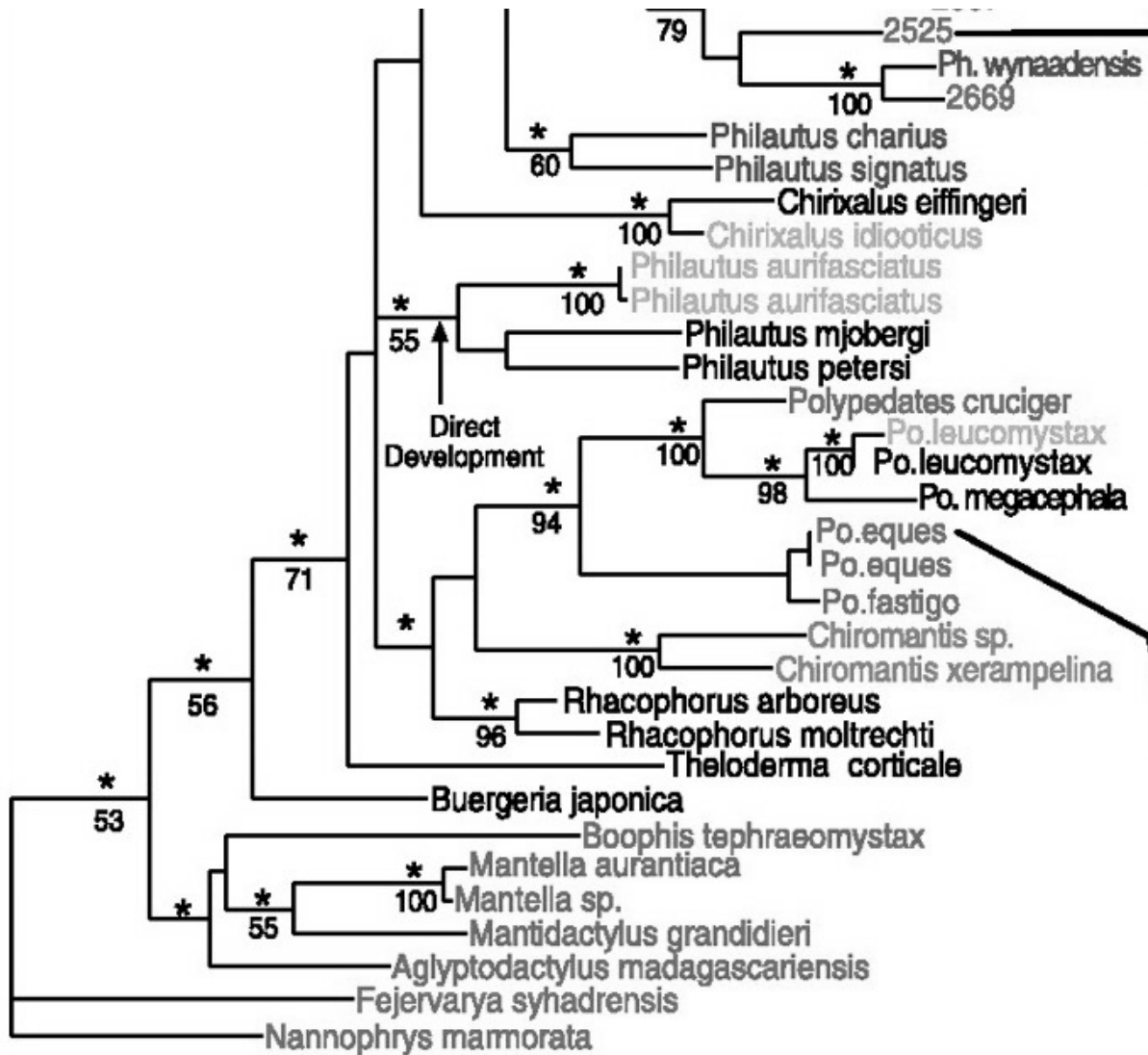
The myth of the paperless office



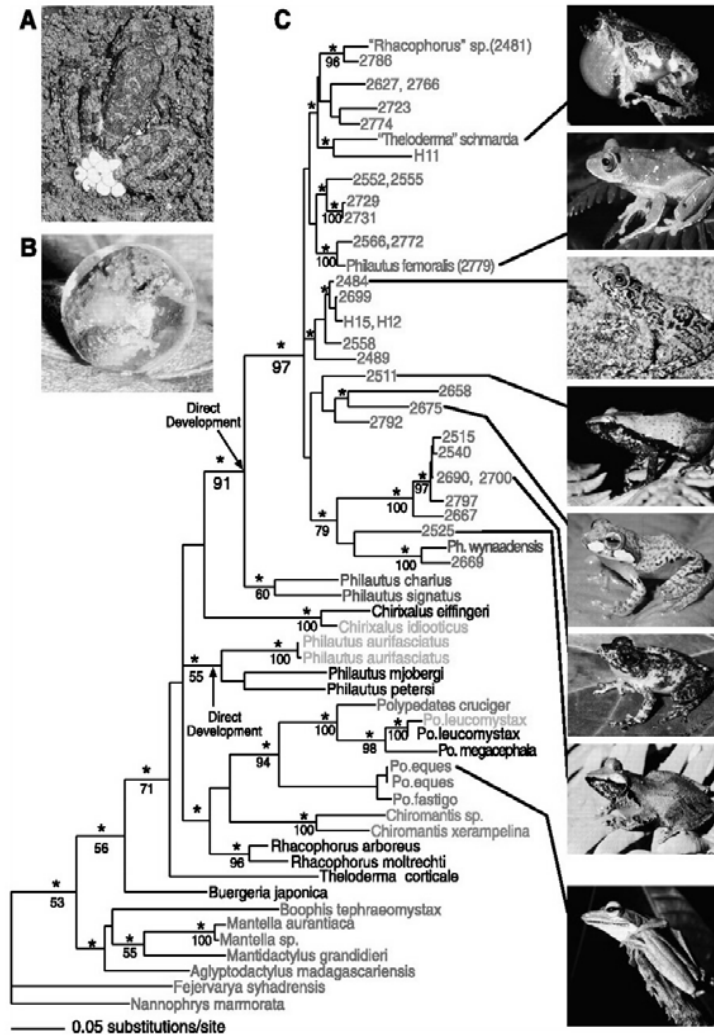
