

Q. Vera Liao

Research Staff Member
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[Research Interests] Human-computer interaction, human-AI interaction, persuasive design, conversational interface, health informatics, information behavior, social computing, cognitive science.

- [Education]**
- University of Illinois at Urbana-Champaign, Champaign, IL** 2011 - 2016
PhD in Computer Science
Dissertation: “*Information Behavior Nudging: Theory Driven Design for Exposure to Diverse Opinions*”
Committee: Wai-Tat Fu (Advisor), Alex Kirlik, Peter Pirolli, Bruce Schatz
- University of Illinois at Urbana-Champaign, Champaign, IL** 2009 - 2011
Master of Science in Human Factors
Advisor: Wai-Tat Fu
- Tsinghua University, Beijing, China** 2005 - 2009
Bachelor of Science in Industrial Engineering, *focus: Human Factors*
Advisor: Patrick Rau
- [Employment]**
- IBM Thomas J. Watson Research Center, Yorktown Heights, NY** 2016-present
Research Staff Member Manager: Rachel Bellamy
Research on human-agent and human-AI interaction
- IBM Thomas J. Watson Research Center, Cambridge, MA** 2015
Research Intern Mentors: Matthew Davis, Michael Muller
Designed and conducted a field study for a personal AI agent for enterprise information search.
- Palo Alto Research Center (PARC), Palo Alto, CA** 2014
Research Intern Mentors: Victoria Bellotti, Michael Youngblood
Studied how to motivate participation in civic engagement and pro-social peer-to-peer services.
- GESIS- – Leibniz-Institute for the Social Sciences, Cologne, Germany** 2014
Visiting Researcher Mentor: Markus Strohmaier
Studied how different group behaviors shape the opinion spaces for controversial topics on Twitter.
- Palo Alto Research Center (PARC), Palo Alto, CA** 2011
Research Intern Mentor: Peter Pirolli
Studied and modeled how people make credibility judgment of Twitter authors.
- University of Illinois at Urbana-Champaign, Champaign, IL** 2010
Research Assistant Mentor: Daniel Morrow
Conducted user studies for a clinical tool supporting patient-provider collaborative medical planning.
- NetEase, Inc., Guangzhou, China** 2008
User Experience Intern
Conducted user research and usability testing for an online discussion forum.
- [Awards]**
- CHI 2017 Excellent Reviewer** 2017
32nd ACM Conference on Human Factors in Computing Systems
- Andrew and Shana Laursen Fellowship** 2015
Computer Science Department, University of Illinois at Urbana-Champaign

National Science Foundation (NSF) Travel Award IEEE International Conference on Healthcare Informatics	2015
Grace Hopper Conference Travel Funding Computer Science Department, University of Illinois at Urbana-Champaign	2015
Promoting Undergraduate Research in Engineering Best Presentation Award Computer Science Department, University of Illinois at Urbana-Champaign	2015
CHI 2014 Best Paper Award Honorable Mention (C.13) 32 nd ACM Conference on Human Factors in Computing Systems	2014
Travel Grant for Max Planck Summer Institute on Bounded Rationality Max Planck Institute for Human Development, Berlin, Germany	2013
Promoting Undergraduate Research in Engineering (PURE) Mentor Award Computer Science Department, University of Illinois at Urbana-Champaign	2013
HASTAC Scholarship Institute for Computing in Humanities, Arts and Social Science	2013
Conference Travel Award Graduate College, University of Illinois at Urbana-Champaign	2013, 2015
Data Science Summer Institute (DSSI) Scholarship Data Science Summer Institute, University of Illinois at Urbana-Champaign	2012
Conference Travel Award SBP Conference	2012
3rd Place in ACM Student Research Competition (P.2) ACM CHI Conference 2011, Vancouver, BC	2011
Scholarship for Academic Excellence Tsinghua University, Beijing, China	2006

[Publications]

