JESSIE CHIN

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EDUCATION

Ph. D. in Educational Psychology (Division: Cognitive Science of Teaching and Learning)

2016

University of Illinois at Urbana Champaign

Dissertation: Age Differences in Search During Self-Regulated Learning

Committee: Elizabeth Stine-Morrow, Daniel Morrow, Wai-Tat Fu, Stephen Payne, Rui Mata

Master of Science in Human Factors

2009

University of Illinois at Urbana Champaign

Bachelor of Science in Psychology (with Dean's Award of College of Science)

National Taiwan University

2006

RESEARCH EXPERIENCE

Research Assistant Professor

Aug 2017 - Present

Department of Biomedical and Health Information Sciences, College of Applied Health Sciences, University of Illinois at Chicago, Chicago, IL, USA

Postdoctoral Research Fellow and Lab Manager

Jan 2016-Jul 2017

Department of Systems Design Engineering, University of Waterloo, Waterloo, ON, Canada *Advanced Interface Design Lab* (*Prof. Catherine Burns*)

- Model the use of Electronic Medical Records (EMR) for healthcare professionals using mixed methods (surveys, field studies and cognitive work analysis) to promote collaboration in different healthcare settings.
- Communicate the scientific results effectively to the industrial partner (TELUS Health) for scoping next-generation health information systems in Canada.
- Assist writing of the grant proposals for the Canadian Institutes of Health Research (CIHR) and the Natural Sciences and Engineering Research Council of Canada (NSERC).

Doctoral Researcher and Graduate Fellow

Aug 2007- Dec 2015

Beckman Institute for Advanced Science and Technology, University of Illinois at Urbana Champaign, Urbana, IL, USA

Cognitive Computations and Social Dynamics Lab (Prof. Wai-Tat Fu, Computer Science)

2007-2015

- Analyzed online information search behavior of younger and older users using lab studies and advanced statistical modeling resulting in multiple high-impact ACM SIGCHI papers.
- Implemented adaptive web interfaces and dynamic scenarios to investigate various aspects of information search behavior with solid quantitative methods leading to collaboration with international institutions.

Human Factors Lab (Prof. Daniel Morrow, Educational Psychology)

2007-2015

- Investigated how patients with different levels of health literacy process health information using lab studies, on-site experiments and surveys, and developed a multi-faceted systematic approach to redesign online health information resulting in improvement of comprehension among elderly patients.
- Collaborated with on-site healthcare professionals (physicians and nurses) and researchers from pharmacy and medical science in other institutions successfully leading to a long-term close partnership.
- Presented and published research findings regularly in the interactional conferences and journals.

The Adult Learning Lab (Prof. Elizabeth Stine-Morrow, Educational Psychology)

2012-2015

- Modeled macro and micro information foraging behavior of adults across the lifespan using multilevel nonlinear models and growth models resulting in journal publications.
- Built novel experimental paradigms and analytical approaches to investigate search for learning.
- Conducted interdisciplinary research connecting theories in metacognition and animal foraging to extend theories in learning science winning multiple awards in cognitive science and human-computer interaction.

TEACHING EXPERIENCE

Mentoring and Guest Lectures, University of Waterloo, Canada

2016-Present

- Mentor graduate and undergraduate students in health-related human computer interaction projects.
- Give lectures on crowdsourcing research to undergraduate students in Systems Design Engineering.

Teaching Assistant and Guest Lectures, University of Illinois at Urbana Champaign, USA 2013 Fall

PSY 456 Human Performance and Engineering Psychology, University of Illinois at Urbana Champaign

- Designed and gave lectures to the students using mixed teaching methods.
- Evaluated and monitored students' learning performance through quizzes, exams and individual meetings.

