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| Lena Mamykina, Ph.D.  Associate Professor  Department of Biomedical Informatics  Columbia University  CONTACT  622 West 168th St. PH-20  New York, NY 10032  Phone: (212) 305-3923  om2196[at]cumc.columbia.edu  [Download CV](file:////Users/lena/Dropbox/WWW/Lena%252520Mamykina%252520CV%252520022017.pdf) | I am an Assistant Professor of Biomedical Informatics in the Department of Biomedical Informatics at Columbia University. My primary research interests reside in the areas of Biomedical Informatics, Human-Computer Interaction, Ubiquitous and Pervasive Computing, and Computer-Supported Collaborative Work.  My broad research interests include individual and collective cognition, sensemaking and problem-solving in the context of health, health care, and health management. I am particularly interested in designing interactive intelligent systems that use computational inferences to support individuals’ decisions and actions. My research group, **Action Research for Collective Health** **(ARCH)** views health and health management as residing within families, communities, and societies, and as impacted by culture, business, and policy. In ARCH, we develop novel technologies that help individuals to take a proactive stance towards their own health and to change their environment to make healthy and responsible lifestyle accessible to everyone.  At the same time, I am interested in the functioning of the healthcare system and in the ways it adapts to the changing demands and expectations of the society. I study how clinicians collect and use information to make decisions in regards to patient care, how clinicians on patient care teams communicate and coordinate their work and make decisions together, how clinical communities share knowledge and expertise, and how computing technologies facilitate or inhibit these processes.  I received my B.S. in Computer Science from the Ukrainian State University of Maritime Technology, M.S. in Human Computer Interaction from the Georgia Institute of Technology, Ph.D. in Human-Centered Computing from the Georgia Institute of Technology, and M.A. in Biomedical Informatics from Columbia University. My dissertation work at Georgia Tech focused on facilitating reflection and learning in context of diabetes management with mobile and ubiquitous computing. Prior to joining DBMI as a faculty member, I completed a National Library of Medicine Post-Doctoral Fellowship at the department. | **News**  ***NSF-sponsored Workshop on Technology for Automated Capture of Diet, Nutrition, and Eating Behaviors in Context:*** we have completed our 3rd virtual workshop in the series. Next: proposals deadline is November 16th. For more information: <https://sites.google.com/eng.ucsd.edu/diet-tech-nsf-workshop/home>  **Upcoming Travel and Talks**  **Advising**  **Post-Docs**  **PhD Students:**  Elliot Mitchell (DBMI)  Pooja Desai (DBMI)  **MS Students:**  Yixiao (Jessica) Zhang (DBMI)  **Undergraduate:**  **Alumni:**  Marissa Burgemaster, PhD  Maria Hwang, PhD  Elizabeth Heitkemper, PhD  Drashko Nakikj, PhD  Michelle Chau, PhD  Daniel Feller, PhD  Silis Jiang, PhD  Healther Cole-Lewis, PhD  Yishen Miao, MS |
| **Research Projects**  ***Personalized intelligent coaching in diabetes (T2 Coach)***  TBD  ***Personalized predictions in***  The goal of this research is to investigate a new breed of social computing mechanism that blend together the benefits of online health communities, crowdsourcing, and online learning environments.  ***Facilitating interdisciplinary clinical communication***  Increasingly, patient care is delivered by teams of clinicians, who come from different educational backgrounds and often have different priorities in regards to patient care. Yet to provide best care to the patients these clinicians must act as a unified whole with aligned priorities and coordinated actions. This project aims to create new tools for facilitating communication and coordination within interdisciplinary patient care teams with the goal of improving quality of patient care. | **Selected Papers (**[**see full list**](file:///Users/lena/Dropbox/WWW/publications.htm)**)**   |  |  | | --- | --- | |  | ***Structured Scaffolding for Reflection and Problem-Solving in Diabetes Self-Management: Qualitative Study of Mobile Diabetes Detective***  Mamykina, L., Heitkemper, E.M., Smaldone, A.M., Kukafka, R., Cole-Lewis, H., Davidson, P.G., Mynatt, E.D., Tobin, J.N., Cassells, A., Goodman, C., Hripcsak, G.,  J Am Med Inform Assoc. 2016 Jan 14. [Epub ahead of print].  [Link to PubMed](http://www.ncbi.nlm.nih.gov/pubmed/26769910). | |  | ***Adopting the sensemaking perspective for chronic disease self-management***  Lena Mamykina, Arlene M. Smaldone, Suzanne R. Bakken, J Biomed Inform. 2015 Aug;56:406-17. This paper is open-access; [link to PubMed](http://www.ncbi.nlm.nih.gov/pubmed/26071681). | |  | ***Participatory approach to the development of a knowledge base for problem-solving in diabetes self-management***  Heather J Cole-Lewis, Arlene M Smaldone, Patricia R Davidson, Rita Kukafka, Jonathan N Tobin, Andrea Cassells, Elizabeth D Mynatt, George Hripcsak, Lena Mamykina, International Journal of Medical Informatics, 2105, in print. | |  | ***Collective Sensemaking in Online Health Communities***  Lena Mamykina, Drashko Nakjij, Noemie Elhadad, in Proceedings of the ACM SIGCHI conference on Human Factors in Computing Systems, CHI 2015, Seoul, South Korea, April 2015. | |  | ***Clinical documentation: Composition or Synthesis?***  Lena Mamykina, Peter Stetson, David Vawdrey, George Hripcsak, *Journal of American Medical Informatics (JAMIA, 2012 Nov 1;19(6):1025-31).* [Link to PubMed](http://www.ncbi.nlm.nih.gov/pubmed/22813762). | |  | ***Design Lessons from the Fastest Q&A Site in the West***  Lena Mamykina, Bella Manoim, Manas Mittal, George Hripcsak, Bjorn Hartmann, in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, CHI 2011 (Vancouver, CA) [[pdf](file://localhost/papers/p2857-mamykina.pdf)] | |  | ***Examining the Impact of Collaborative Tagging on Sensemaking in Nutrition Management***  Lena Mamykina, Andrew D. Miller, Yevgeny Medynskiy, Catherine Grevet, Patricia R. Davidson, Michael A. Terry, Elizabeth D. Mynatt, in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, CHI 2011 (Vancouver, CA) [[pdf](file://localhost/papers/p657-mamykina.pdf)] | |  | ***Constructing Identities through Storytelling in Diabetes Management***  Lena Mamykina, Andrew D. Miller, Elizabeth D. Mynatt,, in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, CHI 2010 (Atlanta, GA) [[pdf](file://localhost/papers/p1203-mamykina.pdf)] | |  | ***MAHI: Investigating Social Scaffolding for Reflective Thinking in Diabetes Management***  Lena Mamykina, Daniel Greenblatt, Patricia R., Davidson, Elizabeth D. Mynatt, in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, CHI 2008 (Florence, Italy) [[pdf](file://localhost/papers/p477-mamykina.pdf)] | |