Realizing user-centered computer history: Designing and using NSF's FastLane (1990-present)

FastLane
History Project
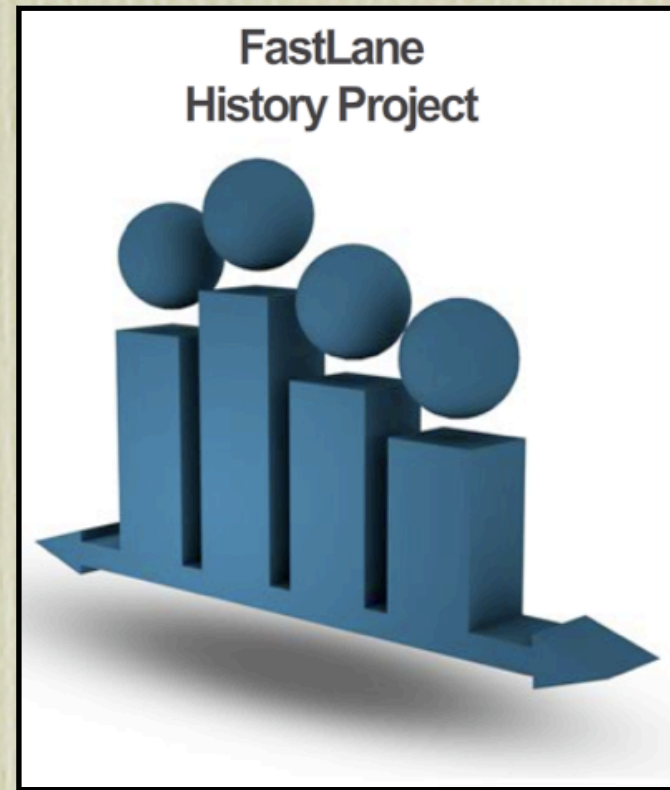
Thomas Misa (CBI)
Joline Zepcevski (Minnesota)
SHOT Lisbon October 12-14, 2008

Plan for today

1. What problem with 'user-centered' (computer) history?

2. CBI history of NSF's FastLane

3. New research tools + methods

(computer) history ⇔ [contemporary] history of 'STEM' domains . . . .

Problem with (computer) history?

▸ *Historiography:* user-heuristic (Fischer, Edgerton, Oudshoorn and Pinch; Cowan, Hippel, Cortada . . .)

▸ *Top-down source bias:* too little on users, rank-and-file, consumption

Jean Sammet (AFIPS, author)

Computer-history sources—CBI oral histories

- A
Adams, Armand E.
Adrion, W. Richards
Alexander, Curt
Allard, Raymond W.
Amarel, Saul
Amdahl, Gene
Anderson, Norma J.
Anderson, Walter L.
Armer, Paul
Armstrong, Dorothy P.
Armstrong, Lancelot W.
Auerbach, Isaac L.

- B
Babcock, Dean Frank
Baker, Eugene L.
Baran, Paul
Barnes, Bruce H.
Bartik, Jean
Barton, Robert S.
Bauer, Friedrich Ludwig
Bauer, Walter F.
Belady, L. A. (Laszlo A.)
Berce, Henri
Berg, Norbert R.
Bergmanis, Maris
Bhend, Bill
Bidzos, James
Birkenstock, James W.
Bitzer, Donald Lester
Bloch, Richard M.
Blue, Allan
Brackett, John
Brown, C. Hammond
Brown, Gordon R.
Buchanan, Bruce G.
Bulver, Paul J.
Burks, Alice R.
Burks, Arthur W.

Burroughs B 5000 Conference
Butler, William W., 1919-

- C
Campbell, Robert V. D.
Canning, Richard G.
Carter, Lee S.
Cavanaugh, Alfred Doughty
Cerf, Vinton G., 1943-
Chamberlin, D. D.
Chambers, Carl
Chinitz, M. Paul
Clark, Wesley
Clover, H. Dick
Cohen, Arnold A.
Coleman, Bruce T.
Collins, George A.
Conner, Richard D.
Conte, Samuel Daniel, 1917-
Control Data Corporation
Cook, Stephen Arthur.
Cooper, Robert S.
Corbató, F. J.
Crandall, Richard L., 1943-
Creech, Bobby A.