FELLOWSHIPS

Chateaubriand Fellowship In Humanities And Social Science 2013 French Embassy (Host University: University of Toulouse) **Beckman Institute Graduate Fellowship** 2011-2012 University of Illinois at Urbana Champaign

National Science Council Undergraduate Student Fellowship National Science Council, Taiwan	2005-2006
AWARDS	
Arnold Small Best Student Paper Award	2015
59th Annual Meetings of the Human Factors & Ergonomics Society, Aging Technical Group	
Thomas and Margaret Huang Award for Graduate Research	2015
Beckman Institute, University of Illinois at Urbana Champaign	
Raymond W. Kulhavy Memorial Scholarship Award	2014
College of Education, University of Illinois at Urbana Champaign	
Barak Rosenshine Award	2014
College of Education, University of Illinois at Urbana Champaign	
University Fellowship	2014
Graduate College, University of Illinois at Urbana Champaign	
Cognitive Science /Artificial Intelligence Award	2012
Beckman Institute for Advanced Science and Technology, University of Illinois at Urbana Cha	ampaign
Hardie Conference Travel Award 2009,	2011, 2014
University of Illinois at Urbana Champaign	
Arnold Small Best Student Paper Award	2009

53rd Annual Meetings of the Human Factors & Ergonomics Society, Aging Technical Group

ACTIVITIES AND LEADERSHIP

2009-Present Ad Hoc Reviewer

Journals:

- Journal of Experimental Psychology: Applied
- Journal of Health Communication
- International Journal of Human-Computer Studies
- HLRP: Health Literacy Research and Practice
- Interacting with Computers

Conferences:

- Annual Conference of the Cognitive Science Society
- ACM Conference on Human Factors in Computing Systems CHI
- IEEE International Conference on Healthcare Informatics
- **ACM** Hypertext Conference

ACTIVITIES AND LEADERSHIP (continued)

Program Committee Member IEEE International Conference on Healthcare Informatics 2017 (Human Factors Track) Program Committee Member ACM Hypertext 2016 conference and the IndiDiff2016 workshop (Workshop on Web Search and Individual Differences) Program Committee Member IEEE International Conference on Healthcare Informatics 2016 (Human Factors Track)

Note Taker and Facilitator 2016

First University of Waterloo - Sorbonne Universités Seminar "Crystalizing Transdisciplinary Innovation in Health Engineering"

Program Committee Member

IEEE International Conference on Healthcare Informatics 2015
For both Human Factors track and HealthIQ Workshop (Health Information Quality)

Vice President

2015
2016

Human Factors & Ergonomics Society Student Chapter at the University of Illinois at Urbana Champaign

PEER-REVIEWED PUBLICATIONS

- **Chin, J.**, Moller, D. D., Johnson, J., Duwe, E., Graumlich, J. F., Murray, M. D. & Morrow, D. G. (2017). A multi-faceted approach to promote comprehension of online health information among older adults. *The Gerontologist*. DOI: 10.1093/geront/gnw254
- Rezai, L. S., Chin, J., Bassett-Gunter, R., Burns, C. (2017). Developing persuasive health messages for a behavior-change-support-system that promotes physical activity. Proceedings of the International Symposium on Human Factors and Ergnomics in Health Care, 6(1) 89-95. Doi: 10.1177/2327857917061020
- Sanchiz, M., Chin, J., Chevalier, A., Fu, W-T., Amadieu, F. & He, J. (2017). Searching for information on the web: Impact of cognitive aging, prior domain knowledge and complexity of the search problems. Information Processing & Management, 53(1), 281-294. DOI: 10.1016/j.ipm.2016.09.003
- Karanam, S., van Oostendrop, H., Sanchiz, M., Chevalier, A., Chin, J., Fu, W-T. (2017). Cognitive modeling of age-related differences in information search behavior. Journal of the Association for Information Science and Technology. DOI: 10.1002/asi.23893
- Chin, J. & Stine-Morrow, E. A. L. (2016). What makes you feel you are learning: Cues to self-regulated learning. In A. Papafragou, D. Grodner, D. Mirman, J. C. Trueswell (Eds.), *Proceedings of the 38th Annual Conference of the Cognitive Science Society* (pp. 538-543). Austin, TX: Cognitive Science Society.
- Liu, X., Chin, J., Payne, B. R., Fu, W-T., Morrow, D. G., Stine-Morrow, E. A. L. (2016). Adult age differences in information foraging in an interactive reading environment. *Psychology and Aging*. DOI: 10.1037/pag0000079
- Chin, J., Madison, A., Gao, X., Graumlich, J. F., Conner-Garcia, T., Murray, M. D., Stine-Morrow, E. A. L. & Morrow, D. G. (2015). Cognition and health literacy in older adults' recall of self-care information. *The Gerontologist*. DOI:10.1093/geront/gnv091
- **Chin, J.**, Payne, B., Fu, W-T., Morrow, D. G. & Stine-Morrow, E. A. L. (2015). Information foraging across the life span: Search and switch in unknown patches. *Topics in Cognitive Science*, 7(3), 428-450. DOI:10.1111/tops.12147

