

# Michael S. Bernstein

Assistant Professor of Computer Science  
Stanford University

msb@cs.stanford.edu  
<http://hci.stanford.edu/msb>  
353 Serra Mall, Room #384, Stanford CA 94305

## Education

**Massachusetts Institute of Technology**, Cambridge, MA 2012  
Ph.D., Electrical Engineering and Computer Science  
Thesis: *Crowd-Powered Systems*

**Massachusetts Institute of Technology**, Cambridge, MA 2008  
Master of Science, Electrical Engineering and Computer Science

**Stanford University**, Stanford, CA 2006  
Bachelor of Science with Honors and Distinction, Symbolic Systems

## Research Interests

Human-computer interaction, crowdsourcing, social computing

## Employment

Stanford University, Stanford, CA 1/13 – present  
*Assistant Professor of Computer Science, 2013 – current*

Facebook Data Science Team, Menlo Park, CA 7/12 – 12/12  
*Postdoctoral Researcher, 2012*

## Awards and Honors

2018 Best Paper honorable mention, ACM CHI  
2017 Best Paper award, ACM CHI  
Best Paper award, ACM CSCW  
Best Paper honorable mention, ACM UIST  
Best Paper Honorable Mention x2 (2 independent honorable mentions on different papers), ACM CHI  
Outstanding Academic Title, American Library Association, *Choice: Handbook of Collective Intelligence*  
2016 Sloan Research Fellowship  
Best Paper award, ACM CHI  
Best Paper honorable mention, ACM CHI  
2015 Invited paper in Communications of the ACM, Technical Perspective  
Best Paper Honorable Mention x5 (5 independent honorable mentions on different papers), ACM CHI  
Best Paper Honorable Mention, ACM CSCW  
2014 Best Paper award, ACM UIST  
National Academy of Sciences Kavli Fellow  
NSF CAREER award  
2013 Robert N. Noyce Family Faculty Scholar (2013–2015)  
Google Faculty Research Award  
Yahoo! Academic Career Enhancement Award

	Best Paper Honorable Mention, ACM CHI
2012	Best Paper Honorable Mention, ACM CHI Best Short Paper Honorable Mention, ACM CSCW George M. Sprowls Award for best doctoral thesis in Computer Science at MIT
2011	Microsoft Research PhD Fellowship Best Paper, AAAI ICWSM
2010	Best Student Paper, ACM UIST
2009	Best Short Paper Honorable Mention, ACM CHI
2008	Xerox Graduate Fellowship
2007	National Science Foundation Graduate Research Fellowship
2006	Best Paper, ACM UIST

## Publications

Top-tier venues in human-computer interaction research include the ACM conferences CHI, UIST, and CSCW. In 2018, CSCW transitioned to a hybrid journal structure and renamed itself Proceedings of the ACM: CSCW (PACM: CSCW). Students are typically named first in human-computer interaction research.

### Refereed Conference and PACM (conference-journal hybrid) papers

- [1] **Alkhatib, A.**, and Bernstein, M. 2019. Street-Level Algorithms: A Theory At The Gaps Between Policy and Decisions. *CHI 2019: SIGCHI Conference on Human Factors in Computing Systems*.
- [2] **Kovacs, G.**, Gregory, A.M., Ma, Z., Wu, Z., Emami, G., Ray, J., and Bernstein, M. 2019. Conservation of Procrastination: Do Productivity Interventions Save Time Or Just Redistribute It? *CHI 2019: SIGCHI Conference on Human Factors in Computing Systems*.
- [3] **Salehi, N.**, and Bernstein, M. 2018. Hive: Collective Design Through Network Rotation. *Proc. ACM Hum.-Comput. Interact. 2, CSCW, Article 151 (November 2018)*.
- [4] **Kovacs, G.**, Wu, Z., and Bernstein, M. 2018. Rotating Online Behavior Change Interventions Increases Effectiveness But Also Increases Attrition. *Proc. ACM Hum.-Comput. Interact. 2, CSCW, Article 95 (November 2018)*.
- [5] **Krishna, R.**, Chami, I., Bernstein, M., and Fei-Fei, L. 2018. Referring Relationships. *CVPR 2018*.
- [6] **Zhou, S.**, Valentine, M., and Bernstein, M. 2018. In Search of the Dream Team: Temporally Constrained Multi-Armed Bandits for Identifying Effective Team Structures. *CHI 2018: SIGCHI Conference on Human Factors in Computing Systems*. **Best Paper honorable mention.**
- [7] **Fast, E.**, Chen, B., Mendelsohn, J., Bassen, J., and Bernstein, M. 2018. Iris: A Conversational Agent for Complex Tasks. *CHI 2018: SIGCHI Conference on Human Factors in Computing Systems*.
- [8] **Retelny, D.**, Bernstein, M., and Valentine, M. 2017. No Workflow Can Ever Be Enough: How Crowdsourcing Workflows Constrain Complex Work. *Proc. ACM Hum.-Comput. Interact. 1, CSCW, Article 89 (November 2017)*.
- [9] Vaish, R., Gaikwad, S., **Kovacs, G.**, Veit, A., **Krishna, R.**, Ibarra, I.A., Simoiu, C., Wilber, M., Belongie, S., Goel, S., Davis, J., Bernstein, M. Crowd Research: Open and Scalable University Laboratories. 2017. *UIST 2017: ACM Symposium on User Interface Software and Technology*. **Best Paper honorable mention.**
- [10] Lin, Z., **Salehi, N.**, Yao, B., Chen, Y., Bernstein, M. Better When It Was Smaller? Community Content and Behavior After Massive Growth. 2017. *ICWSM 2017: AAAI Conference on Web and Social Media*.
- [11] Valentine, M., **Retelny, D.**, **To, A.**, **Rahmati, N.**, **Doshi, T.**, Kim, M., Fonua, M., Bernstein, M. Flash Organizations: Crowdsourcing Complex Work by Structuring Crowds As Organizations. 2017. *CHI 2017: SIGCHI Conference on Human Factors in Computing Systems*. **Best Paper.**
- [12] **Alkhatib, A.**, Bernstein, M., Levi, M. Examining Crowd Work and Gig Work Through The Historical Lens of Piecework. 2017. *CHI 2017: SIGCHI Conference on Human Factors in Computing Systems*. **Best Paper honorable mention.**

