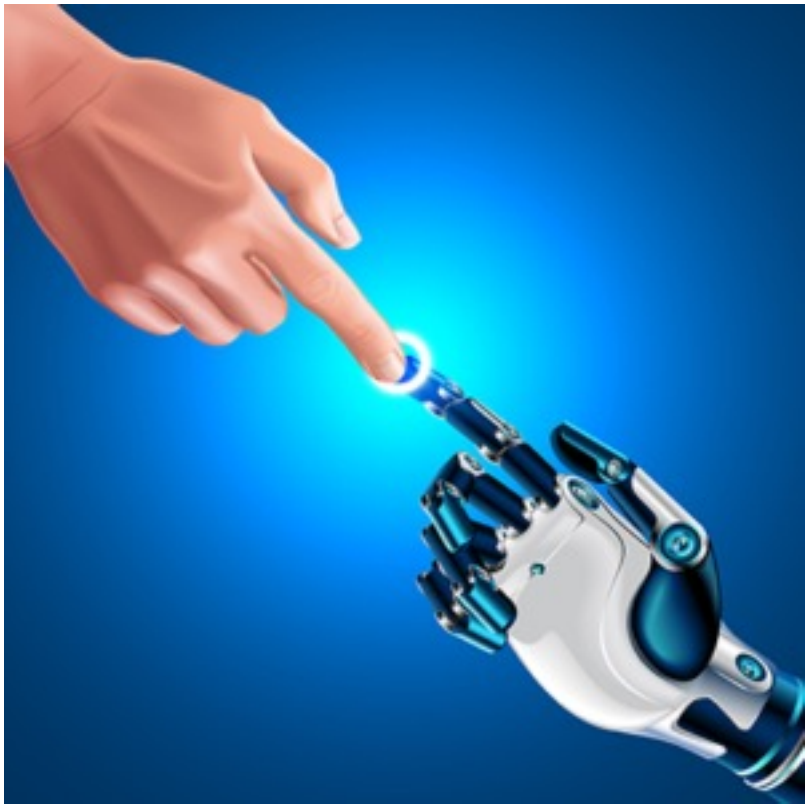
HUMAN COMPUTER INTERACTION



KASSYMOVA AIZHAN BAKHYTZHANOVNA,
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COURSE POLICIES AND EXPECTATIONS

CLASS RULES

Respect the learning environment:

Come to class on time and prepared to discuss the assigned reading.

COURSE POLICIES AND EXPECTATIONS
CLASS RULES

Do not distract the class with excessive private conversations.

COURSE POLICIES AND EXPECTATIONS
CLASS RULES

Turn off all mobile devices.

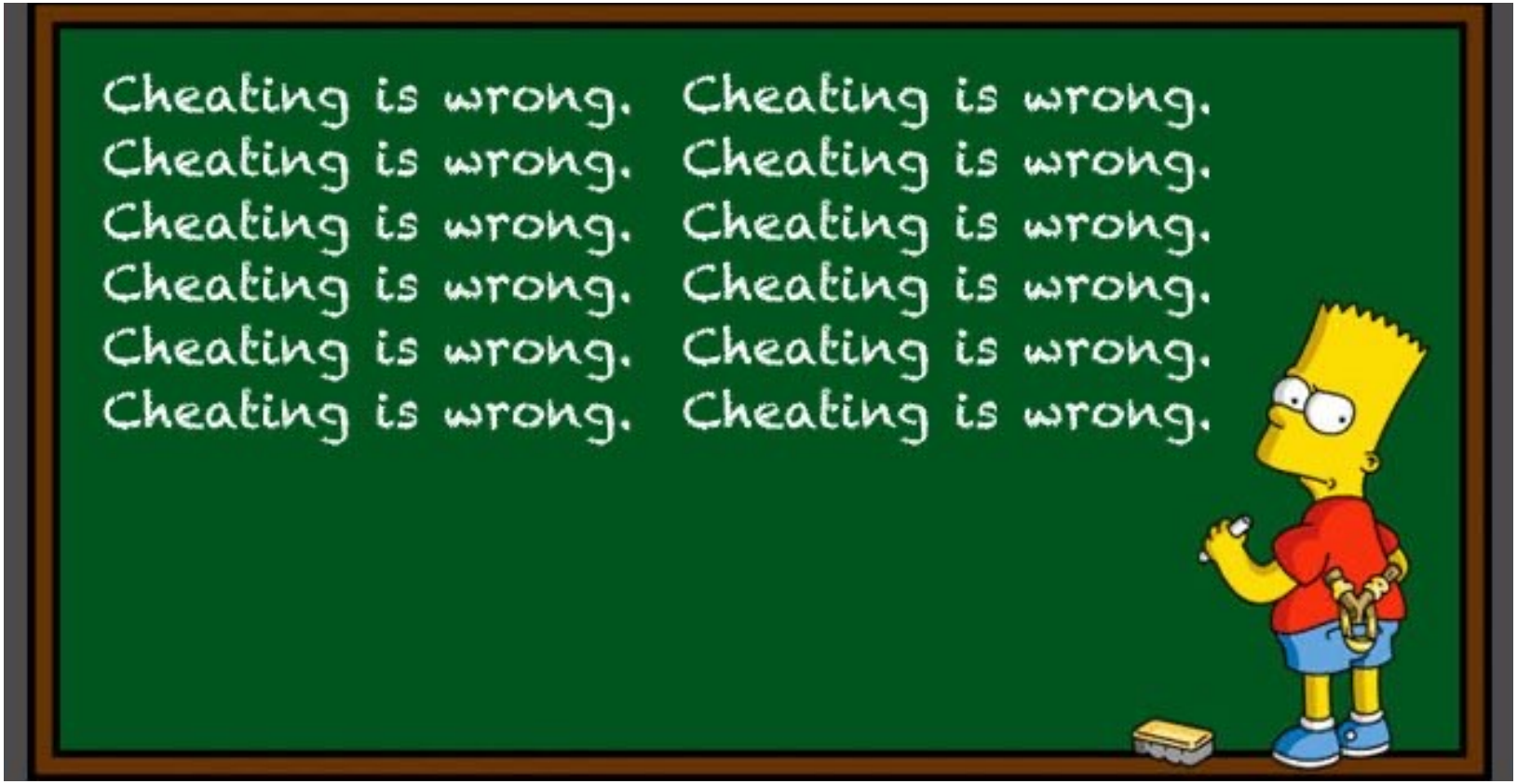
COURSE POLICIES AND EXPECTATIONS
CLASS RULES

Use the lab computers in the room for exercises only.

COURSE POLICIES AND EXPECTATIONS
CLASS RULES

Bring paper and pens/pencils.