Inferring species relationships



Phylogenetic tree

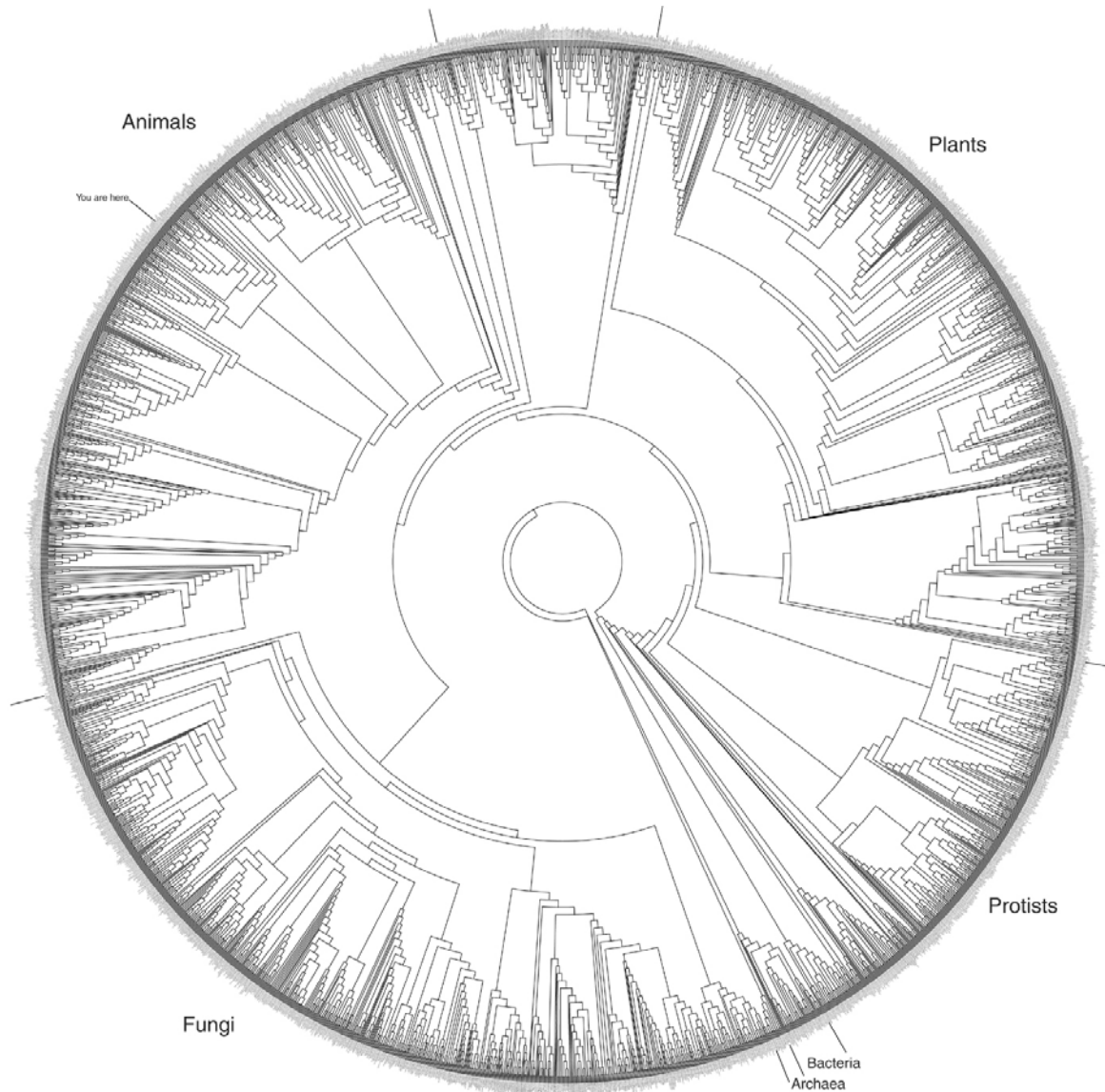