- [13] *Kokkalis, N., Fan, C., Roith, J., Bernstein, M., Klemmer, S. MyriadHub: Efficiently Scaling Personalized Email Conversations with Valet Crowdsourcing. CHI 2017: SIGCHI Conference on Human Factors in Computing Systems. Best Paper honorable mention.*
- [14] **Cheng, J.,** Bernstein, M., Danescu-Niculescu-Mizil, C., Leskovec, J. Anyone Can Become a Troll: Causes of Trolling Behavior in Online Discussions. 2017. *CSCW 2017: ACM Conference on Computer-Supported Cooperative Work and Social Computing. Best Paper.*
- [15] **Salehi, N.,** McCabe, A., Valentine, M., and Bernstein, M. Huddler: Convening Stable and Familiar Crowd Teams Despite Unpredictable Availability. 2017. *CSCW 2017: ACM Conference on Computer-Supported Cooperative Work and Social Computing.*
- [16] **Kim, J.,** Sterman, S., Cohen, A.A.B., and Bernstein, M. Mechanical Novel: Crowdsourcing Complex Work through Reflection and Revision. 2017. *CSCW 2017: ACM Conference on Computer-Supported Cooperative Work and Social Computing.*
- [17] **Kim, J.,** Agrawala, M., and Bernstein, M. Mosaic: Designing Online Creative Communities for Sharing Works-in-Progress. 2017. *CSCW 2017: ACM Conference on Computer-Supported Cooperative Work and Social Computing. Best Paper honorable mention.*
- [18] *Kokkalis, N., Fan, C., and Bernstein, M. Founder Center: Enabling Access to Collective Social Capital. 2017. CSCW 2017: ACM Conference on Computer-Supported Cooperative Work and Social Computing.*
- [19] Hata, K., **Krishna, R.,** Fei-Fei, L., and Bernstein, M. A Glimpse Far into the Future: Understanding Long-term Crowd Worker Accuracy. 2017. *CSCW 2017: ACM Conference on Computer-Supported Cooperative Work and Social Computing.*
- [20] *Mark E. Whiting, Dilrukshi Gamage, Aaron Gilbee, Snehal Gaikwad, Shirish Goyal, Aipta Ballav, Dinesh Majeti, Nalin Chhibber, Freddie Vargus, Teo Moura, Angela Richmond-Fuller, Varshine Chandrakanthan, Gabriel Bayomi Tinoco Kalejaiye, Tejas Seshadri Sarma, Yoni Dayan, Adam Ginzberg, Mohammed Hashim Kambal, Kristy Milland, Sayna Parsi, Catherine A. Mullings, Henrique Orefice, Sekandar Matin, Vibhor Sehgal, Sharon Zhou, Akshansh Sinha, Jeff Regino, Rajan Vaish, Michael S. Bernstein. Crowd Guilds: Worker-led Reputation and Feedback on Crowdsourcing Platforms. 2017. CSCW 2017: ACM Conference on Computer-Supported Cooperative Work and Social Computing.*
- [21] Lu, C., **Krishna, R.,** Bernstein, M., and Fei-Fei, L. Visual Relationship Detection with Language Priors. 2016. *ECCV 2016: European Conference on Computer Vision. Oral presentation.*
- [22] Gaikwad, S.S., Morina, D., Ginzberg, A., Mullings, C., Goyal, S., Gamage, D., Diemert, C., Burton, M., **Zhou, S., Whiting, M.,** Ziulkoski, K., Ballav, A., Gilbee, A., Niranga, S.S., Sehgal, V., Lin, J., Kristianto, L., Richmond-Fuller, A., Regino, J., Chhibber, N., Majeti, D., Sharma, S., Mananova, K., Dhakal, D., Dai, W., Purynova, V., Sandeep, S., Chandrakanthan, V., Sarma, T., Matin, S., Nassar, A., Nistala, R., Stolzoff, A., Milland, K., Mathur, V., Vaish, R., and Bernstein, M. Boomerang: Rebounding the Consequences of Reputation Feedback on Crowdsourcing Platforms. 2016. *UIST 2016: ACM Symposium on User Interface Software and Technology.*
- [23] **Fast, E.,** and Bernstein, M. Meta: Enabling Programming Languages to Learn from the Crowd. 2016. *UIST 2016: ACM Symposium on User Interface Software and Technology.*
- [24] **Fast, E.,** Vachovsky, T., and Bernstein, M. Shirtless and Dangerous: Quantifying Linguistic Signals of Gender Bias in an Online Fiction Writing Community. 2016. *ICWSM 2016: AAAI Conference on Weblogs and Social Media.*
- [25] **Fast, E.,** Chen, B., and Bernstein, M. Empath: Understanding Topic Signals in Large-Scale Text. 2016. *CHI 2016: SIGCHI Conference on Human Factors in Computing Systems. Best Paper.*
- [26] **Fast, E.,** McGrath, W., Rajpurkar, P., and Bernstein, M. Augur: Mining Human Behaviors from Fiction to Power Interactive Systems. 2016. *CHI 2016: SIGCHI Conference on Human Factors in Computing Systems. Best Paper honorable mention.*
- [27] **Krishna, R.,** Hata, K., Chen, S., Kravitz, J., Shamma, D., Fei-Fei, L., and Bernstein, M. Embracing Error to Enable Rapid Crowdsourcing. 2016. *CHI 2016: SIGCHI Conference on Human Factors in Computing Systems.*
- [28] Suzuki, R., **Salehi, N.,** Lam, M., Marroqin, J., and Bernstein, M. Atelier: Repurposing Expert Crowdsourcing Tasks as Micro-internships. 2016. *CHI 2016: SIGCHI Conference on Human Factors in Computing Systems.*