COLLABORATION AND ACADEMIC INTEGRITY



GOOD
LUCK!

LESSON GOALS

- You will understand what HCI is and where it came from.
- You will understand the difference between HCI and similar fields like UI design, UX design, Human Factors engineering, etc.
- You will understand that HCI involves twin disciplines: industry and research.
- You will understand some of the basics of design thinking.

LESSON OUTCOMES

- **You will be able to describe HCI as a discipline, including its research and design topics.**
- **You will be able to connect HCI to related fields.**

LESSON PLAN

- You will start by being introduced to the general field of human-computer interaction, including how we define people, computers, and the interactions between them.
- You will then be introduced to HCI's role in a broader hierarchy of disciplines, such as psychology, human factors, and UI design.
- Finally, you will be introduced to HCI as it is defined for this class: research and design.

HUMANS

Feeling

Seeing

Hearing

HUMANS

KNOWLEDGE

EXPERIENCE

SKILLLS

HUMANS

COMPUTERS

COMPUTERS

COMPUTERS

COMPUTERS

53
NAVIGATION
NAVI
01
02
03
NAVIGATION SYSTEMS
OF LOREM IPSUM
LOREM STREET

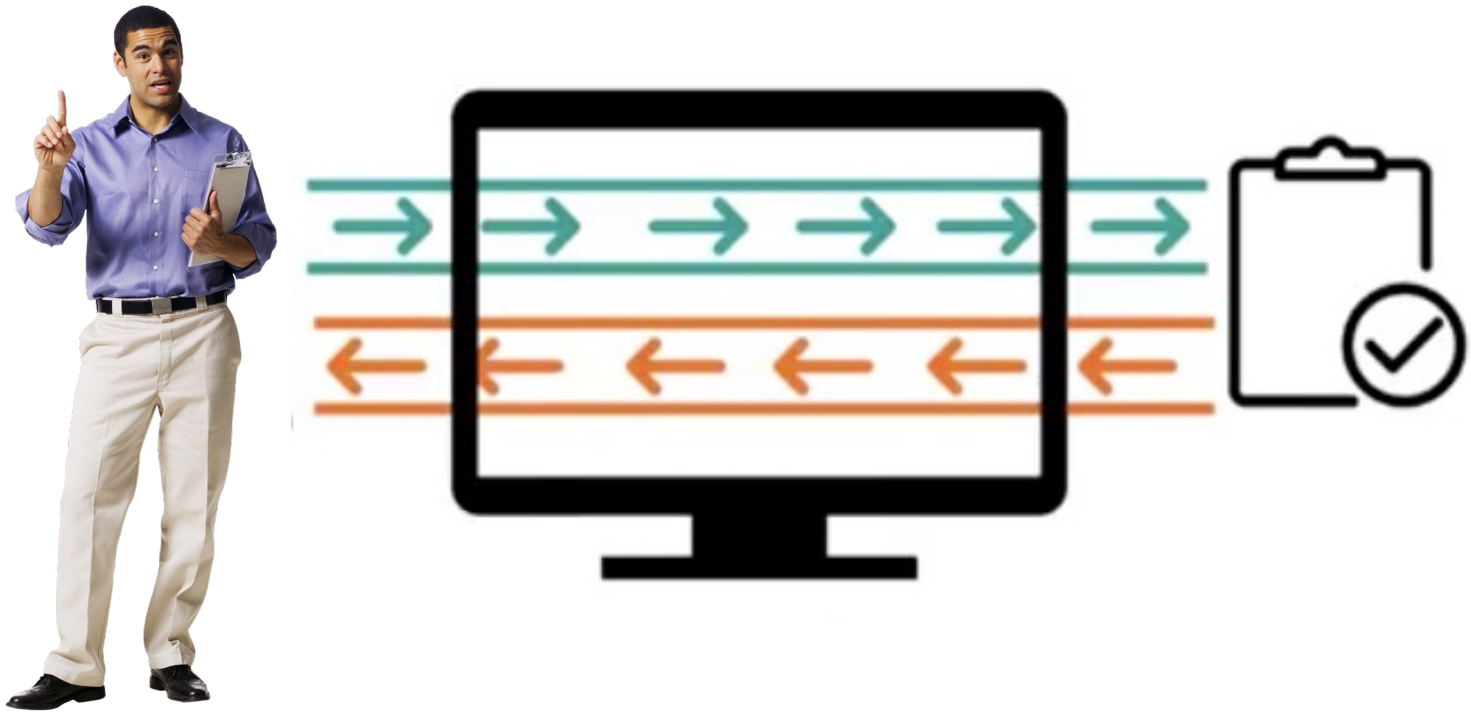
COMPUTERS

COMPUTERS

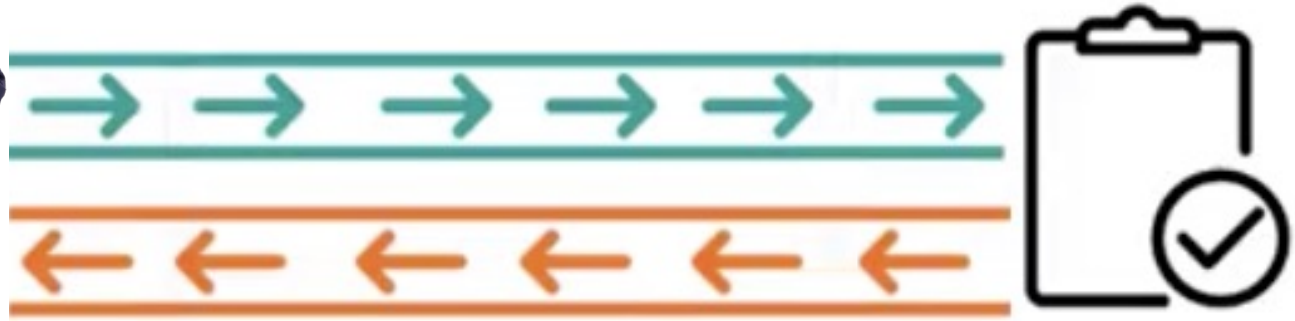
10:25AM
Filter - Criteria
Apps (18)
Source
iTunes
Private
Status
Pending Update
Pending Install
Installing
Installed
Categories
Book
Business
Photo & Video
Productivity
Adobe Photoshop Express
Avaya one-XÂ® Mobile SIP
Cisco AnyConnect
Concur - Business Travel ...
iBooks
JIRA on-the-go
mobilEncrypt Endpoint
PDF Reader Lite
Printer Pro Lite
RedLaser - Barcode Scann...
Skype for iPad
WebEx for iPad
WordPress
Yahoo! Messenger - free S...
Apps (6)
My Climate
TD (Canada)
ACME ERP
Google+
Amazon Mobile
Cisco AnyConnect
RedLaser - Barcode