Phylogenetic tree



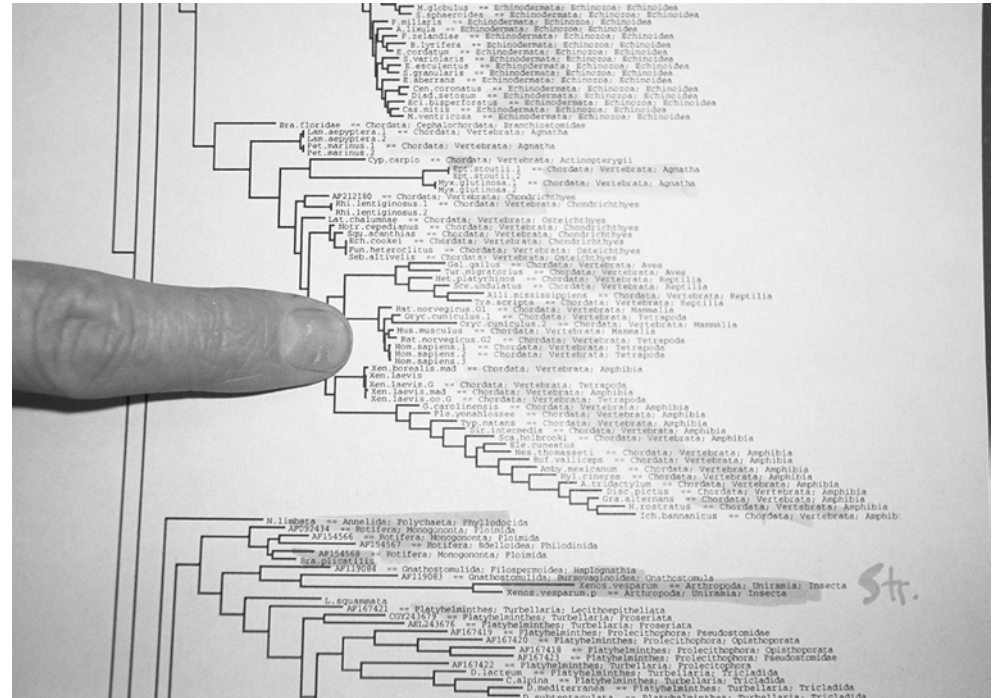
M Meegaskumbura et al., Science 298:379 (2002)

