

# DAVID MILLER

## CONTACT

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## EDUCATION

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- Stanford University: PhD in Communications Research, expected 2017  
Concentration in Behavior Design
- New York University: M.A. Individualized Study, 2012.  
Concentration in Behavior Design and Environmental Sustainability
- Cornell University: B.S. Human Factors / Ergonomics, 2005.  
Minor Concentration in Cognitive Studies

## PUBLICATIONS AND PRESENTATIONS

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- Takatalo, J. and Miller, D. (2013) Experience, Engagement, and Shikake. *Proceeding of the AAAI Spring Symposium, Shikakeology: Designing Triggers for Behavior Change*, Palo Alto, California USA.
- *Social Media for Real World Action*: Presented at the 2012 Behavior Energy and Climate Change conference, November 2012.
- *Designing Persuasion into Products for environmental benefit*: Presented at the 2011 Behavior Energy and Climate Change conference, November 2011.
- *Interface-integrated environmental messages' effectiveness in changing user behavior*: Presented at Persuasive 2011: the Sixth International Conference on Persuasive Technology, June 2011.
- How Your Brain is Your Worst Enemy and How Smart Tools Can Help: presented at TEDx Gallatin Art+Science, April 2011.
- *Datachron* Information visualization of real-time power demand: Presented at the NYU Interactive Telecommunications Spring 2011 Show and the August 2011 Ebay Design Expo where it was awarded "best interaction design" by the jury.
- *Quantaproject* Information visualization of the obesity and diabetes epidemics: Presented at the NYU Interactive Telecommunications Program Winter 2010 Show.
- *Thermogen* thermoelectric generation kit: Presented at NYU Interactive Telecommunications Program spring 2010 show.
- *Historical Radio*: Presented at NYU Interactive Telecommunications Program winter 2009 show, featured in Make Magazine "Best of show" column.
- *Human Factors Basics for Industrial Design Students*: Presented at California College of the Arts, The New Jersey Institute of Technology, and at Fashion Institute of Technology.
- *The Learning Curve for Automotive Augmented Reality Systems* – Presented in the open session at the 2005 HFES national conference in Orlando, Florida.

## EXPERIENCE

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- **Persuasive Technology Laboratory** – Stanford University 2010-Present  
Research associate, assisting the Peace Innovation Lab, Calming Technologies Lab and Persuasive technology lab ventures remotely from New York.  
As an intern summer 2010, developed persuasive social media applications to promote healthy behaviors among college students, specifically promoting physical activity and healthy diet, as part of the My Social Health/SMART project.
- **ITP Camp**– New York University Summer 2012  
Instructor, taught classes in behavior design and human factors to summer students and professionals as part of the un-university ITP camp.
- **Center for Design Research** – Stanford University Summer 2009  
Research associate, analyzing the emotions exhibited by design team members during a task-focused discussion, using the SPAFF and RTISS techniques. The goal of this research is to find ways to make design teams more efficient and productive by promoting more positive interactions between team members and reducing interpersonal tensions.
- **Luminary Labs** – New York, NY 2010-2012  
Design research and persuasive technology specialist, developing business strategies and product concepts for multifaceted solutions for lifestyle disease management. Team leader for Social Media Week’s Health|Tech|Food event, developing concepts for comprehensive approaches to improving public health and the food system through social media technologies.
- **United States Ergonomics** – Sea Cliff, NY 2006-2010  
Ergonomics and human factors specialist, performing expert product analysis, human interface design, and ergonomics consulting. Providing office and industrial ergonomics consulting services for major clients, planning and execution of product testing for consumer and industrial products, including ecological and laboratory user testing.
- **Medical Research and Product Development** 2007-2010  
Researcher and product developer, developing environmental interventions and medical products designed around the needs of patients and healthcare providers. Interned with the infectious disease group at Mount Sinai Hospital in New York in the summer of 2008, performing ethnographic research into the work patterns of healthcare providers to inform the development of infection control products and concepts.
- **Cognitive Studies in Context Laboratory** – Cornell University 2005  
Lead researcher, investigated the learning process associated with the use of an in-vehicle road hazard detection and warning system. Developed the conceptual framework of the experiment, wrote the test scripts and driving simulation, and analyzed the resulting data. Presented research findings at HFES 2005.
- **Environmental-Pedagogical Furniture Project** – Cornell University 2003-2005  
Assistant to Professor Jack Elliott, designed and fabricated furniture pieces conveying a message of environmental sustainability; assisted in the development of the Swarfax Lamp (US Pat. D538962) and the waste-integrated design process.

- **CRM Energy** – Chestnut Ridge, NY Summer 2004  
Field technician, supervised change to synthetic lubricants in combined heat and power generator installations, decreasing service frequency and reducing oil consumption 65%.
- **University of Bern-Insel Hospital** – Bern, Switzerland July-August 2003  
Web developer, developed incident reporting website for the hospital and built intraweb for the Experimental-Surgical Institute, including equipment and staff scheduling system.
- **The American Institutes for Research** – Concord, MA May-July 2003  
User interface designer and usability specialist, designed prototype digital-programmable thermostat for the residential HVAC market; performed usability research; assisted in authoring the ISO medical device design guidelines (IEC 60601-1-8:2003).
- **Cornell University Hybrid Electric Vehicle Team** 2002—2003  
Team leader, led a 30 person team in the development of a hybrid electric driveline for a 2002 Ford Explorer; designed the instrument cluster and graphical interface for the driver information system; was the lead author of the technical design report.

#### PATENT

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- US patent 12/215,197 awarded for “Peelable hygienic cover for a Stethoscope”.  
Developed in partnership with Dr. Bruce Hirsch, this system is intended to reduce infection transmission in clinical settings. All patient contact surfaces would be covered by a single-use membrane, eliminating the stethoscope as a vector of disease transmission.

#### PROFESSIONAL AFFILIATIONS

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- **Industrial Designers Society of America**  
New York City Chapter co-chair 2012, vice-chair 2010-2011.  
Formed new partnerships with industry and academic design groups, representing field of industrial design in the New York Area and beyond. Represented IDSA at World Design Capital Helsinki 2012, Managed IDSA’s booth at the International Contemporary Furniture Fair 2012, and assisted with the ICFF booth 2006-2010, providing a venue for smaller designers to exhibit at the premiere furniture and furnishing show in the US. Represented IDSA at Designboom 2011, sponsored by the Cooper-Hewitt National Design Museum. Directed the Human Centered Design conference, 2007.
- **Habit Design Meetup**  
Founder of Habit Design New York and Habit Design Silicon Valley, which promotes dialog on research in habit design between academia, industry, and the public, and explores the application of behavioral science to the design of products and services to help individuals start and maintain positive habits.
- **Human Factors/Ergonomics Society**  
Member of the Product Design and Cognitive Engineering and Decision Making technical groups. National Conference paper reviewer 2007-2011.

## COMMUNITY ACTIVITIES

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- **Cornell University College of Human Ecology CyberMentors Program** 2007-Present  
Advisor to current Cornell Design and Environmental Analysis undergraduate students, providing advice and a perspective from industry and graduate education.
- **New York University Sustainability Task Force** 2011-2012  
Developing and evaluating behavioral and technical solutions to reduce the environmental impact of university operations and student life.  
Green Grants committee member, responsible for evaluating proposals for funding in the largest university environmental grants program in the US.
- **Bike and Build** 2007-2008  
Built houses for needy families while traveling by bicycle from Providence, RI to San Francisco, CA during the summer of 2007. Served as the trip mechanic, maintaining 32 bicycles, trailer, and van. Revised rider gear guide and training manual and assisted with rider training and education on 2008 trips.