Computer-history sources—CBI oral histories

- Of 325 'named' oral histories . . . .

  - 15 women (4.6%)

  - 6 women outside UNIVAC [1990] + spouses

  - also too few computing users

- Yost on 'gender and computing' sources *CBI Newsletter* (Spring 08)

CBI—Archival collections

Herb Grosch and 'Ann'

- Of CBI's 166 finding guides:
  - 9 women (5.4%)
  - ... 118 cubic feet (2.4% of CBI's 5,000 feet)
  - Claire Schultz (67 ft), Frances Holberton (29 ft), Assoc. Women in Computing (6 ft)

- User groups (SHARE, UNIVAC Scientific Exchange USE, DECUS, DPMA, et al.)

CBI history of FastLane

- NSF "golden age" 1980-90s

  - EXPRES automation 1986-89

  - NSFNET early 1990s

- "FastLane" launched 1994 . . .

  - ... value-laden design: security, interoperability, sanctity of merit review, reliability

  - ... user-centered design

CBI history of FastLane

- FastLane = 6 modules developed and introduced 1996--

- Mandatory for proposal submissions 10/2000

- Today's 'infrastructure' for NSF grant-making (proposal submits + status, reviews, panels, money, annual +final reports)

CBI history of FastLane

- CBI "research grade" oral histories with core designers + sample users

- No archive on FastLane ... need document identification + collection

- How to assess large / varied users?

  - NSF 'legacy' staff

  - SPA staff

  - PI researchers

CBI history of FastLane

- Did NSF succeed in . . . [how?]

  - value-laden, user-centered design

  - encourage/frustrate proposal submissions by PI's at HBCU, EPSCoR-state universities?

- Consequences of FastLane for NSF? universities? research enterprise?

- Lessons for 'cyber-infrastructures'?
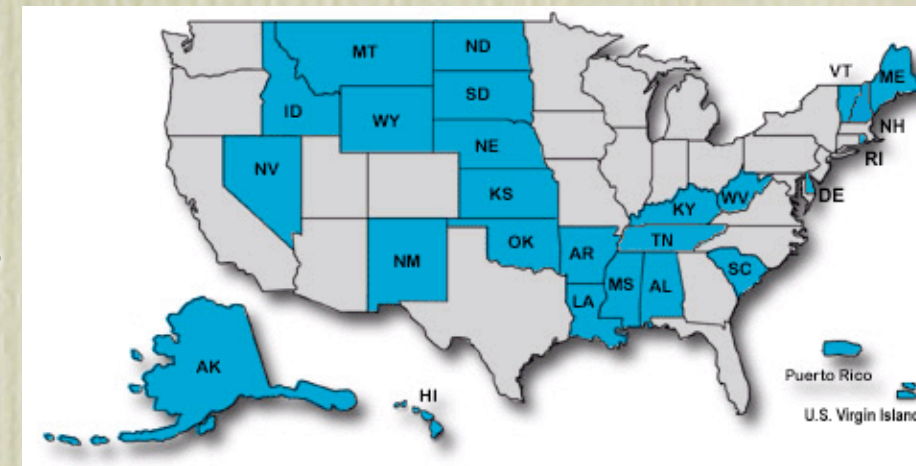
New research tools + methods

- "research grade" oral histories

- document collection + analysis

- Web-based interview 'platform'

- Wiki for 'FastLane community'

Web-based interview platform

- self-paced web-page interview

- scalable to >>>10 users; access 24/7; instant sign-up + access + responses

- simple approaches to . . .

- security, identification, different 'roles', multimedia, self-recordings

- php + mySQL = design 'portable'
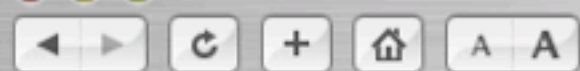
FastLane
History Project

screen-2

FastLane
History Project

Sign in

The Charles Babbage Institute (CBI) at the University of Minnesota is conducting a wide-ranging historical, documentary, and archiving project on the history of FastLane. FastLane history is not well known to those outside a select group within NSF despite its having won the 1996 National Information Infrastructure - Government Award.