Building the tree of Life: 10M species



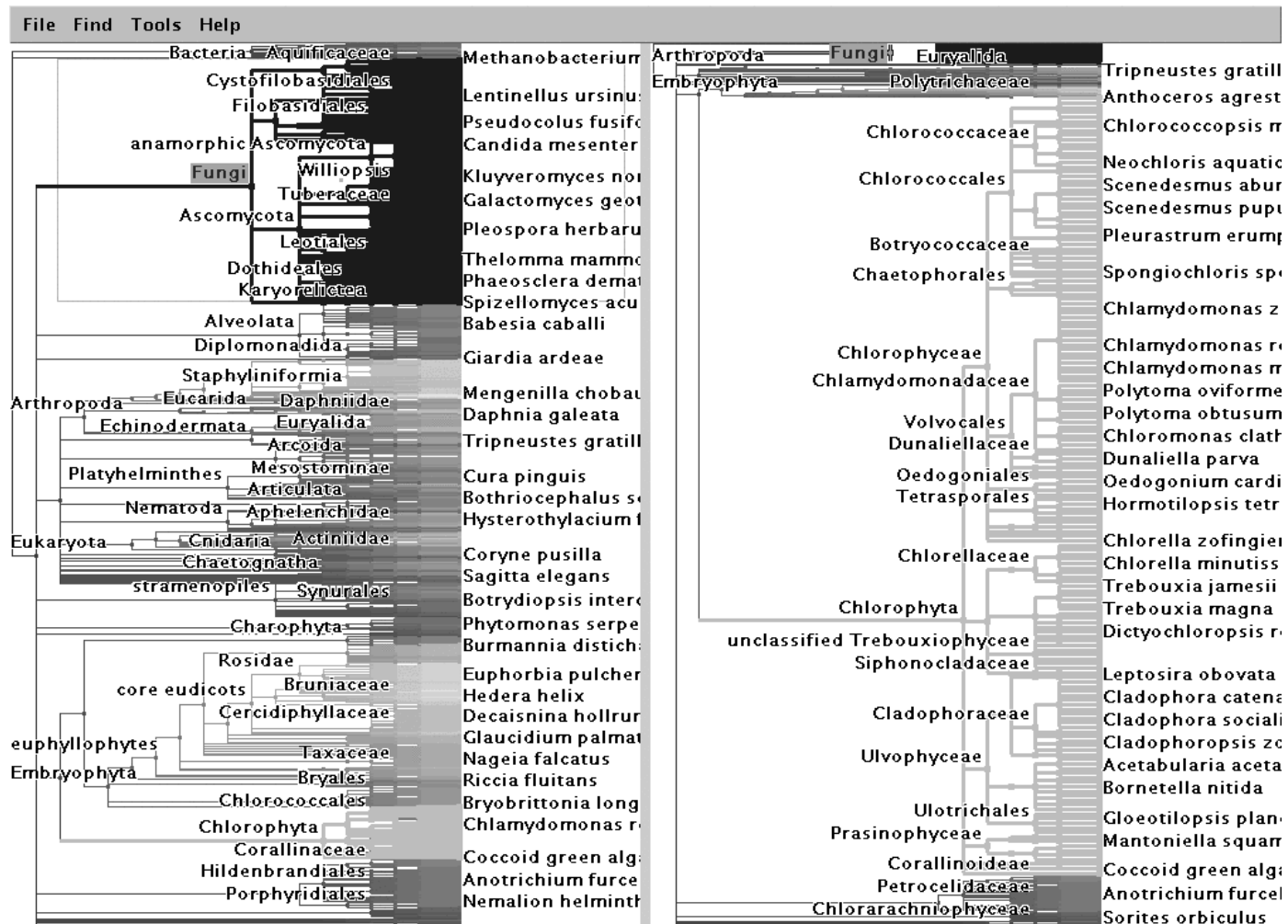
David Hillis, Science 300:1687 (2003)

Current approach



TreeJuxtaposer

Tamara Munzner, François Guimbretière
Serdar Tasiran, Li Zhang, Yunhong Zhou



Student info

- Name, e-mail
- Are you taking the class for credit?
 - 434 or 828s?
 - Comps?
- 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

HCI

Human – Computer – Interaction

HCI

Human – Computer – Interaction

ACM definition:

