Decapod

Presenters:

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What is Decapod?

Decapod is a project focused on building a low-cost digitization solution that will allow for rare materials, materials held in collections without large budgets, and other scholarly content to be digitized into a high-quality PDF format.

This project will work to incorporate the hardware and software necessary to accomplish this goal.

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Who is Decapod?

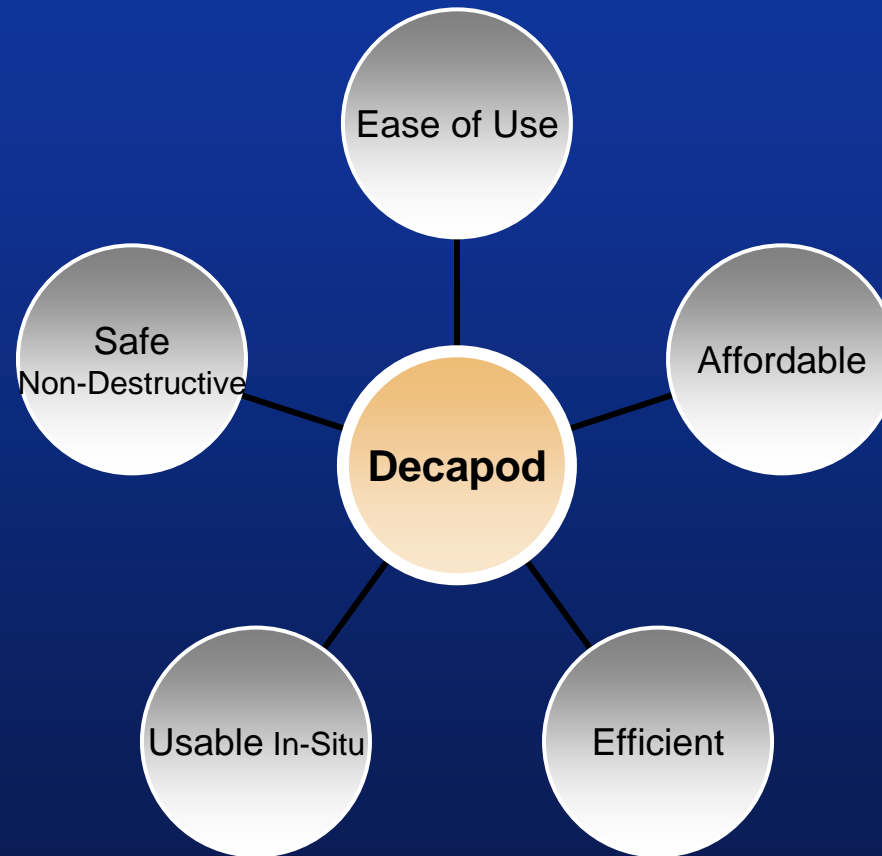Adaptive Technology Resource Centre
UNIVERSITY OF TORONTO

German Research Center for Artificial Intelligence

J STOR

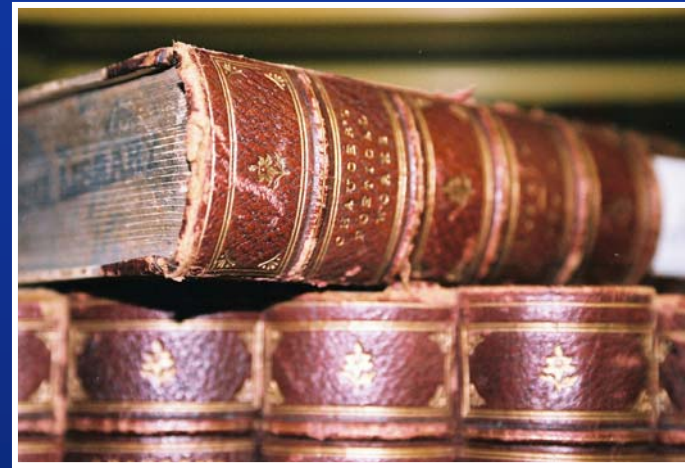Funded by the

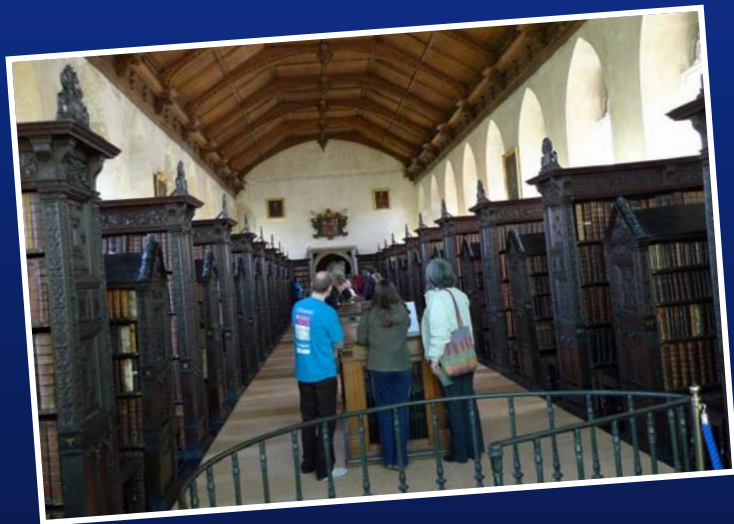Andrew W. Mellon Foundation

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Goals

Users & Applications

Staff and Volunteers

- Spend less time training, more time working
- Low barrier to entry (non-experts welcome!)