INTERACTION

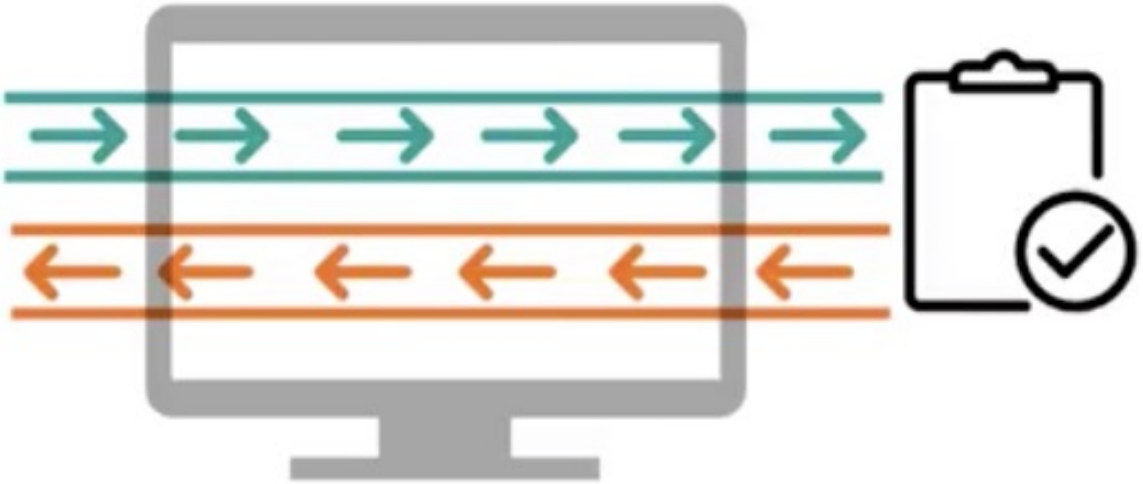
INTERACTION



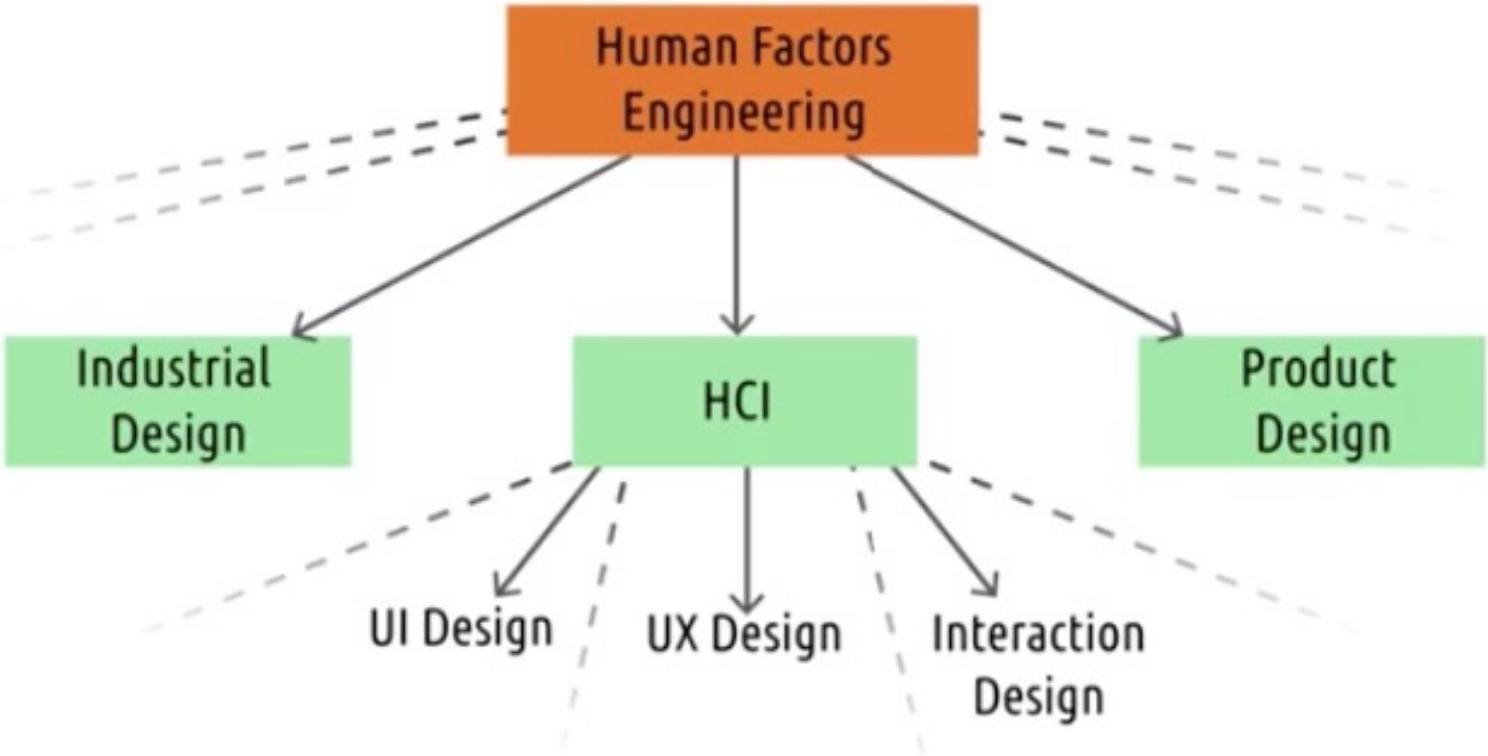
INTERACTION



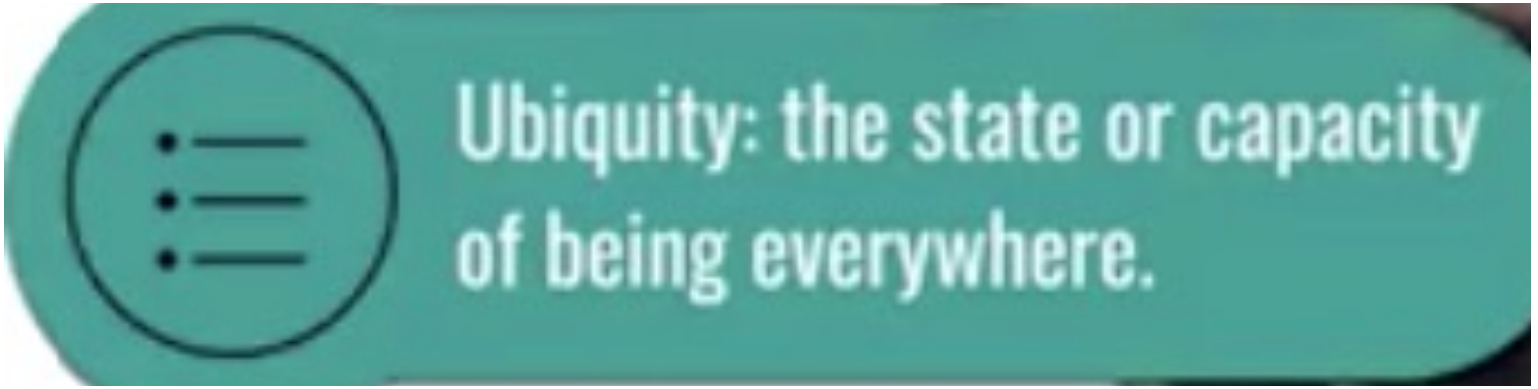
INTERACTION



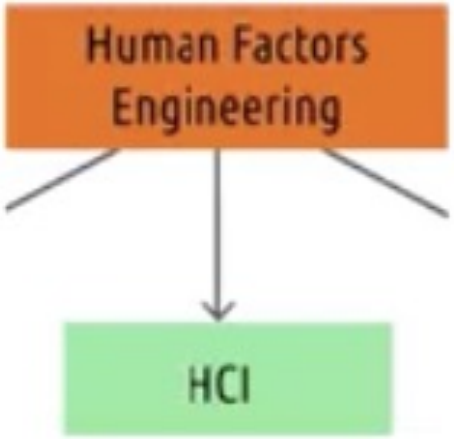
THE HCI SPACE



HCI IN THE BIG PICTURE



HCI VS HUMAN FACTORS

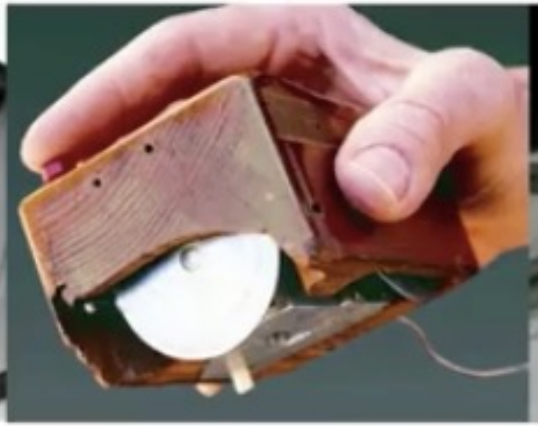


Human Factors Engineering: designing interactions between people and products, systems, or devices

