

# 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*

**Stanford University**, Stanford, CA 6/06  
Bachelor of Science, Symbolic Systems (focus in human-computer interaction)  
Graduated with Honors and Distinction, GPA: 4.03 / 4.00  
Advisors: Terry Winograd and Scott Klemmer

## Research Interests

Social computing, personal information management, intelligent and adaptive user interfaces, physical computing.

## Employment

**People, Software and Information Group, MIT CSAIL**, Cambridge, MA 9/06 – present  
*Research Assistant*

With Professors David Karger and Rob Miller, I am exploring novel social computing applications. I study social gestures that friends make in existing social situations and translate these insights into designs for new “friendsourced” applications. I am also involved in personal information management research via a study of information scraps: freeform notes jotted down quickly onto Post-its or text files.

**Augmented Social Cognition Group, Palo Alto Research Center (PARC)**, Palo Alto, CA 6/09 – 8/09  
*Research Intern*

Worked under the mentorship of Ed Chi to address information overload as exhibited by social feeds online. Designed an algorithm to identify topics in short status updates, and built a Twitter client with novel user interface features designed to take advantage of topic groupings.

**VIBE Group, Microsoft Research**, 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.

**HCI Group, Stanford University**, 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.

**Human-Document Interaction Group, Palo Alto Research Center (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.**, Suh, B., Hong, L., Chen, J., and Chi, E.H. 2009. Interactive Topic-Based Browsing of Social Status Streams. Submitted to *CHI 2010: SIGCHI Conference on Human Factors in Computing Systems*.
- [2] **Bernstein, M.**, Marcus, A., Karger, D.R., and Miller, R.C. 2009. Understanding and Supporting Directed Content Sharing on the Web. Submitted to *CHI 2010: SIGCHI Conference on Human Factors in Computing Systems*.
- [3] **Bernstein, M.**, Tan, D., Smith, G., Czerwinski, M., and Horvitz, E. 2009. Collabio: A Game for Annotating People within Social Networks. In *Proceedings of UIST 2009: ACM Symposium on User Interface Software and Technology*. 16.9% acceptance rate.
- [4] Van Kleek, M., **Bernstein, M.**, Panovich, K., Vargas, G., Karger, D.R., and schraefel, mc. 2009. Note to Self: Examining Personal Information Keeping in a Lightweight Notekeeping Tool. In *Proceedings of CHI 2009: SIGCHI Conference on Human Factors in Computing Systems*. 24.5% acceptance rate. **Best short paper nominee.**
- [5] **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*. 20.0% acceptance rate.
- [6] 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*. 20.0% acceptance rate.
- [7] Van Kleek, M., **Bernstein, M.**, Karger, D.R., and schraefel, mc. 2007. GUI — Phooey!: The Case for Text Input. In *Proceedings of UIST 2007: ACM Symposium on User Interface Software and Technology*. 17% acceptance rate.
- [8] Hartmann, B., Klemmer, S.R., **Bernstein, M.**, Abdulla, L., Burr, B., Robinson-Mosher, A., Gee, J. 2006. Reflective physical prototyping through integrated design, test, and analysis. In *Proceedings of UIST 2006: ACM Symposium on User Interface Software and Technology*. 23% acceptance rate. **Best paper award.**

### Journal Articles

- [9] **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).

### Video Showcases

- [10] **Bernstein, M.**, André, P., Luther, K., Poole, E., Solovey, E., Paul, S., Kane, S., and Grudin, J. CHIstory. In CHI 2009: SIGCHI Conference on Human Factors in Computing Systems. **Golden Mouse award winner.**

### Posters and Demonstrations

- [11] **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.**

- [12] **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*.
- [13] 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

- [14] **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*.
- [15] 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*.
- [16] **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*.
- [17] **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

- [18] **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*.
- [19] 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*.
- [20] 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

- [21] Bernstein, M. *Earth to Designers: Aim Higher!* Ambidextrous Magazine 10. 2008.
- [22] Bernstein, M. */usr/bin/pimp/my/workstation*. Ambidextrous Magazine 9. 2008.
- [23] Bernstein, M. *Attention, Please!* Ambidextrous Magazine 8. 2007.
- [24] Bernstein, M. *Brand New Brands*. Ambidextrous Magazine 7. 2007.
- [25] Bernstein, M. *Propellerhead Studios*. Ambidextrous Magazine 6. 2007.

## Awards

- Best Short Paper nominee, ACM CHI conference (2009)
- Xerox Fellowship (2008)
- National Science Foundation Graduate Research Fellowship (2007)
- Best Paper, ACM UIST conference (2006)
- Phi Beta Kappa, Stanford University (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] Pourquoi les ordinateurs n'arrivent-ils pas à concurrencer les Post-it? Le Monde, March 2009.  
[http://www.lemonde.fr/technologies/article/2009/03/20/pourquoi-les-ordinateurs-n-arrivent-ils-pas-a-concurrencer-les-post-it\\_1170786\\_651865.html](http://www.lemonde.fr/technologies/article/2009/03/20/pourquoi-les-ordinateurs-n-arrivent-ils-pas-a-concurrencer-les-post-it_1170786_651865.html)

- [2] Tip of the Week: Managing Post-It Notes. New York Times, January 2009.  
<http://www.nytimes.com/2009/01/29/technology/personaltech/29askk-003.html>
- [3] Why Computers Can't Kill Post-Its. Forbes, January 2009.  
[http://www.forbes.com/2009/01/21/postits-digital-tools-tech-intel-cz\\_lg\\_0122postits.html](http://www.forbes.com/2009/01/21/postits-digital-tools-tech-intel-cz_lg_0122postits.html)
- [4] New York Times Tech Talk Podcast, January 2009.  
<http://podcasts.nytimes.com/podcasts/2009/01/21/22techtalk.mp3>
- [5] Lifehacker.com: Featured Firefox Extension: list.it Synchronizes Firefox Notes in Firefox  
<http://lifehacker.com/5113054/listit-synchronizes-text-notes-in-firefox>
- [6] Digging Out from Piles of Sticky Notes. MIT TechTalk, December 2008.  
<http://web.mit.edu/newsoffice/2008/info-scrapstt1210.html>
- [7] 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/>
- [8] 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, MIT CSAIL Human-Computer Interaction Speaker Seminar. 2006 - present.  
 Founder and Organizer, MIT CSAIL Human-Computer Interaction Reading Group. 2006 - present.  
 Workshop Chair, First Workshop on Human Computer Interaction and Information Retrieval. 2007.  
 Reviewer: CHI 2007-2010, UIST 2008 – 2009, CSCW 2009, ISWC 2009.  
 Student Volunteer: CHI 2006.

## Teaching

**Interactive Technology Design** (6.964), MIT

1/09

*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.