A discipline concerned with the

design,

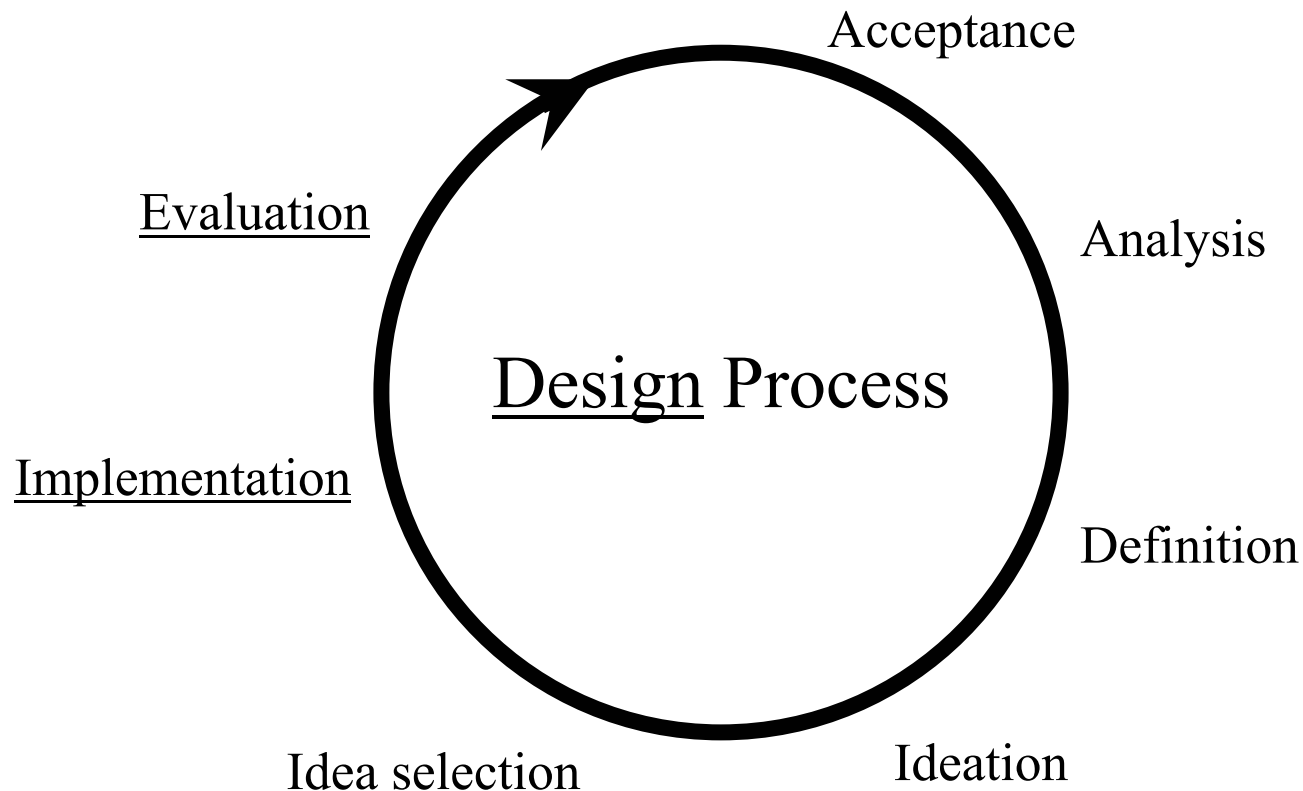
implementation, and

evaluation

of interactive computing systems for human use.

PCD?

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



What you will learn

- Basic human factors
 - Characteristic of the human information processor
- Basic interface technology
 - Hardware
 - Software
- 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

Work load

- Reading
 - A chapter a class
- Homework
 - 8 homework (~1 week each)
 - By yourself
- Projects
 - 4 projects (3 weeks each)
 - In groups of 3-4 people (434), 1-2 people (828S)
 - Deadline to pick your project: 09-11-03
- Late assignments policy
 - -20% up to 24 hours late
 - -50% up to 48 hours late
 - -100% after that

How you will be evaluated

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

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

Academic honesty

- Projects are group assignments
 - Each member should carry his/her load
 - Discussing with other group is OK
 - Copying (verbatim or not) is not
- Homeworks are individual assignments
 - Discussing with other students 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
 - F for the course
 - Hearing with the judicial program

CMSC 828S

- All 828S students
 - Will work in group among themselves
 - Will be graded compared with other 828S students
- 828S projects geared toward research
 - More comprehensive assignments
- Midterm + exam counts as comp in PL/SE

Text and additional references

- Required text
 - ***Designing the User Interface: Strategies for Effective Human-Computer Interaction, 3rd Edition***, Shneiderman [Addison-Wesley], 1998.
- Recommended text
 - ***Bringing Design to software***, Winograd (Editor) [Addison-Wesley], 1996.
- Course web sites:
 - <http://www.cs.umd.edu/~cmisc434-0201>
- Course WIKI:
 - <http://jazz.cs.umd.edu:8080/cmisc434/>

Human versus Machine

Human traits Computer traits

Human versus Machine

Human traits	Computer traits
Incredibly slow	Incredibly fast
Error-prone	Error free
Irrational	Deterministic
Emotional	Apathetic
Inferential	Literal
Random	Sequential
Unpredictable	Predictable
Ethical	Amoral
Intelligent	Stupid

(from *The Inmates are running the asylum* by Alan Cooper)

Reading for Next Week

- Shneiderman Chapter 1
- Psychopathology of everyday things (handout)
- The perfect brainstorm (handout)
- Homework 0