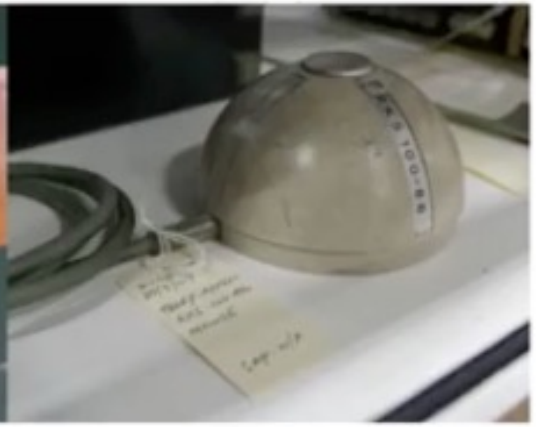
HCI VS HUMAN FACTORS

HCI VS USER INTERFACE DESIGN

Original Light Pen

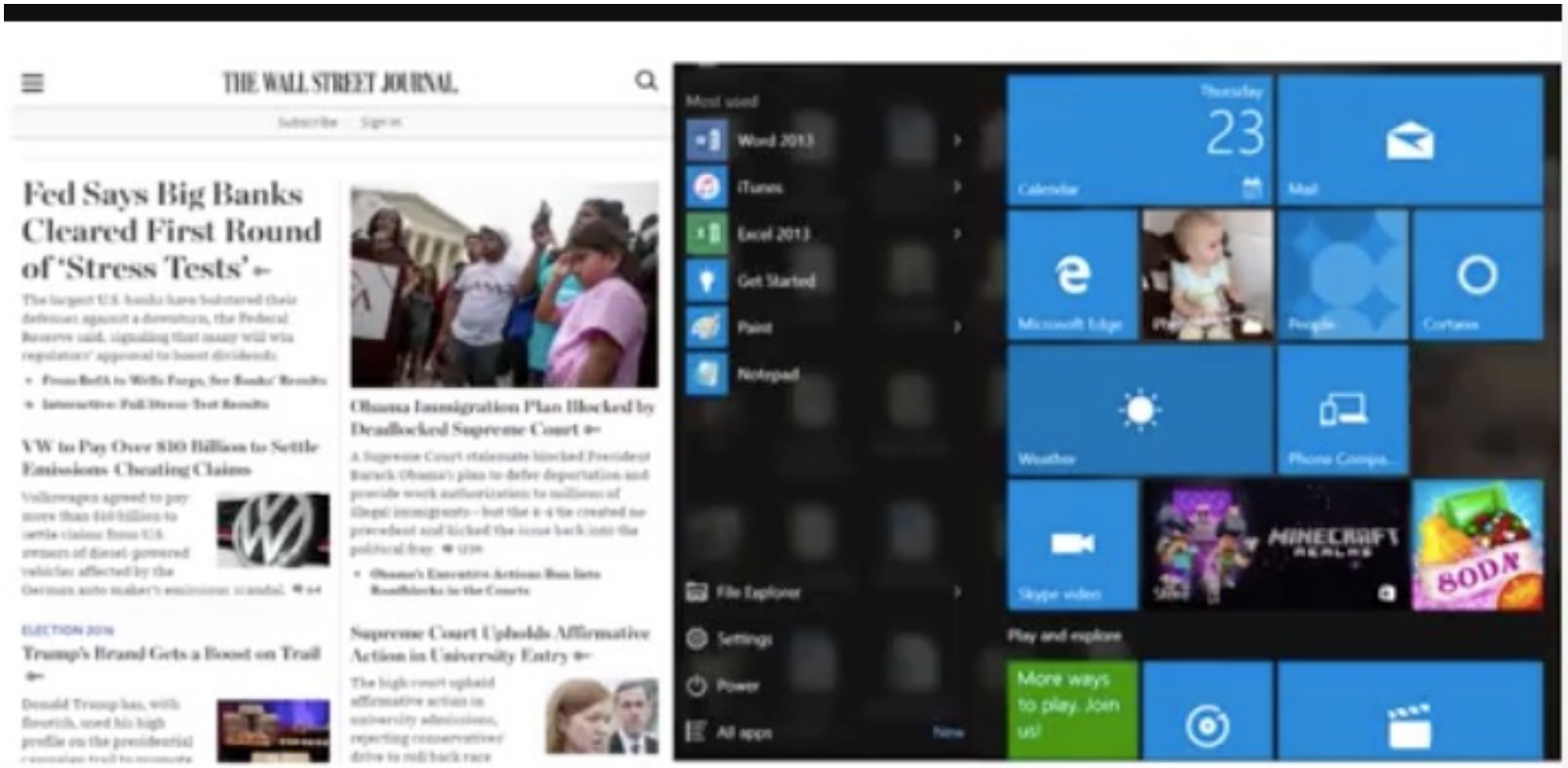


First Computer Mouse

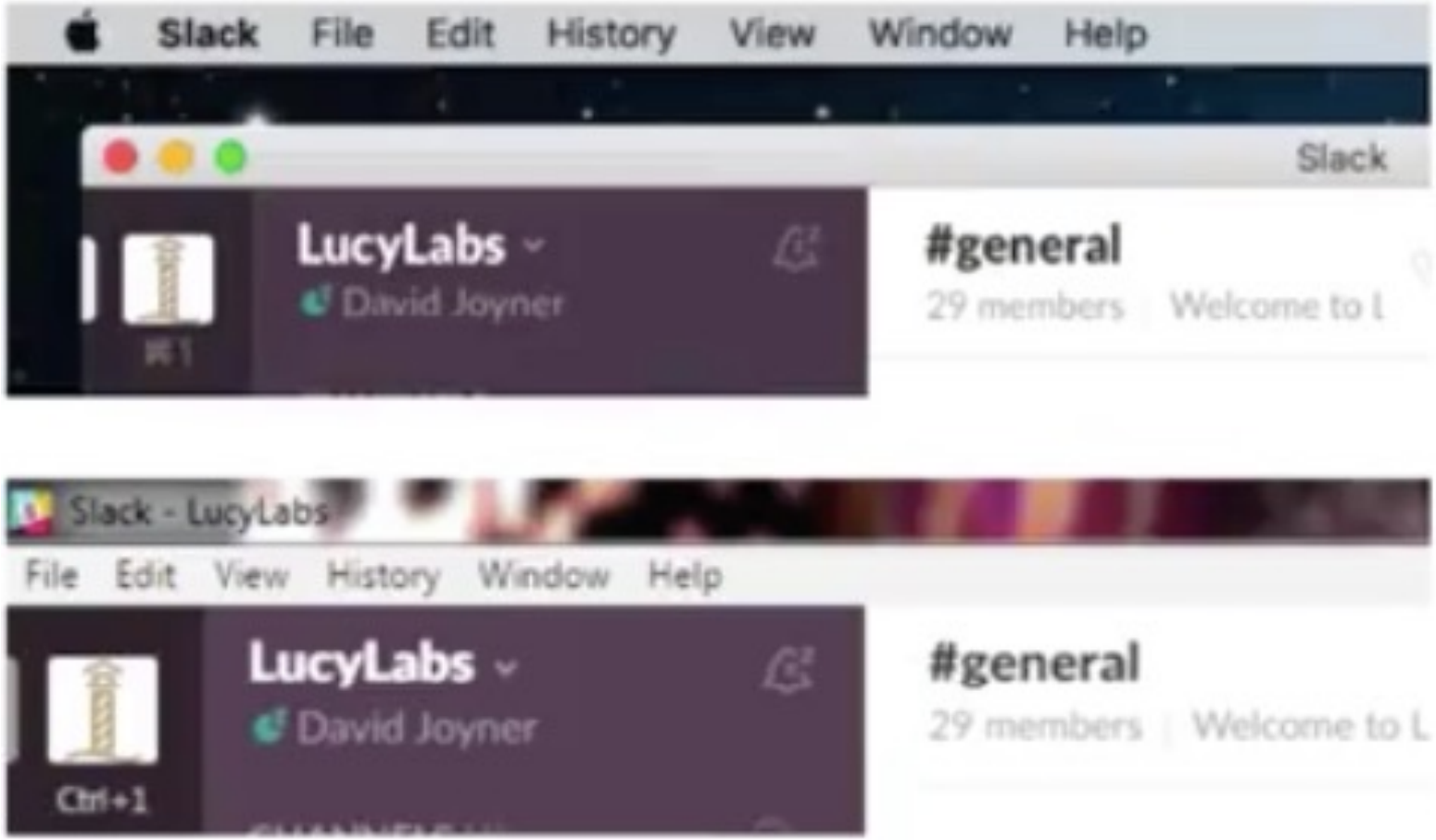


First Rollerball Mouse

HCI VS USER INTERFACE DESIGN

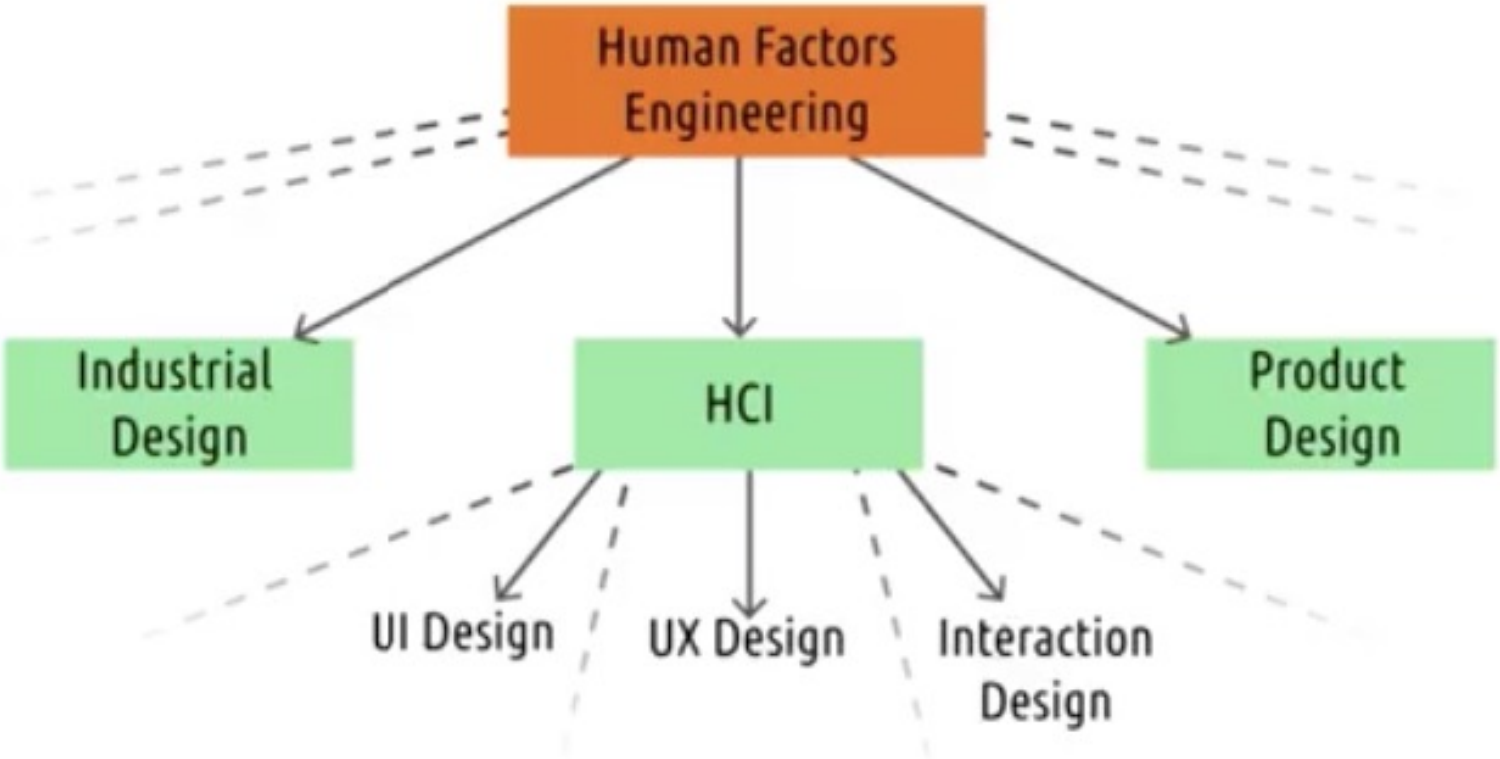


HCI VS USER INTERFACE DESIGN