PEER-REVIEWED PUBLICATIONS (continued)

Chin, J., Payne, B., Gao, X., Conner-Garcia, T., Graumlich, J., Murray, M. D., Morrow, D. G. & Stine-Morrow, E. A. L. (2015). Memory and comprehension for health information among older adults: Distinguishing the effects of domain-general and domain-specific knowledge, *Memory*, 23, 577-589. DOI: 10.1080/09658211.2014.912331

- **Chin, J.**, Anderson, E., Chin, C-L. & Fu, W-T. (2015). Age differences in information search: An exploration-exploitation tradeoff model. *Proceedings of the 59th Annual Meeting of the Human Factors and Ergonomics Society 2015*. Los Angeles, CA: Human Factors and Ergonomics Society.
- Chin, J., Johnson, J., Moeller, D., Duwe, E., Graumlich, J. F., Murray, M. D., Stine-Morrow, E. A. L. & Morrow, D. G. (2015). Promoting comprehension of health information among older adults. In D. C. Noelle, R. Dale, A. S. Warlaumont, J. Yoshimi, T. Matlock, C. D. Jennings, & P. P. Maglio (Eds.), *Proceedings of the 37th Annual Conference of the Cognitive Science Society* (pp. 375-380). Austin, TX: Cognitive Science Society.
- Morrow, D. & Chin, J. (2015). Decision making and health literacy among older adults. In T. Hess, J. Strough, & C. Löckenhoff (Eds.), *Aging and Decision Making: Empirical and Applied Perspectives* (pp.261-282). New York, NY: Elsevier Academic Press. DOI: 10.1016/b978-0-12-417148-0.00013-3
- Chin, J., Payne, B., Fu, W-T., Morrow, D. G. & Stine-Morrow, E. A. L. (2012). Information foraging in the unknown patches across the life span. In N. Miyake, D. Peebles, & R. P. Cooper (Eds.), *Proceedings of the 34th Annual Conference of the Cognitive Science Society* (pp. 1404-1409). Austin, TX: Cognitive Science Society.
- Chin, J. & Fu, W-T. (2012). Age differences in exploratory learning from a health information website. *Proceedings of the 30th ACM Conference on Human Factors in Computing Systems CHI'12* (pp. 3031-3040). Austin, TX: ACM Press. DOI:10.1145/2207676.2208715
- Morrow, D. G. & Chin, J. (2012). Technology as a bridge between health care systems and older adults. In R. Z. Zheng, R. Hills & M. Gardner (Eds.), *Engaging Older Adults with Modern Technology: Internet Use and Information Access Needs* (pp.59-79). Hershey, PA: IGI Global. DOI: 10.4018/978-1-4666-1966-1.ch004
- Morrow, D., D'andrea, L., Stine-Morrow, E.A.L., Shake, M. Bertel, S., Chin, J., Kopren, K., Gao, X., Conner-Garcia, T., Graumlich, J. & Murray, M. (2012). Comprehension of multimedia health information among older adults with chronic illness. *Visual Communication*, 11(3), 347-362.
- Fu, W-T., **Chin, J.**, Dong, W. & Liao, Q. V. (2012). Interactive skills and dual learning processes. In N. M. Seel (Ed.), *Encyclopedia of the Sciences of Learning* (pp.1612-1615). New York, NY: Springer Press.
- Yamani, Y., Chin, J., Meyers, E. A. G., Gao, X., Morrow, D. G., Stine-Morrow, E. A. L., Conner-Garcia, T., Graumlich, J. F. & Murray, M. D. (2012). Reading engagement offsets declines in processing capacity for health literacy. *Proceedings of the 56th Annual Meeting of the Human Factors and Ergonomics Society 2012* (pp.916-920). Boston, MA: Human Factors and Ergonomics Society. DOI: 10.1177/1071181312561191
- **Chin, J.**, Morrow, D. G., Stine-Morrow, E. A. L., Conner-Garcia, T., Graumlich, J. F. & Murray, M. D. (2011). The process-knowledge model of health literacy: Evidence from a componential analysis of two commonly used measures. *Journal of Health Communication*, *16* (*Suppl3*), 222-241. DOI:10.1080/10810730.2011.604702
- Chin, J., Stine-Morrow, E. A. L., Morrow, D. G., Gao, X., Conner-Garcia, T., Graumlich, J. F. & Murray, M. D. (2011). The effects of domain general and health knowledge in processing general and health texts among older adults with hypertension. *Proceedings of the 55th Annual Meeting of the Human Factors*