- [29] Ikeda, K., and Bernstein, M. Pay It Backward: Per-Task Payments on Crowdsourcing Platforms Reduce Productivity. 2016. *CHI 2016: SIGCHI Conference on Human Factors in Computing Systems*.
- [30] Zhu, Y., Groth, O., Bernstein, M., and Fei Fei, L. Visual7W: Grounded Question Answering in Images. 2016. *CVPR 2016*.
- [31] **Salehi, N.**, Irani, L., Bernstein, M., **Alkhatib, A.**, Ogbe, E., Milliland, K., and Clickhappier. We Are Dynamo: Overcoming Stalling and Friction in Collective Action for Crowd Workers. 2015. *CHI 2015: SIGCHI Conference on Human Factors in Computing Systems*. **Best Paper honorable mention.**
- [32] **Cheng, J.**, Teevan, J., Iqbal, S., and Bernstein, M. Break It Down: A Comparison of Macro- and Microtasks. 2015. *CHI 2015: SIGCHI Conference on Human Factors in Computing Systems*. **Best Paper honorable mention.**
- [33] **Cheng, J.**, Teevan, J., and Bernstein, M. Measuring Crowdsourcing Effort with Error-Time Curves. 2015. *CHI 2015: SIGCHI Conference on Human Factors in Computing Systems*. **Best Paper honorable mention.**
- [34] **Kim, J.**, Dontcheva, M., Li, W., Bernstein, M., and Steinsapir, D. Motif: Supporting Novice Creativity through Expert Patterns. 2015. *CHI 2015: SIGCHI Conference on Human Factors in Computing Systems*. **Best Paper honorable mention.**
- [35] Lasecki, W., Kim, J., Rafter, N., Sen, O., Bigam, J., and Bernstein, M. Apparition: Crowdsourced User Interfaces That Come To Life As You Sketch Them. 2015. *CHI 2015: SIGCHI Conference on Human Factors in Computing Systems*. **Best Paper honorable mention.**
- [36] Johnson, J., **Krishna, R.**, Stark, M., Li-Jia Li, Shamma D., Bernstein, M., and Fei-Fei, L. Image Retrieval using Scene Graphs. 2015. *CVPR 2015: Computer Vision and Pattern Recognition*.
- [37] **Kulkarni, C.**, Bernstein, M., and Klemmer, S. Rapid peer feedback in MOOCs emphasizes iteration and improves performance. 2015. *Learning@Scale 2015*.
- [38] Kotturi, Y., **Kulkarni, C.**, Bernstein, M., and Klemmer, S. 2015. Structure and messaging techniques for online peer learning systems that increase stickiness. *Learning@Scale 2015*.
- [39] **Cheng, J.**, and Bernstein, M. Flock: Hybrid Crowd-Machine Learning Classifiers. 2015. *CSCW 2015: ACM Conference on Computer-Supported Cooperative Work*. **Best Paper honorable mention.**
- [40] **Kulkarni, C.**, Cambre, J., Kotturi, Y., Bernstein, M., and Klemmer, S. Making Distance Matter with Small Groups in Massive Classes. 2015. *CSCW 2015: ACM Conference on Computer-Supported Cooperative Work*.
- [41] **Retelny, D.**, Robaszkiewicz, S., To, A., Lasecki, W., Patel, J., Rahmati, N., Doshi, T., Valentine, M., and Bernstein, M. Expert Crowdsourcing with Flash Teams. 2014. *UIST 2014: ACM Symposium on User Interface Software and Technology*. **Best Paper award.**
- [42] Verroios, V., and Bernstein, M. Context Trees: Crowdsourcing Global Understanding from Local Views. 2014. *HCOMP 2014: AAAI Conference on Human Computation and Crowdsourcing*.
- [43] Demiralp, Ç., Bernstein, M., and Heer, J. Learning Perceptual Kernels for Visualization Design. 2014. *InfoVis 2014: IEEE Transactions on Visualization and Computer Graphics*.
- [44] **Fast, E.**, Steffee, D., Wang, L., and Bernstein, M. Emergent, Crowd-scale Programming Practice in the IDE. 2014. *CHI 2014: SIGCHI Conference on Human Factors in Computing Systems*.
- [45] Vaish, R., Wyngarden, K., Chen, J., Cheung, B., Bernstein, M. Twitch Crowdsourcing: Crowd Contributions in Short Bursts of Time. 2014. *CHI 2014: SIGCHI Conference on Human Factors in Computing Systems*.
- [46] Deng, J., Russakovsky, O., Krause, J., Bernstein, M., Berg, A., and Fei-Fei, L. Scalable Multi-label Annotation. 2014. *CHI 2014: SIGCHI Conference on Human Factors in Computing Systems*.
- [47] Bakshy, E., Eckles, D., Bernstein, M. Advanced Internet Experimentation with PlanOut. 2014. *WWW 2014: International World Wide Web Conference*.
- [48] **Kulkarni, C.**, Socher, R., Bernstein, M., Klemmer, S. Scaling Short-answer Grading by Combining Peer Assessment with Algorithmic Scoring. *Learning@Scale 2014*.
- [49] **Cheng, J.**, Bernstein, M. Catalyst: Triggering Collective Action with Thresholds. 2014. *CSCW 2014: ACM Conference on Computer-Supported Cooperative Work*.