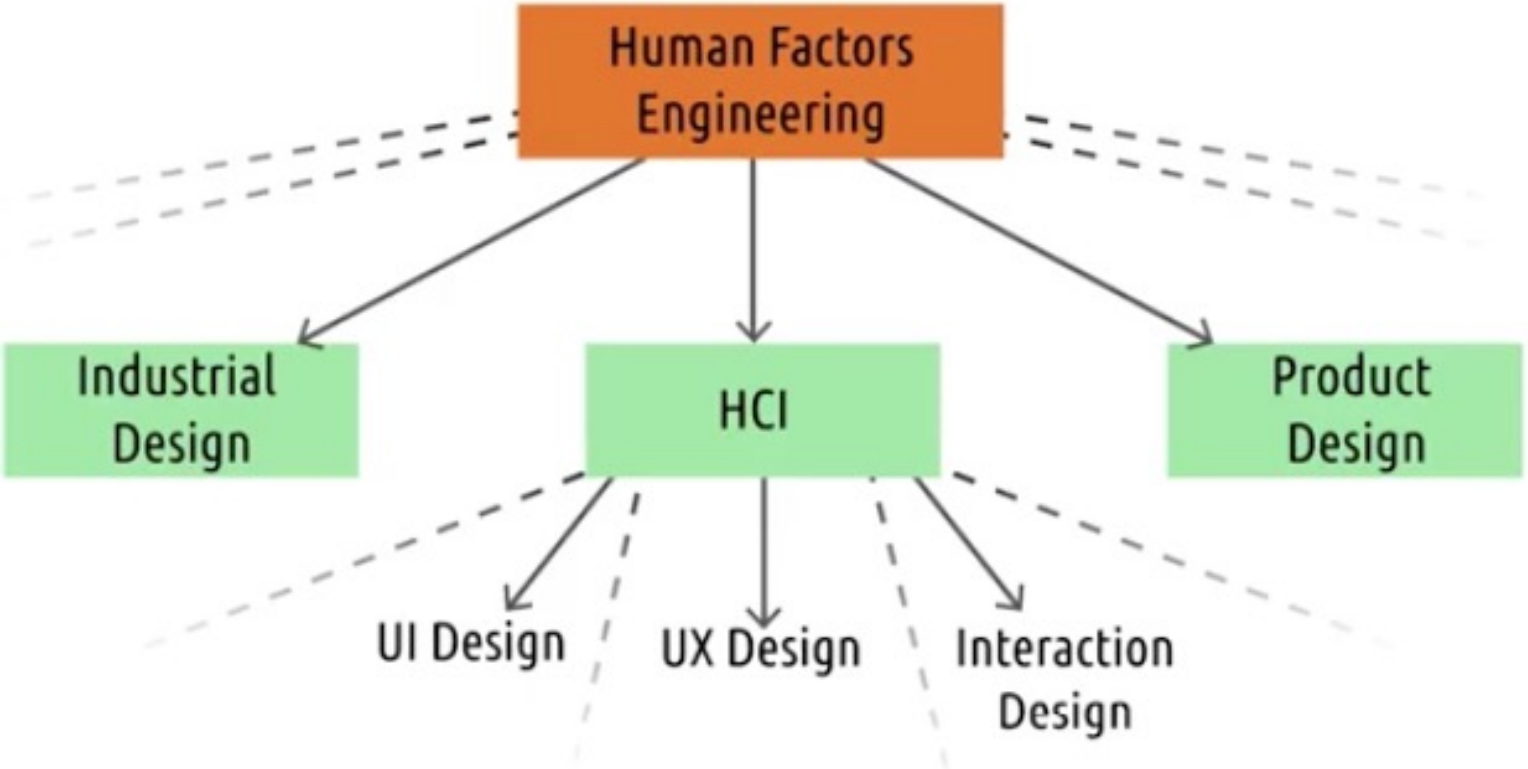


HCI VS USER INTERFACE DESIGN

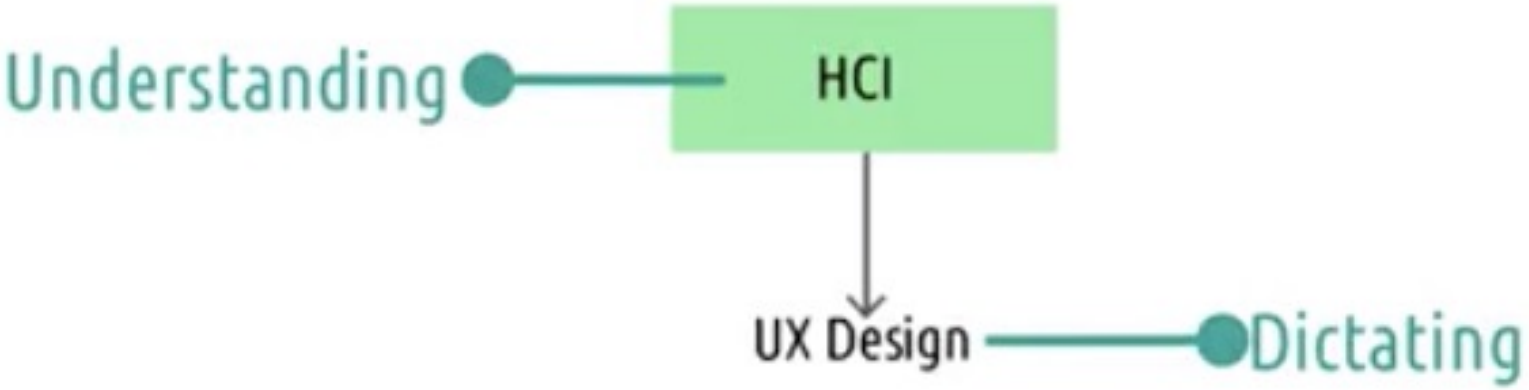
HCI VS USER INTERFACE DESIGN



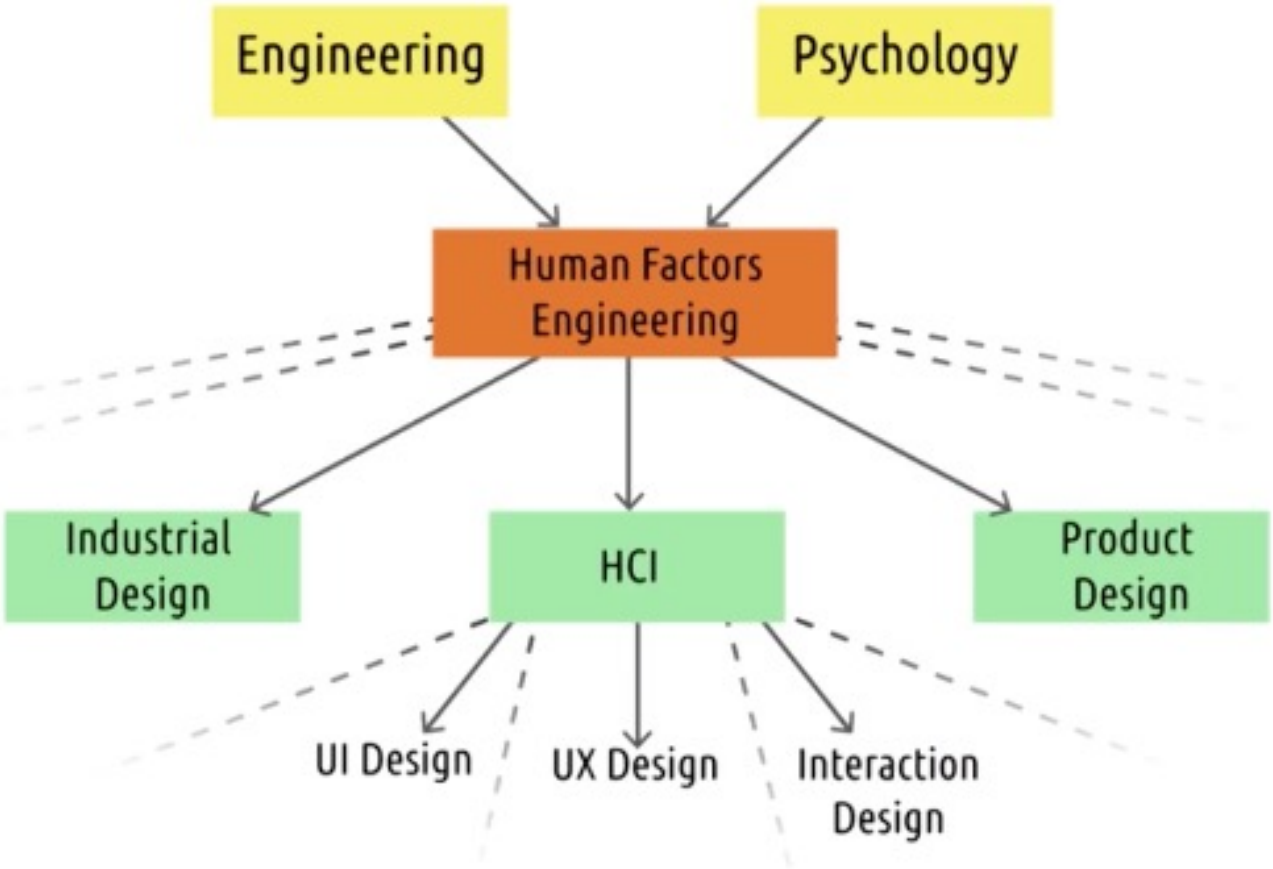
HCI VS. USER EXPERIENCE DESIGN



HCI VS. USER EXPERIENCE DESIGN



HCI VS. PSYCHOLOGY



HCI VS. PSYCHOLOGY

CHI '92 May 3 - 7, 1992

A 'Pile' Metaphor for Supporting Casual Organization of Information