A major initiative in e-government, FastLane emerged from and contributed to the wider currents of information technology, including the origins of networking, the Internet, LANs, and the World Wide Web.

screen-3

FastLane History Project.

| Home | About | Search | Wiki | Sponsored Projects | Principal Investigator | NSF Staff | My Archive |

Log In: tom-user5

Password: ••••••••

Submit   Reset

Or need to create an account? *Register here!*

FastLane History Project.

Register:

Please note, you will receive an email at the email address that you provide and it will be necessary for you to use the link in that email to confirm your membership.

First Name: _____

Last Name: _____

User Name : _____

Password: _____

Re-type Password: _____

Email: _____

Please choose the level of access you wish to provide:

○ Public Access
○ Fast Lane Community Only
○ CBI Research Team Only

What's this?

Submit

The access level you choose determines who has access to the information you provide.

permits access by members of the CBI research team, the FastLane community of authenticated users of this site, as well as members of the general public (least restrictive).

Fast lane community access permits access by members of the CBI research team and the FastLane community of authenticated users of this site.

Researchers only permits the CBI research team to view and utilize your information; in any publication or exhibit we will remove any mention of identified individuals and institutions (most restrictive).

FastLane History Project.

FastLane
Wiki

Participant
Interview Site

FastLane History Project.

Hello tom-user13!
Not you? Log out

Home | About | Search | Wiki | Sponsored Projects | Principal Investigator | NSF Staff | My Archive

FastLane
Wiki

Participant
Interview Site

Tom-user5   my talk   my preferences   my watchlist   my contributions   log out

article | discussion | edit | history | move | watch

Main Page

CBI FastLane History Project

FastLane www.fastlane.nsf.gov

navigation

- Main Page
- Community portal
- Current events
- Recent changes
- Random page
- Help

search

[Go] [Search]

toolbox

- What links here
- Related changes
- Upload file
- Special pages
- Printable version
- Permanent link
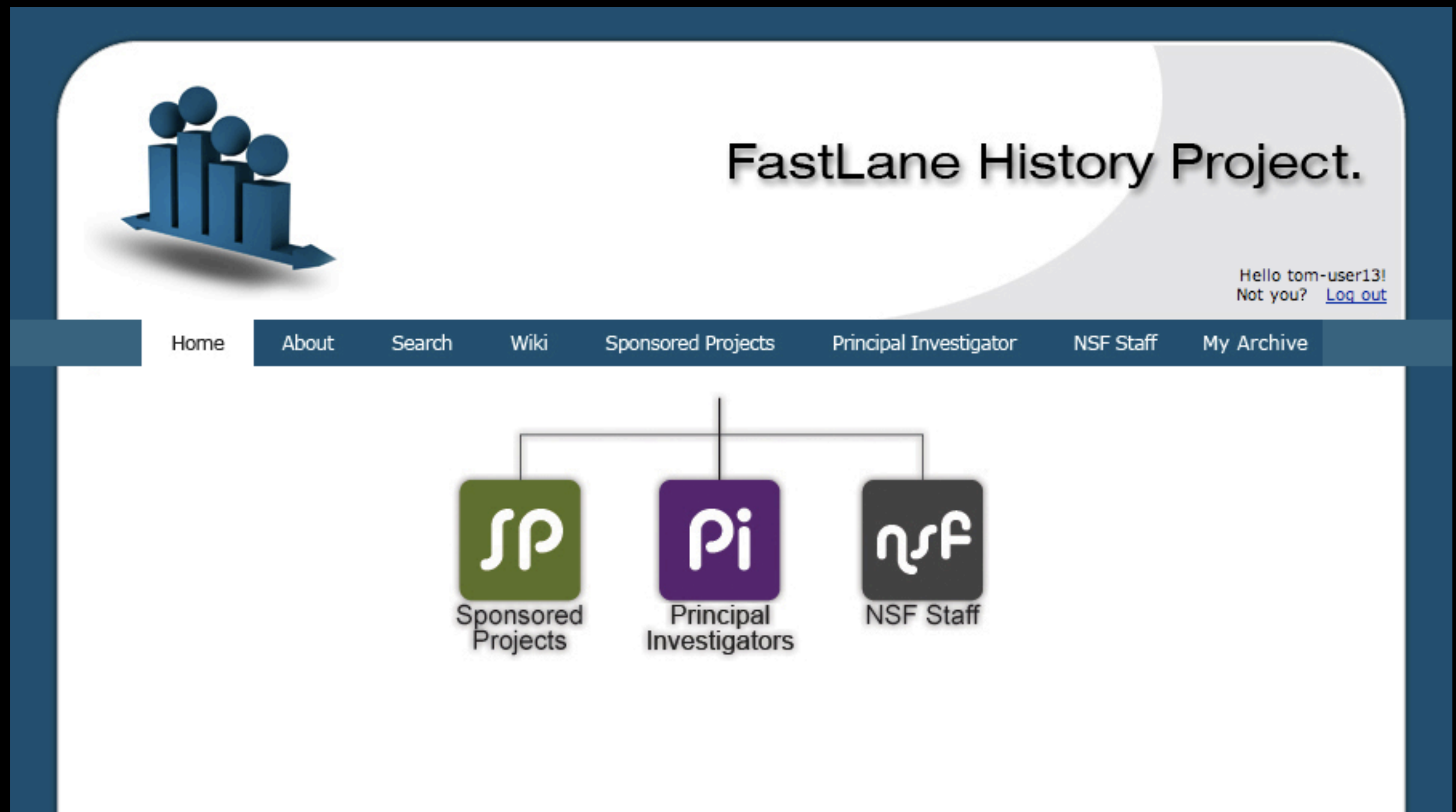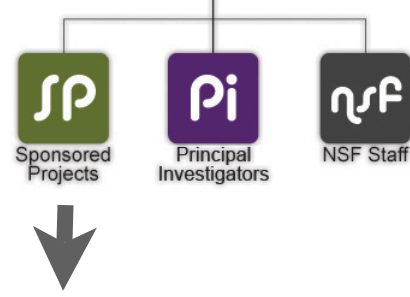
For the moment, please sign in to the Wiki separately.