and Ergonomics Society 2011 (pp.147-151). Las Vegas, NV: Human Factors and Ergonomics Society. DOI: 10.1177/1071181311551031

PEER-REVIEWED PUBLICATIONS (continued)

- Chin, J. & Fu, W-T. (2010). Interactive effects of age and interface differences on search strategies and performance. *Proceedings of the 28th ACM Conference on Human Factors in Computing Systems CHI'10* (pp.403-412). Atlanta, GA: ACM Press. DOI: 10.1145/1753326.1753387
- Liao, Q., Chin, J. & Fu, W-T. (2010). Effects of cognitive aging on consumption of online health information. In Proceedings of the 28th ACM Conference on Human Factors in Computing Systems CHI'10. Atlanta, GA: ACM Press.
- Chin, J., D'Andrea, L., Morrow, D. G., Stine-Morrow, E. A. L., Conner-Garcia, T., Graumlich, J. F. & Murray, M. D. (2009). Cognition and illness experience are associated with illness knowledge among older adults with hypertension. *Proceedings of the 53rd Annual Meeting of the Human Factors and Ergonomics Society 2009* (pp. 116-120). San Antonio, TX: Human Factors and Ergonomics Society. DOI: 10.1518/107118109X12524441079265
- **Chin, J.**, Fu, W-T. & Kannampallil, T. (2009). Adaptive information search: Age-dependent interactions between cognitive profiles and strategies. *Proceedings of the 27th ACM Conference on Human Factors in Computing Systems CHI'09* (pp.1683-1692). Boston, MA: ACM Press. DOI: 10.1145/1518701.1518961

