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Randy Trigg: Experience Using Notecards to Support Writing & Collaborative Work

Xerox PARC

Peggy Irish, Rudy Gobbel - current team

Frank Hakst, Tom Moran - original design

## Intro to Notecards

Browsable network of cards

→ via standard "sketch" editor

Typed cards: text, graphics, animations, procedures

Typed links

Fileboxes: multiple coexisting hierarchical structures

Browser: a dynamic picture of piece of network

~~Programmer's~~ user's interface

Card

Title

Out links displayed as "icons"

Can live "in" multiple fileboxes

→ table top card  
captures layout

→ A "file card" is like a symbolic link out into main filebox

Browser

Tell it what link types are interesting

Uses:

1. Search tool - temporary, to find specific card
2. Permanent aid for giving context
3. Editing tool for cards, links, fileboxes

Retrospective:

Weakness: backward D.B. weak; no new ideas

Strength: variety of actual applications to which it's been put

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Did "observational" study (led by Peggy Irish) into different styles of using Notecards by writers.

Looked at 20 writers; focused on 9 in in-depth interviews

Naturalistic rather than experimental; goal: descriptive framework

## Part I

Writing activities (non exclusive)

- ① Note taking
- ② Structuring/restructuring
- ③ References/bibliography
- ④ Document preparation

Problem: crossing boundary in & out of Notecards

issues: complexity of work to do

degree to which prior work can be borrowed

overhead of using Notecards

- ① Schemes for organizing notes  
→ temporary holding area  
"whiteboard" notes: [easy enough to enter sketches, formulas?]  
unordered, "unstructured" fileboxes  
"outline" fileboxes  
fileboxes as containers for future notes.  
Brainstorming

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## ② Structuring / restructuring

Multiple overlapping organizations of same material

Users can do gradual reorganization of a ~~collection~~ notefile

Browsers show overall organization

Manual "layout" can show structure

③

## ④ Document preparation

Creating a linear path through notefile

Using an outline

have automated "Assembling" tool ("document card")

this is a "one-shot" thing; [our way: network  $\rightarrow$  text]

would be nice to have an "outline processor view" built in

## Recommendation

Allow multiple organizations, interacting between them

Provide multiple views of network (e.g. outline)

Support "sliding" in/out of hypertext

## Part II

Collaboration study: Push on Notecards, which were originally single-user.

[work with Lucy Suchman]

Chronological note taking "organization"

Issue-based organization (new outline; mostly same old cards)

Serially reusable notefile (multitask server project rejoining)

Problem: Finding out what other person did over last day or two.

Solution "History" filebox of "history cards" with links to changed/new cards

Originally by convention; partially automated

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Problem: "Meta" discussions about how to use Notecards for specific purposes

Solution: "Message cards" - like Email;

Decision-needing cards; joint session agenda cards; ...

Question: What about Notecards as "delivery system".

Answer: A "guided tour" facility was just added; currently,  $\exists$  2 users.

↳ chain of table tops

Notecards server (proto by end of summer)

locking at card-level

acquisition & write lock, and update, & delete each notify concurrent readers.

Intermedia has important notion of web: different people can have separate sets of links  
narrower range of applications

perhaps less tailorable than Notecards