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20525 Mariani Ave., MS 76-3H
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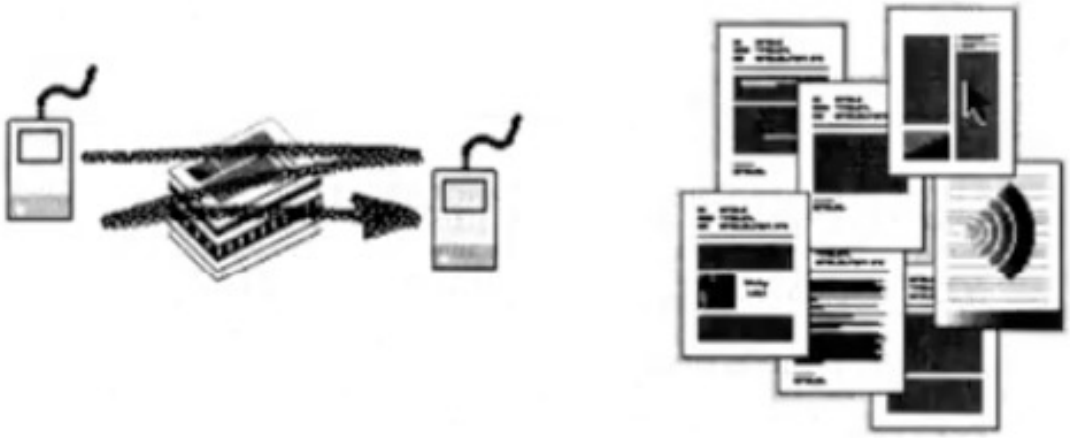
ABSTRACT

A user study was conducted to investigate how people deal with the flow of information in their workspaces. Subjects reported that, in an attempt to quickly and informally manage their information, they created piles of documents. Piles were seen as complementary to the folder filing system, which was used for more formal archiving. A new desktop interface element – the pile – was developed and prototyped through an iterative process. The design in-

We were also interested in how people work with assistants when dealing with information.

