

# Michael Bernstein

MIT CSAIL  
32 Vassar Street, 32-350  
Cambridge, MA 02139

(949) 300-2421  
msbernst@mit.edu  
<http://people.csail.mit.edu/msbernst>

## Education

**Massachusetts Institute of Technology**, Cambridge, MA 9/08 – present  
Ph.D. Student, Computer Science  
Advisors: David Karger and Rob Miller

**Massachusetts Institute of Technology**, Cambridge, MA 6/08  
Master of Science, Computer Science  
Thesis: *Information Scraps: Understanding and Design*  
Advisors: David Karger and Rob Miller

**Stanford University**, Stanford, CA 6/06  
Bachelor of Science, Symbolic Systems (Human-Computer Interaction)  
Graduated with Honors and Distinction, GPA: 4.03 / 4.00  
Advisors: Terry Winograd and Scott Klemmer

## Research Interests

Human-computer interaction: personal information management, social computing, physical computing.

## Employment

**MIT Haystack & User Interface Design Groups**, Cambridge, MA 9/06 – present  
*Research Assistant*  
With Professors David Karger and Rob Miller, I am exploring the next generation of personal information management systems. I am particularly interested in creating a lightweight, integrated solution for capture of “information scraps,” or unstructured notes and thoughts.

**Microsoft Research VIBE Group**, Redmond, WA 5/08 – 8/08  
*Research Intern*  
Collaborated with researchers Desney Tan and Mary Czerwinski to create a new type of social networking application that has the side effect of producing descriptive tags about individuals for use in personalization applications. The application, Collabio, attracted over 1,000 users in its first month on Facebook and generated tens of thousands of tags.

**Google, Inc.**, Mountain View, CA 6/06 – 9/06  
*User Interface Design Intern*  
Designed and prototyped delivered interface improvements for an upcoming release of the Google Finance product. Presented these designs for critique to the Vice President for Search Products and User Experience and Google Finance Senior Product Manager.

**Stanford University HCI Group**, Stanford, CA 6/05 – 9/05  
*Research Assistant*  
Built a research system to facilitate product designers prototyping interactive devices. Responsibilities included interaction design and implementation of the system.

Palo Alto Research Center (formerly Xerox PARC), Palo Alto, CA

6/04 – 9/04

Research Intern

With the Human-Document Interaction group, extended a Java-based tool designed to support rapid execution of reading experiments. Created a series of linguistic and statistical text enhancements to increase users' abilities to read linearly, scan, and answer questions about documents.

7 Studios, Santa Monica, CA

6/03 – 9/03

Video Game Design Intern

Worked in the areas of game, level, and sound design. Used the company's proprietary software to build levels included in a prototype game presented to a publisher. Designed a game demo to sell a concept to a potential licensee. Contributed to cross-console release of Fantastic Four video game, released Summer 2005.

## Publications

### Conference Papers

- [1] **Bernstein, M.**, Sharger, J., and Winograd, T. 2008. Taskposé: Exploring Fluid Boundaries in a Task-Based Window Manager. In *Proceedings of UIST 2008: ACM Symposium on User Interface Software and Technology*.
- [2] Miller, R.C., Chou, V., **Bernstein, M.**, Little, G., Van Kleek, M., Karger, D., and schraefel, mc. 2008. Inky: A Sloppy Command Line for the Web with Rich Visual Feedback. In *Proceedings of UIST 2008: ACM Symposium on User Interface Software and Technology*.
- [3] Van Kleek, M., **Bernstein, M.**, Karger, D.R., and schraefel, mc. GUI — Phooey!: The Case for Text Input. In *Proceedings of UIST 2007: ACM Symposium on User Interface Software and Technology*.
- [4] Hartmann, B., Klemmer, S.R., **Bernstein, M.**, Abdulla, L., Burr, B., Robinson-Mosher, A., Gee, J. Reflective physical prototyping through integrated design, test, and analysis. In *Proceedings of UIST 2006: ACM Symposium on User Interface Software and Technology*. **Best paper award.**

### Journal Articles

- [5] **Bernstein, M.**, Van Kleek, M., Karger, D.R., and schraefel, mc. 2008. Information Scraps: How and Why Information Eludes our Personal Information Management Tools. *ACM Transactions on Information Systems* 26(4).

### Posters and Demonstrations

- [6] **Bernstein, M.**, Van Kleek, M., schraefel, mc, and Karger, D.R. 2007. Management of Personal Information Scraps. In *Extended Abstracts of CHI 2007: Work-in-progress*. **First place, work-in-progress People's Choice award.**
- [7] **Bernstein, M.**, Robinson-Mosher, A., Yeh, R.B., Klemmer, S.R. 2006. Diamond's Edge: From Notebook to Table and Back Again. In *Conference Supplement to Ubicomp 2006: Posters*.
- [8] Hartmann, B., Klemmer, S.R., **Bernstein, M.**, and Mehta, N. *d.tools: Visually Prototyping Physical UIs through Statecharts*. In *Conference Supplement to UIST 2005: Demonstrations*. Seattle, WA, October 2005.