FastLane's history is not well known to those outside a select group within NSF -- despite its having won the 1996 National Information Infrastructure - Government Award. A major initiative in e-government, FastLane contributed to the wider currents of information technology, including the origins of networking, the Internet, LANs, and the World Wide Web. NSF experienced something of a "golden age" in the 1980s, and took up several cutting-edge activities, most notably the NSFNET of the early 1990s. Interest in automating proposal preparation and submission led to the precursor EXPRES project (1986-89). Interaction with the Illinois-NCSA group that developed the Mosaic browser led to a specific design for the system's front end. Approved officially in early 1994 the newly named "FastLane" was designed to achieve interoperability, platform independence, and compound document functionality. Six interacting modules were developed and introduced incrementally beginning with a public launch in 1996; FastLane became mandatory for all proposal submissions in fall 2000. Along with PARS and eJacket, FastLane is the principal platform for all phases of NSF grant-making.

This Wiki site allows authenticated users to share their own experiences, stories, and documents with the FastLane community -- the staff at NSF that designed FastLane as well as the legacy users of today; the researcher-PI's who submit proposals through FastLane; and the Sponsored Projects staff at universities and research institutes that use it for submitting proposals as well as

FastLane History Project.

Home | About | Search | Wiki | Sponsored Projects | Principal Investigator | NSF Staff | My Archive

FastLane Wiki

Participant Interview Site

FastLane History Project.

Home | About | Search | Wiki | Sponsored Projects | Principal Investigator | NSF Staff | My Archive

Sponsored Projects

Principal Investigators

NSF Staff

FastLane History Project

Sponsored Projects

Home | About | Search | Wiki | **Sponsored Projects** | Principal Investigator | NSF Staff | My Archive

Home
SPA
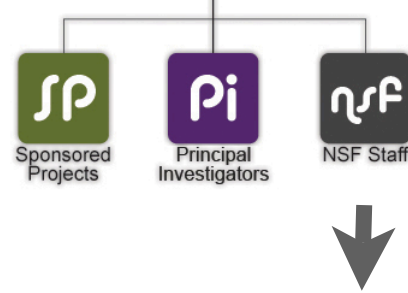*Introduction*
Training
Feedback
Evaluation
Upload

How did you hear about FastLane?

When did you start using fastlane?

What was your initial response to the news that fastlane was being developed?