Collection Digitization

- Small to medium paper collections
- Preservation of rare and unique material
- Mobile solution = no need to remove from premises
- Non-destructive

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Features and Their Significance

- Camera-based capture
  - Non destructive
    - (not a flatbed scanner!)
  - Employ computer vision techniques to create archive quality digitizations
- Ease-of-Use
  - Low barrier to entry
 - Pleasant user experience

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Features and Their Significance

- Cost-effective
  - Reduced captial cost: consumer products and open source
  - Reduced operational cost: leverage who you have already
- Simple all-in-one package
  - Hardware and software, without the need for deep skill or resource investment

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Output

- TIFF, PDF and hOCR output
  - Can be searchable
  - Variable fidelity

- Flexible output
 - Reflowable
  - Font generation
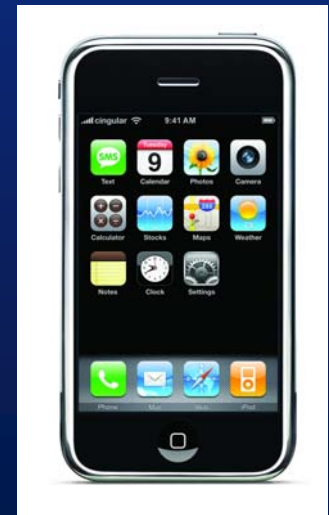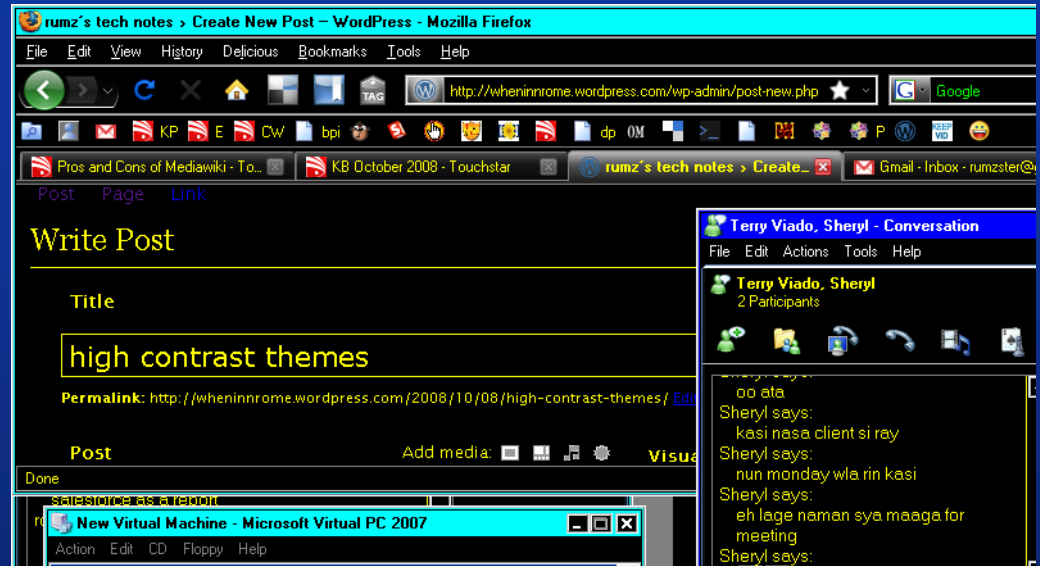
Design & Development

- Decapod not yet an existing solution; being designed and developed from scratch (sort of)
- Engines:
  - Tesseract (HP, Google)
  - Ocropus (DFKI)
- Behaviour and interface:
  - Fluid Infusion (ATRC)

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Design & Development

- Inclusive design
  - Design that benefits everyone
  - "Curb-cut advantage"
- User-centered design
  - Design that focuses on user considerations first and foremost
  - Results in a more pleasant working experience

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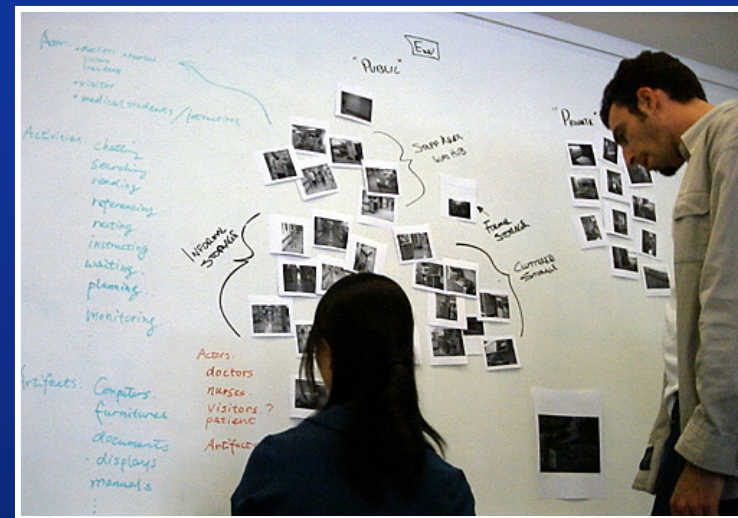
Design & Development

- Competitive analysis with other solutions
- User and subject matter expert research
  - Interviews, contextual inquiries, etc.
- Quick sketches by users and experts
- Quick implementations of prototypes
  - Tested by users, reviewed by experts
  - Many iterations and refinements

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Envisioned Product

Prototype Capture System

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Additional Information

- Search for "*Decapod Project*"

- http://sites.google.com/site/decapodproject

- http://www.fluidproject.org

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Thank you!