### Workshop Presentations

- [9] **Bernstein, M.**, Van Kleek, M., schraefel, mc, and Karger, D.R. 2008. Evolution and Evaluation of an Information Scrap Manager. In *Proceedings of PIM 2008: CHI 2008 Workshop on Personal Information Management*.
- [10] Van Kleek, M., **Bernstein, M.**, André, P., Pertunnen, M., Karger, D.R., schraefel, mc. 2008. Simplifying knowledge creation and access for end users on the SW. In *Proceedings of the SWUI 2008: CHI 2008 Workshop on Semantic Web User Interfaces*.
- [11] **Bernstein, M.**, Van Kleek, M., Karger, D.R., and schraefel, mc. 2007. Personal Information Retrieval and the Problem of Information Scraps. In *Proceedings of HCIR 2007: Workshop on Human-Computer Interaction and Information Retrieval*.
- [12] **Bernstein, M.**, Van Kleek, M., Karger, D.R., and schraefel, mc. 2007. Information Scraps: Eluding our Personal Information Management Tools. In *Proc. CSW 2007: CSAIL Student Workshop*.

## Unrefereed Publications

- [13] **Bernstein, M.**, Van Kleek, M., Karger, D.R., and schraefel, mc. 2007. Wicked Problems and Gnarly Results: Reflecting on Design and Evaluation Methods for Idiosyncratic Personal Information Management Tasks. *MIT Technical Report MIT-CSAIL-TR-2008-007*.
- [14] Hartmann, B., Klemmer, S.R., and **Bernstein, M.** 2006. Prototypes Enable Collaboration in Product Design – Let’s Help Designers Build More of Them. Boaster Paper in *Human Computer Interaction Consortium Winter Workshop*.
- [15] Hartmann, B., Klemmer, S.R., and **Bernstein, M.** *d.tools: Integrated Prototyping for Physical Interaction Design*. Work-in-Progress report in *IEEE Pervasive Computing*, Oct-Dec 2005.

## Magazine Articles

- [16] Bernstein, M. *Earth to Designers: Aim Higher!* Ambidextrous Magazine 10. 2008.
- [17] Bernstein, M. */usr/bin/pimp/my/workstation*. Ambidextrous Magazine 9. 2008.
- [18] Bernstein, M. *Attention, Please!* Ambidextrous Magazine 8. 2007.
- [19] Bernstein, M. *Brand New Brands*. Ambidextrous Magazine 7. 2007.
- [20] Bernstein, M. *Propellerhead Studios*. Ambidextrous Magazine 6. 2007.

## Awards

- Xerox Fellowship (2008)
- National Science Foundation Graduate Fellowship (2007)
- Phi Beta Kappa (2006)
- Firestone Award for Excellence in Undergraduate Research, Stanford University (2006)
- Nomination, Boothe Prize for Excellence in Writing, Stanford University (2003)
- Eagle Scout with Silver Palm, Boy Scouts of America (1999)

## Talks

- [1] Information Scraps: Understanding and Design.  
University of Washington, Seattle, WA, June 11 2008.

## Press

- [1] Digging Out from Piles of Sticky Notes. MIT TechTalk, December 2008.  
<http://web.mit.edu/newsoffice/2008/info-scraps-tt1210.html>
- [2] Microsoft Conducts Research on Facebook With Collabio. TechCrunch, August 2008.  
<http://www.techcrunch.com/2008/08/22/microsoft-uses-facebook-to-conduct-research-with-collabio/>
- [3] Collabio Game Explores Social-Network Data Mining...And Social Psychology. Microsoft Research News & Highlights, August 2008.  
<http://research.microsoft.com/displayArticle.aspx?id=2075>

## Service

- Organizer, CSAIL Human-Computer Interaction Speaker Seminar. 2006 - present.
- Organizer, CSAIL Human-Computer Interaction Reading Group. 2006 - present.
- Workshop Chair, First Workshop on Human Computer Interaction and Information Retrieval. 2007.
- Reviewer: CHI 2007-2009, UIST 2008.
- Student Volunteer: CHI 2006.

## Teaching

- Interactive Technology Design** (6.964), MIT  
*Course Creator and Instructor*

Conceived, designed and carried out a new interaction design studio course at MIT. Course taught design process and prototyping tools: sketching, brainstorming, needfinding; Adobe Flash and Arduino.

**Introduction to HCI** (CS 147), Stanford University

9/05 – 12/05

*Teaching Assistant with Prof. Terry Winograd*

Taught forty students in two discussion sections. Assisted the professor in redesigning the course by devising a new set of readings, retooling assignments, and revamping lectures.

**Programming Methodologies** (CS 106A), Stanford University

3/04 – 6/04

*Section Leader with Prof. Nick Parlante*

Led a weekly section to discuss lecture material. Advised the head TA and professor on course direction and homework problems.