- [50] **Kim, J., Cheng, J.,** Bernstein, M. Ensemble: Exploring Complementary Strengths of Leaders and Crowds in Creative Collaboration. 2014. *CSCW 2014: ACM Conference on Computer-Supported Cooperative Work*.
- [51] **Fast, E.,** Lee, C., Aiken, A., Bernstein, M., Koller, D., and Smith, E. Crowd-scale Interactive Formal Reasoning and Analytics. 2013. *UIST 2013: ACM Symposium on User Interface Software and Technology*.
- [52] Bernstein, M., Bakshy, E., Burke, M., and Karrer, B. Quantifying the Invisible Audience in Social Networks. 2013. *CHI 2013: SIGCHI Conference on Human Factors in Computing Systems*. **Best Paper honorable mention.**
- [53] *Kokkalis, N.,* Koehn, T., Pfeiffer, C., Chorneyi, D., Bernstein, M., and Klemmer, S. EmailValet: Managing Email Overload through Private, Accountable Crowdsourcing. 2013. *CSCW 2013: ACM Conference on Computer-Supported Cooperative Work*.
- [54] Kittur, A., Nickerson, J., Bernstein, M., Gerber, E., Shaw, A., Zimmerman, J., Lease, M., and Horton, J. The Future of Crowd Work. 2013. *CSCW 2013: ACM Conference on Computer-Supported Cooperative Work*.
- [55] Bernstein, M., Teevan, J., Dumais, S., Liebling, D., and Horvitz, E. Direct Answers for Search Queries in the Long Tail. 2012. *CHI 2012: SIGCHI Conference on Human Factors in Computing Systems*. **Best Paper honorable mention.**
- [56] Bernstein, M., Karger, D.R., Miller, R.C., and Brandt, J. Analytic Methods for Optimizing Realtime Crowdsourcing. 2012. *CI 2012: Collective Intelligence*.
- [57] André, P., Bernstein, M., and Luther, K. 2012. Who Gives A Tweet? Evaluating Microblog Content Value. *CSCW 2012: ACM Conference on Computer-Supported Cooperative Work*. **Best Short Paper honorable mention.**
- [58] Bernstein, M., Brandt, J., Miller, R.C., and Karger, D.R. 2011. Crowds in Two Seconds: Enabling Realtime Crowd-Powered Interfaces. *UIST 2011: ACM Symposium on User Interface Software and Technology*.
- [59] Xiao, X., Bernstein, M., Yao, L., Lakatos, D., Gust, L., Acquah, K., Ishii, H. 2011. PingPong++: Community Customization in Games and Entertainment. *ACE 2011: ACM Conference on Advances in Computer Entertainment Technology*.
- [60] Bernstein, M., Monroy-Hernandez, A., Harry, D., André, P., Panovich, K., and Vargas, G. 2011. 4chan and /b/: An Analysis of Anonymity and Ephemerality in a Large Online Community. *ICWSM 2011: AAAI Conference on Weblogs and Social Media*. **Best Paper award.**
- [61] Marcus, A., Bernstein, M., Badar, O., Karger, D.R., Madden, S., and Miller, R.C. 2011. TwitInfo: Aggregating and Visualizing Microblogs for Event Exploration. *CHI 2011: SIGCHI Conference on Human Factors in Computing Systems*.
- [62] Bernstein, M., Miller, R.C., Little, G., Ackerman, M., Hartmann, B., Karger, D.R., Crowell, D., and Panovich, K. 2010. Soylent: A Word Processor with a Crowd Inside. *UIST 2010: ACM Symposium on User Interface Software and Technology*. **Best Student Paper award.**
- [63] Bernstein, M., Suh, B., Hong, L., Chen, J., Kairam, S., and Chi, E.H. 2010. Eddi: Interactive Topic-Based Browsing of Social Status Streams. *UIST 2010: ACM Symposium on User Interface Software and Technology*.
- [64] Bernstein, M., Marcus, A., Karger, D.R., and Miller, R.C. 2010. Enhancing Directed Content Sharing on the Web. *CHI 2010: SIGCHI Conference on Human Factors in Computing Systems*.
- [65] Chen, J., Nairn, R., Nelson, L., Bernstein, M., and Chi, E.H. Short and Tweet: Experiments on Recommending Content from Information Streams. *CHI 2010: SIGCHI Conference on Human Factors in Computing Systems*.
- [66] Bernstein, M., Tan, D., Smith, G., Czerwinski, M., and Horvitz, E. 2009. Collabio: A Game for Annotating People within Social Networks. *UIST 2009: ACM Symposium on User Interface Software and Technology*.
- [67] 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. *CHI 2009: SIGCHI Conference on Human Factors in Computing Systems*. **Best Short Paper honorable mention.**
- [68] Bernstein, M., Sharger, J., and Winograd, T. 2008. Taskposé: Exploring Fluid Boundaries in a Task-Based Window Manager. *UIST 2008: ACM Symposium on User Interface Software and Technology*.

- [69] 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. *UIST 2008: ACM Symposium on User Interface Software and Technology*.
- [70] 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*.
- [71] 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*. **Best Paper award**.

### Refereed Journal Publications

- [72] Salehi, N., Bernstein, M. 2018. Ink: Increasing Worker Agency to Reduce Friction in Hiring Crowd Workers. *ACM Transactions on Computer-Human Interaction (TOCHI)*, 25(2).
- [73] Krishna, R., Zhu, Y., Groth, O., Johnson, J., Hata, K., Kravitz, J., Chen, S., Kalantidis, Y., Jia-Li, L., Shamma, D.A., Bernstein, M., Fei-Fei, L. 2017. Visual Genome: Connecting Language and Vision Using Crowdsourced Dense Image Annotations. *International Journal of Computer Vision (IJCV)*.
- [74] Russakovsky, O., Deng, J., Su, H., Krause, J., Satheesh, S., Ma, S., Huang, Z., Karpathy, A., Khosla, A., Bernstein, M., Berg, A.C. and Fei-Fei, L. 2015. ImageNet Large Scale Visual Recognition Challenge. *International Journal of Computer Vision (IJCV)*.
- [75] Bernstein, M., Tan, D., Smith, G., Czerwinski, M., and Horvitz, E. Personalization via Friendsourcing. 2010. *ACM Transactions on Computer-Human Interaction (TOCHI)*, 17(2).
- [76] 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 (TOIS)*, 26(4).

