Attention and Interruption

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“In an information-rich world, the wealth of information means a dearth of something else: a scarcity of whatever it is that information consumes.

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Why study attention?

- Understand: how is technology impacting our ability to get things done?
- Design: help people manage their attention
Attention
Task Switching
[González and Mark, CHI ’04]

• Method: observation of 14 knowledge workers
• Research question: how do they organize their work and tasks?
• Results:
  • Switch tool every two minutes
  • Switch task every three minutes
  • Switch working sphere every ten minutes
Task Switching
[González and Mark, CHI ’04]

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The cost of multitasking
[Ophir, Nass, Wagner, PNAS ’09]

- People who self-report as high multitaskers are actually worse at multitasking
- Proposed mechanism: worse at filtering out irrelevant stimuli
The cost of email multitasking
[Mark, Voida and Cardello, CHI ’12]

• How is email usage impacting attention management?
• Method: cut off all email usage from employees for five days
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• How is email usage impacting attention management?
• Method: cut off all email usage from employees for five days
• Results
  • Less multitasking
  • Longer task focus
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• How is email usage impacting attention management?
• Method: cut off all email usage from employees for five days
• Results
  • Less multitasking
  • Longer task focus
  • Less stress (as measured by heart rate monitors)
Interuption
Interruption
The cost of interruption
[Mark, González, and Harris, CHI ’05]
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  - Two intervening activities before resuming
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• After an interruption...
  • Two intervening activities before resuming
  • 25 minutes before resuming
Sensing interruptability
[Fogarty et al., TOCHI ’05]

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