Journal Articles

- J.4 What's in it for me? Self-serving versus Other-oriented Framing in Messages Advocating Use of Prosocial Peer-to-peer services
Q. Vera Liao, Rajan Vaish (co-first author), Victoria Bellotti
International Journal of Human-Computer Studies
- J.3 Age Differences in Credibility Judgment of Online Health Information
Q. Vera Liao, Wai-Tat Fu
ACM Transactions on Computer-Human Interaction (TOCHI)
- J.2 An EMR-based Tool to Support Collaborative Planning for Medication Use Among Adults with Diabetes: Design of a Multi-Site Randomized Control Trial
Daniel G. Morrow, Thembi Conner-Garcia, James F. Graumlich, Michael S. Wolf, Stacey McKeever, Anna Madison, Kathryn Davis, Elizabeth A.H. Wilson, **Vera Liao**, Chieh-Li Chin, Darren Kaiser
Contemporary Clinical Trials 33 (2012), 1023-1032
- J.1 Factors Influencing Mobile Advertising Avoidance
Pei-Luen Patrick Rau, **Qingzi Liao**, Cuiling Chen
International Journal of Mobile Communication 11, 2(2013), 123-139

Peer Reviewed Conference Papers

* **Note:** conferences are top-tier publication venues for Computer Science and HCI research.

- C.22 All Work and no Play? Conversations with a Question-and-Answer Chatbot in the Wild
Q. Vera Liao, Muhammed Mas-ud Hussain, Praveen Chandar, Matthew Davis, Marco Crasso, Dakuo Wang, Michael Muller, N. Sadat Shami, Werner Geyer
To appear in ACM Conference on Human Factors in Computing Systems (CHI 2018)
- C.21 Face Value? Exploring the Effects of Embodiment for a Group Facilitation Agent
Amench Shamekhi, **Q. Vera Liao**, Dakuo Wang, Rachel Bellamy, Thomas Erickson
To appear in ACM Conference on Human Factors in Computing Systems (CHI 2018)
- C.20 Towards an Optimal Dialog Strategy for Information Retrieval using Open- and Close-ended Questions
Yunfeng Zhang, **Q. Vera Liao**, Biplav Srivastava
To appear in ACM Conference on Intelligent User Interfaces (IUI 2018)
- C.19 Exploring AI Values and Ethics through Participatory Design Fictions
Michael Muller, **Q. Vera Liao**
Human Computer Interaction Consortium (HCIC 2017)
- C.18 Leveraging Conversational Agent to Assist New Hires during Onboarding
Praveen Chandar, Yasaman Khazaeni, Matthew Davis, Michael Muller, Marco Crasso, **Q. Vera Liao**, N. Sadat Shami, Werner Geyer
International Conference on Human-Computer Interaction (INTERACT 2017)
- C.17 Improvising Harmony: Opportunities for Technologies to Support Crowd Orchestration
Q. Vera Liao, Victoria Bellotti, Michael Youngblood
ACM Conference on Supporting Group Work (GROUP 2016)
- C.16 What Can You Do? Studying Social-Agent Orientation and Agent Proactive Interactions with an Agent for Employees
Q. Vera Liao, Matthew Davis, Werner Geyer, Michael Muller, N. Sadat Shami
ACM Conference on Designing for Interactive Systems (DIS 2016)
- C.15 #Snowden: Understanding Biases Introduced by Behavioral Differences of Opinion Groups on Social Media
Q. Vera Liao, Wai-Tat Fu, Markus Strohmaier
ACM Conference on Human Factors in Computing Systems (CHI 2016)
- C.14 It is All About Perspective: An Exploration of Mitigating Selective Exposure with Aspect Indicators
Q. Vera Liao, Wai-Tat Fu, Sri Shilpa Mamidi
ACM Conference on Human Factors in Computing Systems (CHI 2015)
- C.13 Expert Voices in Echo Chambers: Effects of Source Expertise Indicators on Exposure to Diverse Opinions
Q. Vera Liao, Wai-Tat Fu
ACM Conference on Human Factors in Computing Systems (CHI 2014)
*** Best Paper Award Honorable Mention**
- C.12 Can You Hear Me Now? Mitigating the Echo Chamber Effect by Source Position Indicators
Q. Vera Liao, Wai-Tat Fu
ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW 2014)
- C.11 Aggregating Personal Health Messages for Scalable Comparative Effectiveness Research
Jason Cho, **Q. Vera Liao**, Yunliang Jiang, Bruce Schatz
ACM Conference on Bioinformatics, Computational Biology and Biomedical Informatics (BCB 2013)