### Software

- [77] Daemon crowdsourcing platform, as part of the Stanford Crowd Research Collective. Released open-source and launched as a research platform at <https://www.daemo.org>.
- [78] PlanOut web experimentation framework. Developed with Eytan Bakshy and Dean Eckles. Released open-source. Others have since ported the system to PHP, Java, Ruby, Go, and Javascript.

### Books

- [79] Malone, T., and Bernstein, M., Editors. 2015. *The Handbook of Collective Intelligence*. MIT Press. **Outstanding Academic Title citation, American Library Association Choice**.

### Book Chapters

- [80] Bigham, J., Bernstein, M., and Adar, E. Human-Computer Interaction and Collective Intelligence. In Malone, T. and Bernstein, M., Editors. *Collective Intelligence Handbook*. MIT Press, 2015.
- [81] Little, G., Miller, R.C., Chou, V., Bernstein, M., Lau, T., Cypher, A. Sloppy Programming. In Cypher, A., Dontheva, M., Lau, T., and Nichols, J., Editors. *No Code Required: Giving Users Tools to Transform the Web*. Burlington: Morgan Kaufmann, 2010.

### Juried Nonarchival Papers, Posters, Videos, Works in Progress, Demonstrations

- [82] Krishna, R., Lee, D., Fei-Fei, L., Bernstein, M. 2018. Engagement Learning: Expanding Visual Knowledge by Engaging Online Participants. In *UIST 2018*.
- [83] Zhou, S., Mu, T., Goel, K., Bernstein, M., Brunskill, E. 2018. Shared Autonomy for Interactive Systems. In *UIST 2018*.
- [84] Whiting, M., Gamage, D., Goyal, S., Gilbee, A., Majeti, D., Fuller, A., Salih, M., Sarma, T., Mathur, V., Pandey, M., Gaikwad, S., Vaish, R., and Bernstein, M. Designing a constitution for a self-governing crowdsourcing marketplace. In *Collective Intelligence 2017*.
- [85] Valentine, M., Bernstein, M., and Retelny, D. 2016. Crowd organizations: crowdsourcing complex work via reconfigurable organizational structures. In *Collective Intelligence 2016*.

- [86] **Metaxa-Kakavouli, D.**, Rusak, G., Teevan, J., Bernstein, M. The Web Is Flat: The Inflation of Uncommon Experiences Online. In *CHI 2016*. **Best paper, late-breaking work.**
- [87] Gaikwad, S., Morina, D., Nistala, R., Agarwal, M., Cossette, A., Bhanu, R., Savage, S., Narwal, V., Rajpal, K., Regino, J., Mithal, A., Ginzberg, A., Nath, A., R. Ziulkoski, K., Cossette, T., Gamage, D., Richmond-Fuller, A., Suzuki, R., Herrejon, J., V. Le, K., Flores-Saviaga, C., Thilakarathne, H., Gupta, K., Dai, W., Sastry, A., Goyal, S., Rajapakshe, T., Abolhassani, N., Xie, A., Reyes, A., Ingle, S., Jaramillo, V., . Godinez, M., Angel, W., Godinez, M., Toxtli, C., Flores, J., Gupta, A., Sethia, V., Padilla, D., Milland, K., Setyadi, K., Wajirasena, N., Batagoda, M., Cruz, R., Damon, J., Nekkanti, D., Sarma, T., . Saleh, M., Gongora-Svartzman, G., Bateni, S., Toledo-Barrera, G., Pena, A., Compton, R., Aariff, D., Palacios, L., P. Ritter, M., ha K.K., Ni, Kay, A., Uhrmeister, J., Nistala, S., Esfahani, M., Bakiu, E., Diemert, C., Matsumoto, L., Singh, M., Jaramillo-Lopez, V., Patel, K., **Krishna, R., Kovacs, G.**, Vaish, R., Bernstein, M. 2015. Daemo: a Self-Governed Crowdsourcing Marketplace. In *UIST 2015*.
- [88] **Salehi, N.**, Bernstein, M. 2015. Drawing Crowds out of Markets and Into Users' Just-in-Time Needs. In *Collective Intelligence 2015*.
- [89] Vaish, R., Davis, J., Bernstein, M. 2015. Crowdsourcing the Research Process. In *Collective Intelligence 2015*.
- [90] **Kim, J.**, Bagla, A., Bernstein, M. 2015. Designing Creativity Support Tools for Failure. In *Creativity and Cognition 2015*.
- [91] **Fast, E.**, Rajpurkar, P., Bernstein, M. 2015. Text Mining Human Behaviors for Interactive Systems. In *CHI 2015*.
- [92] Pandey, V., Kotturi, Y., **Kulkarni, C.**, Bernstein, M., and Klemmer, S. Connecting Stories and Pedagogy Increases Participant Engagement in Discussions. In *Learning@Scale 2015*.
- [93] Embiricos, A., **Rahmati, N.**, Zhu, N., and Bernstein, M. Structured handoffs in expert crowdsourcing improve communication and work output. 2014. In *UIST 2014*.
- [94] **Retelny, D.**, Robaszekiewicz, S., To, A., Bernstein, M. Expert Crowdsourcing with Flash Teams. 2013. In *CrowdConf 2013*.
- [95] Marcus, A., Bernstein, M., Badar, O., Karger, D.R., Madden, S., Miller, R.C. 2011. Tweets as Data: Demonstration of TweepQL and TwitInfo. In *SIGMOD 2011 Demos*.
- [96] Bernstein, M., Ackerman, M.A., Chi, E.H., and Miller, R.C. The Trouble with Social Computing Systems Research. 2011. In *alt.chi 2011: Extended Abstracts of CHI 2011*.
- [97] Bernstein, M., André, P., Luther, K., Poole, E., Solovey, E., Paul, S., Kane, S., and Grudin, J. CHistory. 2009. In *CHI 2009: SIGCHI Conference on Human Factors in Computing Systems*. Most Entertaining Video award.
- [98] Bernstein, M., Van Kleek, M., schraefel, mc, and Karger, D.R. 2007. Management of Personal Information Scraps. 2007. In *Extended Abstracts of CHI 2007: Work-in-progress*. People's Choice award.
- [99] 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*.
- [100] Hartmann, B., Klemmer, S.R., Bernstein, M., and Mehta, N. 2005. *d.tools: Visually Prototyping Physical UIs through Statecharts*. In *Conference Supplement to UIST 2005: Demonstrations*. Seattle, WA, October 2005.