FastLane History Project

NSF Staff

Hello tom-user13!
Not you? Log out

| Home | About | Search | Wiki | Sponsored Projects | Principal Investigator | NSF Staff | My Archive |

Home
NSF
 Introduction
 Training
 Feedback
 Evaluation
 Upload

You have already completed part of the interview process. To see and change your answers, please use "MyArchive".
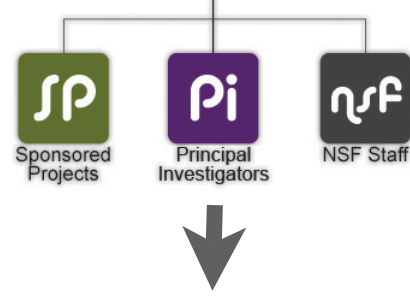
You have finished the interview.
Thanks!
Do you have files relating to FastLane - images, documents, powerpoints (any non-executable file up 850 KB) that you would like this research project to archive?

Choose a file to upload: (Choose File) no file selected

(Upload) *(this will upload your file and take you directly to MyArchive)*

If you have experiences as a PI or in a Sponsored Projects office or agency please click the banner button above to continue exploring the site.

Have a look at the Wiki pages? There you can see the historic FastLane - and give us your memories and comments!

FastLane History Project

Principal Investigator

Home   About   Search   Wiki   Sponsored Projects   **Principal Investigator**   NSF Staff   My Archive

Home
  PI
    Introduction
    Training
    Feedback
    Evaluation
    Upload

You have already completed part of the interview process. To see and change your answers, please use "MyArchive".

You have finished the interview.
Thanks!

Do you have files relating to FastLane - images, documents, powerpoints (any non-executable file up 5MB) that you would like this research project to archive?

Choose a file to upload:
[Choose File] no file selected

[Upload] *(this will upload your file and take you directly to MyArchive)*

Search = 'public', 'FastLane community' *but not* 'CBI research team only'

FastLane History Project

Search

Home | About | Search | Wiki | Sponsored Projects | Principal Investigator | NSF Staff | My Archive

Home
Search
  Search Results

Search Results

Tom Misa Participant's MyArchive Page

Tom Misa Participant's MyArchive Page

Tom Misa Participant's MyArchive Page

Tom Misa Participant's MyArchive Page

Tom Misa Participant's MyArchive Page

MyArchive = 'self' only

MyArchive

Home | About | Search | Wiki | Sponsored Projects | Principal Investigator | NSF Staff | My Archive

Biographical Information

Thomas Misa

Interview

PI

To: information security history group From: Tom Misa (CBI) Date: Friday, September 19, 2008 Subject: Draft sketch of information-security history project Information security is an obviously vital topic, and yet its history remains significantly under-studied. I hope here to provide a tentative outline of research activities that might be fashioned into a fundable project. CBI would like to be part of this important effort. Published resources: Matt Bishop anthology "Early Computer Security Papers" [16 classic papers 1972-85 in PDF -- from NISSC '98 correct?] Parker "The Dark Side of Computing: SRI International and the Study of Computer Crime" AHC 29 #1 (2007): 3-15 De Leeuw & Bergstra, The history of information security: a comprehensive handbook (Elsevier 2007) Archival resources at CBI: Donn Parker papers Walter L. Anderson papers Carl Hammer papers National Bureau of Standards computer literature Jeff Yost oral histories (CBI) Willis Ware [2003] Donn Parker [2003] James Bidzos [2004] Martin Hellman [2004] Possible activities: Oral histories with key figures (CBI "research-grade" oral histories) Group interviews (CHM video model) Document collection and archiving Analysis of research results Publication (articles, reports, journal special issue, book?) Wider dissemination of project results (history plus "lessons learned") Needed for proposal development: Create advisory committee for project development (need agreement and endorsement letter from committee chair)

Platform timeline

- software design, development, testing . . . (AY 2007-)

- pilot users, open to research, interview comparisons (AY 2008-)

- portable (AY 2009-)

Questions for future

- Will people use site?

  ✓ *engaged community of FL users*

- Web results compare to interviews?

  ✳ *~validation needed*

- Uses beyond FastLane history?

  ✓ *computer alumni + retiree groups ... UMn college alumni ... wider world*