- C.10 Beyond the Filter Bubble: Interactive Effects of Perceived Threat and Topic Involvement on Selective Exposure to Information
Q. Vera Liao, Wai-Tat Fu
ACM Conference on Human Factors in Computing Systems (CHI 2013)
- C.9 Understanding Experts' and Novices' Expertise Judgment of Twitter Users
Q. Vera Liao, Claudia Wagner, Peter Pirolli, Wai-Tat Fu
ACM Conference on Human Factors in Computing Systems (CHI 2012)
- C.8 An ACT-R Model of Credibility Judgment of Micro-blogging Web Pages
Q. Vera Liao, Peter Pirolli, Wai-Tat Fu
International Conference on Cognitive Modeling (ICCM 2012)
- C.7 Designing and Evaluating a Clustering System for Organizing and Integrating Patient Drug Outcomes in Personal Health Messages
Yunliang Jiang, **Q. Vera Liao**, Qian Cheng, Richard Berlin, Bruce Schatz
Annual Symposium of the American Medical Informatics Association (AMIA 2012)
- C.6 It's Not in Their Tweets: Modeling Topical Expertise of Twitter Users
Claudia Wagner, **Vera Liao**, Peter Pirolli, Les Nelson, Markus Strohmaier
ASE/IEEE International Conference on Social Computing (SocialCom 2012)
- C.5 Information and Attitude Diffusion in Networks
Wai-Tat Fu, **Q. Vera Liao**
International Conference on Social Computing, Behavioral-Cultural Modeling and Prediction (SBP 2012)
- C.4 Effects of Aging and Individual Differences on Credibility Judgments of Online Health Information
Q. Vera Liao, Wai-Tat Fu
Annual Conference of the Cognitive Science Society (CogSci 2011)
- C.3 Medtable™ An EMR-Based Tool to Support Collaborative Planning for Medication Use
Vera Liao, Chieh-Li Chin, Stacey McKeever, Daniel Morrow, Katherine Davis, Elizabeth Wilson, Darren Kaiser, Michael Wolf, Thembu Conner-Garcia, James Graumlich
Human Factors and Ergonomics Society Annual Meeting 2011 (HFES 2011)
- C.2 Crowdsourcing Quality Control of Online Information: a Quality-based Cascade Model
Wai-Tat Fu, **Q. Vera Liao**
International Conference on Social Computing, Behavioral-Cultural Modeling and Prediction (SBP 2011)
- C.1 Requirements of Transport Information Service and Route Guidance Service for Older Adults
Jia Zhou, Pei-Luen Patrick Rau, Qin Gao, **Qingzi Liao**
World Congress on Ergonomics (IEA 2009)

Book Chapters

- B.4 Interactive Skills and Dual Learning Processes
Wai-Tat Fu, Jessie Chin, Wei Dong, **Q. Vera Liao**
In Seel, N. M. (2012). Encyclopedia of the Sciences of Learning
- B.2 Emerging Media to Promote Physical Activity: Understanding Exposure, Attention and Behavior Change from Psychological and Computational Perspectives
Dolores Albarracin, **Vera Liao**, Jessica Yi, Chengxiang Zhai
In Zhu, W. (2016) Sedentary Behavior and Health: Concepts, Assessment and Intervention
- B.1 The Central Role of Cognitive Computations in Human-Information Interaction
Wai-Tat Fu, Jessie Chin, **Q. Vera Liao**
In Oulasvirta A. et al. (2012). Computational Interaction

Workshop Paper

- W.4 Lessons from Designing and Studying a Conversational Agent for Group Facilitation
Q. Vera Liao, Ameneh Shamekhi, Dakuo Wang
 CHI 2018 Workshop on Voice-based Conversational UX Studies and Design
- W.3 Tailoring Conversational UX through the Lens of Dialogue Complexity
Q. Vera Liao, Biplav Srivastava, Pavan Kapanipathi
 CHI 2017 Workshop on Conversational UX Design
- W.2 Human-Agent Collaborations in Meetings
 Dakuo Wang, **Q. Vera Liao**, Rachel K.E. Bellamy, Thomas D. Erickson, Jason B. Ellis, Yunfeng Zhang, Bin Xu, Michael Muller
 CSCW 2017 Workshop on Robots in Groups and Teams
- W.1 Effects of Cognitive Aging on Consumption of Online Health Information
Q. Vera Liao, Jessie Chin, Wai-Tat Fu
 CHI 2010 Workshop on Senior-friendly Technologies: Interaction Design for the Elderly