### Magazine Articles

- [101] Bernstein, M., Miller, R.C., Little, G., Ackerman, M., Hartmann, B., Karger, D.R., Crowell, D., and Panovich, K. 2015. Soy lent: A Word Processor with a Crowd Inside. Research Highlight, *Communications of the ACM*.
- [102] Marcus, A., Bernstein, M., Badar, O., Karger, D.R., Madden, S., and Miller, R.C. Processing and Visualizing the Data in Tweets. *SIGMOD Record* 40, 4 (2012).
- [103] Bernstein, M. Doing work, or Doing Work? *Communications of the ACM* 53, 8 (Aug. 2010), 8-9.

### Workshop Papers

- [104] Bernstein, M. 2016. Working for the Machine. In *Proceedings of the 2016 CHI Workshop on Productivity Decomposed*.
- [105] Bernstein, M., Kairam, S., Suh, B., Hong, L., and Chi, E.H. 2010. A Torrent of Tweets: Managing Information Overload in Online Social Streams. In *Proceedings of the 2010 CHI Workshop on Microblogging: What and How Can We Learn from It?*

- [106] André, P., schraefel, mc, Bernstein, M., Dix, A., Luther, K., and White, R. Designing for Schadenfreude (or, how to express well-being and see if you're boring people). In *Proceedings of the 2010 CHI Workshop on Microblogging: What and How Can We Learn from It?*
- [107] Suh, B., Hong, L., Convertino, G., Chi, E.H., and Bernstein, M. Sensemaking with Tweeting. In *Proceedings of the 2010 CHI Workshop on Microblogging: What and How Can We Learn from It?*
- [108] Bernstein, M., Marcus, A., Karger, D.R., and Miller, R.C. 2010. Who am I? Two-four-six-oh-one! In *Proceedings of the 2010 CSCW Workshop on Revisiting Research Ethics in the Facebook Era*.
- [109] 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*.
- [110] 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*.
- [111] 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*.
- [112] 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*.

### **Exhibitions**

- [113] Streaming crowd data from PingPong++ embedded in:  
Dublon, G., Pardue, L., Mayton, B., Swartz, N., Hurst, P., Joliat, N., and Paradiso, J. 2011. Doppellab. Ars Electronica.

### **Patents**

- [114] Teevan, J., Dumais, S.T., Bernstein, M.S., Horvitz, E., Morris, M., Jeong, J., Liebling, D. 2016. Providing crowdsourced answers to information needs presented by search engine and social networking application users.
- [115] Bernstein, M., Hong, L., Chi, E., and Suh, B. 2014. System and method for identifying topics for short text communications.

## **Professional Activities**

### **Program Committee Chair**

- 2019 UIST: ACM Symposium on User Interface Software and Technology
- 2017 Collective Intelligence

### **Program Committee**

- 2018 ACM UIST
- 2017 ACH CHI  
ACM CSCW
- 2016 ACM CHI
- 2015 ACM UIST
- 2014 ACM UIST  
ACM CSCW
- 2013 ACM WWW  
AAAI HCOMP  
AAAI ICWSM
- 2012 AAI HCOMP  
AAAI ICWSM
- 2011 ACM UIST  
AAAI ICWSM



### **Associate Editor**

- 2016– ACM Transactions on Social Computing
- 2012 IEEE Computing, special issue on crowdsourcing
- 2011–2012 CrowdResearch.org blog
- 2010–2011 ACM XRDS magazine (formally Crossroads)

### **Venue Chair**

- 2012 ACM CHI videos chair, Technical Program  
Collective Intelligence proceedings chair  
CHI workshop on Rapidly Iterating Ideas in Crowdsourcing and Human Computation
- 2011 ACM CHI videos chair, Technical Program  
CHI workshop on Crowdsourcing and Human Computation
- 2010 AAAI UIST student volunteer chair  
AAAI ICWSM program committee
- 2007 General Chair, First Workshop on Human Computer Interaction and Information Retrieval (HCIR)

### **Organizations**

- Founding Organizer, CrowdResearch.org. 2011 – 2014.
- Founding Organizer, BostonCHI Labs research consortium. 2009 – 2012.
- Organizer, MIT CSAIL Human-Computer Interaction Speaker Seminar. 2006 – 2010.
- Invited blogger, ACM Communications of the ACM Blog. 2009 – 2010.