By examining individuals' information management schemes, we were able to extract and extrapolate a number of interesting interface ideas for a graphical interface. Our intent was not simply to emulate physical world functionality – several investigators have argued against this procedure [3,6] – but rather to leverage users' knowledge to

HCI VS. PSYCHOLOGY



(a) (b)

Figure 4. Browsing by spreading out a pile. Gesturing sideways with the mouse pointer, or with a finger in the case of a touch screen, causes the pile contents to spread out. Individual items can now be directly manipulated.

HCI VS. PSYCHOLOGY

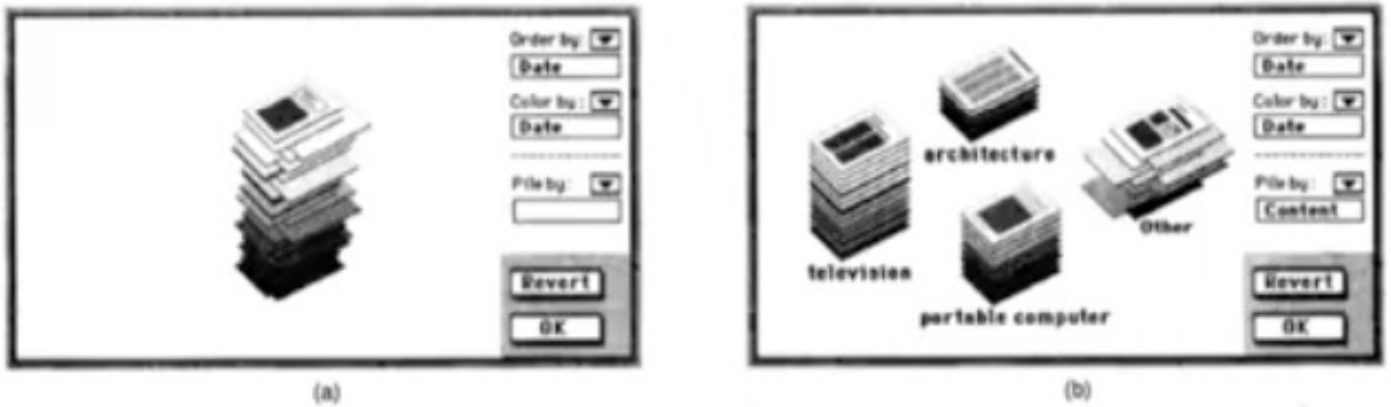


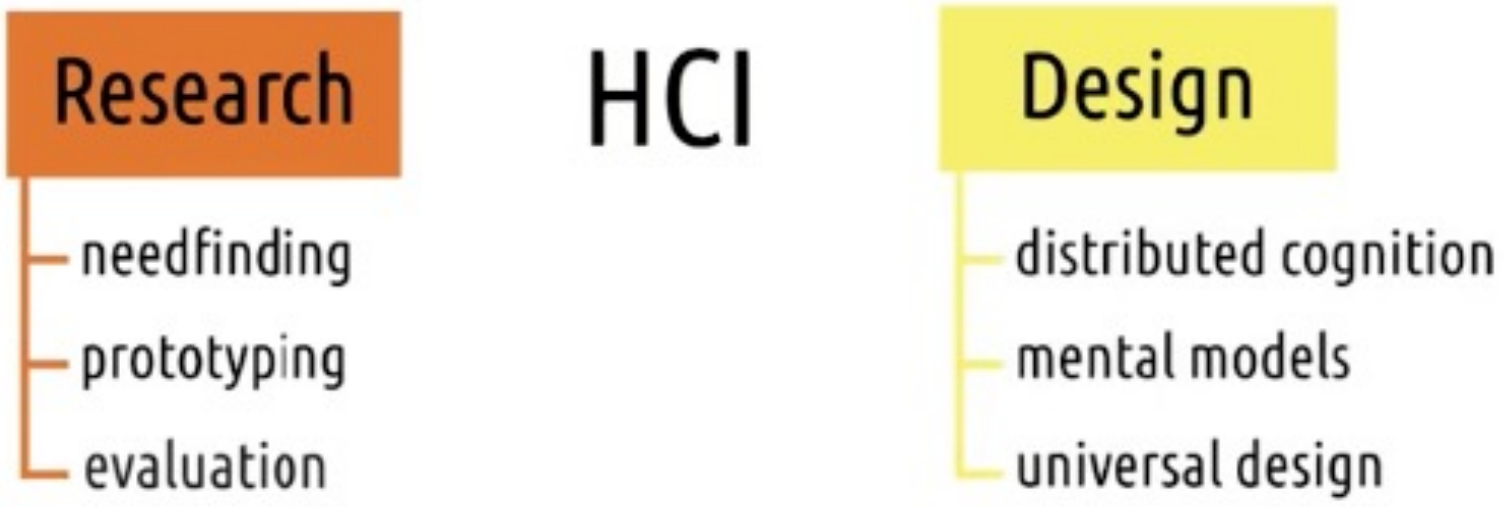
Figure 6. Visualizing a pile's contents. The pile shown is within a 'visualizing environment' that allows the user to select and visualize several criteria. Criteria can be mapped to the pile's order, the color of the items within the pile, or the way a pile is broken into sub-piles. In (a) the pile is both ordered and colored by date. In (b) the user chose to 'pile by' content. Therefore, the system separated the original pile into four content-based piles. Three are labeled with specific terms suggested by the system (e.g. "architecture"), appear neat and are now scripted to maintain similar content. The remaining disheveled pile, "other," contains items which did not fit into any of the other three piles.

By virtue of using miniatures of the actual documents, we offered edge browsing capabilities. In addition, we explored gestural inputs as a way to invoke other browsing methods. For example, a horizontal gesture would spread out a pile so that miniatures of each item's first page were

Method

Five men and five women in nontechnical positions at Apple Computer were individually tested in approximately one hour sessions. The subjects were asked to think aloud [5] while working through 5 tasks, and the sessions were

HCI: RESEARCH AND DESIGN



HCI: RESEARCH AND DESIGN

THANK YOU FOR ATTENTION.