Conference Posters and Non-Peer Reviewed Papers

- P.4 Seeking Information like Mr. Spock: Applying Persuasion Theories to the Design of Information Systems
Q. Vera Liao
 Human-Computer Interaction Consortium (HCIC 2015)
- P.3 The Impact of User Reviews on Older and Younger Adults' Attitudes towards Online Medical Information
Q. Vera Liao, Wai-Tat Fu
33rd Annual Conference of the Cognitive Science Society (CogSci 2011)
- P.2 How User Reviews influence Younger and Older Adults Credibility Judgments of Online Health Information
Q. Vera Liao, Wai-Tat Fu
Extended Abstract of 29th ACM Conference on Human Factors in Computing Systems (CHI EA 2011)
*** Student Research Competition 3rd Place**
- P.1 Effects of Cognitive Aging on Credibility Assessment of Online Health Information
Q. Vera Liao, Wai-Tat Fu
Extended Abstract of 28th ACM Conference on Human Factors in Computing Systems (CHI EA 2010)

- [Invited Talks]** **Understanding and Designing for Information Behavior Nudging** 2016
 School of Informatics and Computing, Indiana University Bloomington
 School of Library and Information Science, University of North Carolina at Chapel Hill
 Department of Computer Science & Engineering, Washington University in St. Louis
 School of Computing, Clemson University
 IBM T.J. Watson Research Center
- Breaking Out the Echo Chambers: Designing for Cross-Ideology Discussions Online** 2013
 Computational Social Science Seminar, GESIS- Leibniz Institute for the Social Science (Cologne)
- Bursting the Filter Bubbles: Understanding and Designing for Seeking Diverse Opinion** 2013
 TIMAN (text information management and analysis) Research Forum, UIUC
- Age Differences in Credibility Judgment of Online Health Information** 2013
 CSTL (cognitive science of teaching and learning) Seminar, UIUC
- [Teaching]** **CS 465: User Interface Design, Teaching Assistant** 2013, 2014, 2015
 Instructed and led students to work on design projects. Gave guest lectures. Participated in the design of and graded homework. Instructor: Wai-Tat Fu.

Psych 358: Human Factors, Lab Instructor 2011
Instructed design labs for students to gain hands-on experience with usability methods. Instructor:
Scarlett Miller

[Mentoring]	IUI 2018 Student Consortium	2018
	Ameneh Shamekhi (PhD student at Northeastern, internship, PhD dissertation)	2017
	Tingting Gao (UIUC undergraduate)	2015
	Shreya Rao (UIUC undergraduate)	2015
	Jing Huang (UIUC undergraduate)	2015
	Oskar Zhang (UIUC undergraduate)	2015
	Sri Shilpa Mamidi (UIUC undergraduate, now at GE)	2014
	Mingzhu Nie (UIUC undergraduate)	2013
	Neil Nijhawan (UIUC undergraduate)	

[Services]

Organizing Committee

- IEEE International Conference on Healthcare Informatics 2016 (ICHI 2016)
- ICHI 2015 Workshop on Health Information Quality (HealthIQ 2015)

Program Committee

- ACM Conference on Human Factors in Computing Systems – Associate Chair (CHI 2018)
- ACM Conference on Computer Supported Cooperative Work and Social Computing – Associate Chair (CSCW 2018)
- ACM Transactions on Interactive Intelligent Systems (TiS) (Distinguished Reviewer)
- AAAI Conference on Artificial Intelligence (AAAI 2018)
- ACM Conference on Intelligent User Interface (IUI 2016, IUI 2017, IUI2018)
- International Joint Conference on Artificial Intelligence (IJCAI 2017, IJCAI 2018)
- ACM Conference on Human Factors in Computing Systems – Associate Chair for Late-Breaking Work category (CHI 2016)
- International Conference on Social Informatics (SocInfo 2016, SocInfo 2017)
- IEEE Human Computing and Social Computing Symposium (HCSC 2016, 2017)
- IEEE International Conference on Healthcare Informatics 2015 (ICHI 2015)
- ACM Conference on Hypertext and Social Media (Hypertext 2015)
- ACM WebSci 2014 Workshop on Computational Approach to Social Modeling

Review

- IEEE Transactions on Human-Machine Systems
- Journal of Biomedical Informatics
- International Journal of Human-Computer Studies
- PLOS ONE
- ACM Conference on Human Factors in Computing Systems (CHI 2012, 2013, 2014, 2015, 2016, 2017)
- ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW 2014, 2015, 2016, 2017, 2018)
- ACM Conference on Intelligent User Interfaces (IUI 2016, 2017)
- International World Wide Web Conference (WWW 2015)

Conference Student Volunteer

- CHI 2010, 2012, 2013

Coordinator

- HCI Seminar at University of Illinois at Urbana-Champaign