### **University and Departmental Service**

- 2018 CURIS (department undergraduate research) chair  
HCI qualifying exam chair  
Organizer, Stanford Seminar on People, Computers and Design
- 2017 HCI Lecturer search committee  
Symbolic Systems steering committee  
Center for Computational Social Science steering committee  
HCI qualifying exam chair  
Organizer, Stanford Seminar on People, Computers and Design
- 2016 HCI qualifying exam lead creator & chair  
Symbolic Systems steering committee  
Stanford Center for the Study of Language and Information advisory board  
Curriculum committee task force on scaling CS educational capacity  
Organizer, Stanford Seminar on People, Computers and Design
- 2015 VPTL Year of Learning steering committee  
Symbolic Systems steering committee  
Stanford Center for the Study of Language and Information advisory board  
Organizer, Stanford Seminar on People, Computers and Design
- 2014 Online learning ad-hoc committee  
Symbolic Systems steering committee  
Stanford Center for the Study of Language and Information advisory board  
Organizer, Stanford Seminar on People, Computers and Design
- 2013 Symbolic Systems steering committee  
Stanford Center for the Study of Language and Information advisory board

## Presentations

### Invited Plenary Talks and Distinguished Lectures

- [1] *Crowds, Computation, and the Future of Work*  
Pinterest Distinguished Speaker Series. San Francisco, California. July 26 2018.
- [2] *In A Flash: Crowdsourcing Organizations, Teams, and Research*  
Cornell Computer Science Colloquium Series. Ithaca, New York. November 16 2017.
- [3] *In A Flash: Crowdsourcing Organizations, Teams, and Research*  
Carnegie Mellon University HCII Department Seminar. Pittsburgh, Pennsylvania, February 10 2017.
- [4] *Crowdsourcing A Meeting of Minds: Designing the Future of Work*  
Open and User Innovation Conference. Plenary. Boston, Cambridge, August 1 2016.
- [5] *Crowdsourcing A Meeting of Minds: Designing the Future of Work*  
Collective Intelligence. Plenary. New York, New York, June 2 2016.
- [6] *A Meeting of Minds: Enabling Expert Crowdsourcing*  
Accenture Distinguished Lecture Series. San Jose, CA, December 12 2014.
- [7] *Collective Intelligence*  
Kavli Frontiers of Science. Irvine, CA, November 17 2014.
- [8] *Crowd-Powered Systems*  
Vanguard [next]. San Francisco, CA, December 10 2013.
- [9] *Crowd-Powered Systems*  
WebScience SoHuman workshop. Keynote. Paris, France, May 1 2013.

### Other Invited Presentations

- [1] *In A Flash: Crowdsourcing Organizations, Teams, and Research*  
Adobe Research. San Francisco, California. February 14 2017.  
Data On Purpose Conference. Stanford, California, February 8 2017.
- [2] *Crowdsourcing A Meeting of Minds: Designing the Future of Work*  
Microsoft Research Faculty Summit. Redmond, Washington, July 14, 2016.
- [3] *A Meeting of Minds: Enabling Expert Crowdsourcing*  
HCOMP Workshop on Crowdsourcing, Online Education, and MOOCs. Pittsburgh, PA, November 2 2014.  
Google, Mountain View, CA, July 28 2014.  
Foundation Capital, Menlo Park, CA, June 30 2014.  
oDesk, Menlo Park, CA, June 12 2014.  
Stanford Computational Science Conference, Stanford, CA, April 11 2014.
- [4] *Crowd-Powered Systems*  
NIPS crowdsourcing workshop, Lake Tahoe, NV, December 9 2013.  
KredibleNet Workshop, Stanford, CA, October 18 2013.  
Twitter, San Francisco, CA, April 25 2013.  
Stanford Computer Forum, Stanford, CA, April 16 2013.  
Symbolic Systems Forum, Stanford, CA, January 14 2013.  
MediaX, Stanford, CA, January 8 2013.  
Institute for the Future, Palo Alto, CA, November 7 2012.  
CrowdConf, San Francisco, CA, October 23 2012.  
Facebook Data Science, Menlo Park, CA, April 2 2012.  
Microsoft Research, Redmond, WA, March 29 2012.  
Google Research, Mountain View, CA, March 2 2012.  
Microsoft Research New England, Cambridge, MA, January 20 2012.  
IBM Research, Cambridge, MA, May 24 2011.
- [5] *Crowd-Powered Interfaces*  
IBM Research, Haifa, Israel, December 29 2010.

- [6] *Soylent: A Word Processor with a Crowd Inside*  
Cyberlaw: Difficult Issues with Jonathan Zittrain, Harvard University, Cambridge MA, Sept 27 2010.
- [7] *Data for the people, by the people*  
HarambeeNet 2010, Durham, NC, July 9 2010.
- [8] *Crowd-Powered Interfaces*  
DARPA ISAT, Washington D.C., June 24 2010.
- [9] *Personalization via Friendsourcing*  
IBM Research Almaden, CA, July 22 2009.

