

Questions?

- Projects?
 - Deadline: Feb 13
- Literature review?
 - Deadline: Feb 11

Research techniques used in this book

- Ethnographic studies
 - Dairies (what they say they are doing)
 - Interviews
 - Videos (what they are really doing)
- Controlled experiments
 - Reviewing a scientific paper
- Importance of population selection
 - IMF: knowledge workers in a technology reach environment
 - Reading study: representative sample of readers

The social role of paper

DanTech

- Paper as a collaboration tool (+)
- Paper as tangible reminder (+)
- Paper as an anchor (-)
- Paper as institutional memory (-)

UKCom

- Paper as a source of flexibility (+)
- Paper as a source of privacy (+)

Paper in knowledge work

- Omnipresent
 - 51% of tasks paper only,
 - 35% paper with electronic support
- Key tasks
 - Support authoring work
 - Provides simultaneous access to many piece of information at once*
 - Support reviewing work
 - Clear separation between reviewers and author's work*
 - Support planning work
 - Physical organization such as piles, layout...*
 - Annotations help one construct and organize thoughts*
 - Support collaborative activities
 - Shared understanding of what others are doing*
 - Support social conventions
 - "Delivering papers is to important to leave to e-mail"*

Reading

- Many form for reading
 - To identify
 - To Skim
 - To remind
 - To answer questions
 - To self inform
 - To learn
 - To cross reference
 - To edit or review
 - To support listening
 - To support discussion
 - ...

Using paper while reading

- People prefer paper while reading because it provides
 - Flexible navigation through a document
 - Flexible cross-referencing of more than one document
 - Flexible annotation mechanism
 - Flexible interleaving of reading and writing
- Visual aspect?
 - Contrast, sharpness...

Reading: Navigation

Paper

- Fast and transparent
 - Two handed,
 - Concurrent
 - Relying on sensory feedback
 - Rapid bookmarking

Digital documents

- Slow and distracting
 - One handed
 - Serial
 - Need of visual feedback
 - Slow bookmarking

Reading: getting the overall picture

Paper

- Large information space
 - Easy to organize
 - *Ad hoc layout*
 - Easy to glance at
 - Immediate access to information

Digital documents

- Small information space
 - Organization require interactions
 - *Rigid layout*
 - Difficult to glance at several documents
 - Often require interactions

Reading: Annotations

Paper

- Preserve the original
- Slow you down
- Transparent

Digital documents

- Preserve the original
 - Acrobat and Xlibris
- Slow you down
- Might be cognitively expensive
 - Acrobat?
 - Exception: Xlibris

Reading: Taking notes

Paper

- Free form
- Interleaving reading and writing
- Transparent

Digital documents

- Free form
 - Xlibris
 - Acrobat?
- Mostly sequential
 - Require interactions
- Might be cognitively expensive

Paper affordances for reading

- Tangibility
- Spatial flexibility
- Tailorability
- Manipulability

Reading: paper or digital?

	paper	digital
• Many form for reading		
– To identify	✓	
– To Skim	✓	
– To remind	✓	
– To answer questions		✓
– To self inform	✓	
– To learn	✓	
– To cross reference	✓	
– To edit or review	✓	
– To support listening	✓	
– To support discussion	✓	
– ...		

Reading for next class

- MPO: Chap 5