## Department Seminars

- [1] *Crowds, Computation, and the Future of Work*  
University of Washington. Seattle, Washington. December 5 2018.
- [2] *In A Flash: Crowdsourcing Organizations, Teams, and Research*  
Northwestern University Segal Speaker Series. Evanston, Illinois. May 15 2018.
- [3] *Crowdsourcing A Meeting of Minds: Designing the Future of Work*  
Harvard Digital Seminar. Cambridge, Massachusetts, November 30 2016.  
University of Washington. Seattle, Washington, August 8 2016.
- [4] *Crowdsourcing A Meeting of Minds: Designing the Future of Work*  
New York University, GovLab Seminar. New York, New York, June 2 2016.  
University of Illinois Urbana Champaign HCI Seminar. Urbana, Illinois, December 8 2015.  
NYU IS Seminar. New York, New York, November 6 2015.  
Carnegie Mellon University. Pittsburgh, Pennsylvania, October 27 2015.
- [5] *A Meeting of Minds: Enabling Expert Crowdsourcing*  
UC Berkeley BiD Seminar. Berkeley, CA, March 31 2015.  
University of Toronto. Toronto, Ontario, Canada, March 27 2015.  
University of Waterloo. Waterloo, Canada, March 26 2015.  
UCI Informatics Seminar Series. Irvine, CA, January 16 2015.  
Stanford Liberation Technology Seminar. Stanford, CA, January 15 2015.  
Technion. Haifa, Israel, December 22 2014.
- [6] *Crowd-Powered Systems — Job Talk*  
Drexel University, Philadelphia, PA, August 20 2013.  
University of Illinois at Urbana-Champaign, Urbana, IL, October 16 2012.  
Michigan School of Information, Ann Arbor, MI, March 26 2012.  
Michigan Computer Science and Engineering, Ann Arbor, MI, March 22 2012.  
Carnegie Mellon University, Pittsburgh, PA, March 19 2012.  
UC San Diego Computer Science and Engineering, La Jolla, CA, March 16 2012.  
UC San Diego Cognitive Science, La Jolla, CA, March 14 2012.  
Brown University, Providence, RI, March 8 2012.  
Stanford University, Stanford, CA, March 5 2012.  
University of Washington Computer Science and Engineering, Seattle, WA, February 28 2012.  
Princeton University, Princeton, NJ, February 22 2012.  
University of Washington Information School, Seattle, WA, February 16 2012.  
UC Berkeley, Berkeley, CA, February 7 2012.  
UC Los Angeles, Los Angeles, CA, February 2 2012.  
Columbia University, New York, NY, January 30 2012.
- [7] *Crowd-Powered Systems*  
Emory University, Atlanta, GA, January 27 2012.  
Georgia Institute of Technology, Atlanta, GA, January 26 2012.  
Tufts University, Cambridge, MA, January 19 2012.
- [8] *Crowd-Powered Interfaces*  
Carnegie Mellon University, Pittsburgh, PA, March 1 2011.

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

## Students

### Ph.D. Students: Current

- [1] Geza Kovacs
- [2] Ali Alkhatib
- [3] Ranjay Krishna  
Co-advised with Fei-Fei Li
- [4] Sharon Zhou  
Co-advised with Andrew Ng
- [5] Mitchell Gordon

### Ph.D. Students: Alumni

- [1] Niloufar Salehi  
Assistant Professor at UC Berkeley  
Thesis: “Design for Collective Action”  
Graduated: 2018
- [2] Ethan Fast  
Co-founder at NEX  
Thesis: “Capturing Human Behavior and Language for Interactive Systems”  
Graduated: 2018
- [3] Justin Cheng  
Research scientist on the Facebook Data Science team  
Co-advised with Jure Leskovec  
Thesis: “Antisocial Computing: Explaining and Predicting Negative Behavior Online”  
Graduated: 2017
- [4] Daniela Retelny  
Director of product at B12  
Co-advised with Melissa Valentine (MS&E)  
Thesis: “Expert Crowdsourcing with Flash Teams and Organizations”  
Graduated: 2017
- [5] Joy Kim  
Research scientist at Adobe Research  
Thesis: “Designing Crowdsourcing Techniques Based on Expert Creative Practice”  
Graduated: 2017
- [6] Chinmay Kulkarni  
Assistant Professor at Carnegie Mellon University  
Co-advised with Scott Klemmer  
Thesis: “Structuring Peer Interactions for Learning at Scale”  
Graduated: 2015

### Postdoctoral Scholars: Current

- [1] Mark Whiting  
Appointed: 2017

### Postdoctoral Scholars: Alumni

- [1] Nicolas Kokkalis  
Appointed: 2013

### **Undergraduate Students Supervised (with Publications): Current**

- [1] Drew Mylander Gregory
- [2] Golrokh Emami
- [3] Jacob Ray

### **Undergraduate Students Supervised (with Publications): Alumni**

- [1] Julia Mendelsohn  
Coterm: Stanford  
Date of graduation: 2018
- [2] Catherine Mullings  
PhD: Stanford  
Date of graduation: 2017
- [3] Michelle Lam  
Coterm: Stanford  
Date of graduation: 2017
- [4] Tina Vachovsky  
Date of graduation: 2017
- [5] Allegra Cohen  
PhD: University of Florida  
Date of graduation: 2017
- [6] Juan Carlos Marroquin  
Date of graduation: 2017
- [7] Andrew McCabe  
Coterm: Learning Design & Technology  
Date of graduation: 2017
- [8] Pranav Rajpurkar  
Coterm: Stanford  
Date of graduation: 2016
- [9] Adam Ginzberg  
Coterm: Stanford  
Date of graduation: 2016
- [10] Julia Cambre  
PhD: Carnegie Mellon  
Date of graduation: 2015
- [11] Tulsee Doshi  
Coterm: Stanford  
Date of graduation: 2015
- [12] Keith Wyngarden  
Date of graduation: 2015
- [13] Evawere Ogbe  
Date of graduation: 2014
- [14] Jay Patel  
Coterm: Stanford  
Date of graduation: 2014
- [15] Daniel Steffee  
Coterm: Stanford  
Date of graduation: 2014
- [16] Alexandra To  
Coterm: Stanford  
Date of graduation: 2014

### **Master's Student Supervised (with Publications): Current**

- [1] Michelle Lam  
Expected date of graduation: 2019

### **Master's Student Supervised (with Publications): Alumni**

- [1] Jay Patel  
Admitted to PhD: UC San Diego  
Date of graduation: 2018
- [2] Kenji Hata  
Admitted to PhD: Princeton  
Date of graduation: 2017
- [3] Sarah Sterman  
PhD: UC Berkeley  
Date of graduation: 2016
- [4] Ranjay Krishna  
PhD: Stanford  
Date of graduation: 2016
- [5] Alexandra To  
PhD: Carnegie Mellon  
Date of graduation: 2015
- [6] Jingshu Chen  
Date of graduation: 2015
- [7] Negar Rahmati  
Date of graduation: 2015
- [8] Sebástien Robaszkiewicz  
Date of graduation: 2013