CONFERENCE PRESENTATIONS

- Rezai., L. S., **Chin, J.**, Bassett-Gunter, R. & Burns, C. (2017). Investigating efficacy of regulatory fit theory in design of persuasive systems that promote physical activity. *Poster presented at the Second International Workshop on Personalized Persuasive Technologies*.
- Rezai., L. S., Chin, J., Bassett-Gunter, R. & Burns, C. (2017). Effects of message tailoring on persuasiveness of systems that promote physical activity. *Poster presented at the Persuasive Technology XII 2017*, Amsterdam, Netherlands.
- Chin, J. & Stine-Morrow, E. A. L. (2016). When to stop learning: Search and satisficing during self-regulated learning across the lifespan. *Poster presented at the 28th Association for Psychological Science Annual Convention*, Chicago, IL.
- **Chin, J.** & Stine-Morrow, E. A. L. (2016). Age differences in search and satisficing during self-regulated learning. *Poster presented at the Cognitive Aging Conference 2016*, Atlanta, GA.
- Chin, J., Anderson, E., Chin, C-L. & Fu, W-T. (2015). Age differences in information search: An exploration-exploitation tradeoff model. [Abstract]. In D. C. Noelle, R. Dale, A. S. Warlaumont, J. Yoshimi, T. Matlock, C. D. Jennings, & P. P. Maglio (Eds.), *Proceedings of the 37th Annual Conference of the Cognitive Science Society* (p. 2870). Austin TX: Cognitive Science Society.
- **Chin, J.**, Chevalier, A., He, J. & Fu, W-T. (2014). Linking knowledge in the head to knowledge in the world: Age differences in web exploration with the search engine. *Poster presented at the Cognitive Aging Conference 2014*, Atlanta, GA.
- Chin, J., Payne, B. R., Fu, W-T., Morrow, D. G. & Stine-Morrow, E. A. L. (2014). Information foraging across the life span: Search and switch in unknown patches. *Poster presented at the Cognitive Aging Conference 2014*, Atlanta, GA.
- Chin, J., Madison, A., Conner-Garcia, T., Graumlich, J. F., Murray, M. D., Stine-Morrow, E. A. L. & Morrow, D. G. (2013). Cognition and older adults' recall of self-care information: The importance of knowledge. *Poster presented at the 5tht Health Literacy Annual Research Conference*, Washington, DC.

CONFERENCE PRESENTATIONS (continued)

Chin, J., Morrow, D. G., Stine-Morrow, E. A. L., Gao, X., Conner-Garcia, T., Graumlich, J. F. & Murray, M. D. (2012). Effects of domain: General and health knowledge on sentence-processing and recall among older adults. *Poster presented at the Cognitive Aging Conference 2012*, Atlanta, GA.

- Chin, J., Payne, B. R., Battles, A., Fu, W-T., Morrow, D. G., Stine-Morrow, E. A. L. (2012). Age differences in information foraging: search and switch in word search puzzles. *Poster presented at the Cognitive Aging Conference 2012*, Atlanta, GA.
- Chin, J., Fu, W-T. & Stine-Morrow, E. A. L. (2011). To Go or to Stay: The foraging behavior in two interleaving puzzles of younger and older information seekers. *Poster presented at the 52th Annual Meeting of the Psychonomic Society*, Seattle, WA.
- Chin, J., Morrow, D. G., Stine-Morrow, E. A. L., Gao, X., Conner-Garcia, T., Graumlich, J. F. & Murray, M. D. (2011). The effects of domain general and health Knowledge on reading general and health texts among older adults with hypertension. *Poster presented at the 52th Annual Meeting of the Psychonomic Society*, Seattle, WA.
- Chin, J., Fu, W-T. & Stine-Morrow, E. A. L. (2011). To go or to stay: Age difference in cognitive foraging [Abstract]. In L. Carlson, C. Hölscher, & T. Shipley (Eds.), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society* (p. 3076). Austin, TX: Cognitive Science Society.
- Chin, J., Fu, W-T. & Stine-Morrow, E. A. L. (2011). To go or to stay: Age difference in cognitive foraging. Poster presented at the "Educational Neuroscience: Minds, Brains, and New Literacy" Workshop, Urbana, IL.
- Chin, J., Morrow, D. G., Stine-Morrow, E. A. L., Gao, X., Conner-Garcia, T., Graumlich, J. F. & Murray, M. D. (2011). The dissociation of effects of domain knowledge in processing general and health texts among older adults with hypertension. *Poster presented at the 119th American Psychology Association Convention*, Washington, DC.
- Chin, J. & Fu, W-T. (2010). Effects of age differences, cognitive abilities, task demands, and interfaces on the selection of information foraging strategies. *Poster presented at the Cognitive Aging Conference* 2010, Atlanta, GA.
- Chin, J., Morrow, D. G., D'Andrea, L., Stine-Morrow, E. A. L., Conner-Garcia, T., Graumlich, J. & Murray, M. (2010). The association between health-related problem solving and health literacy among older adults with hypertension. *Poster presented at the Cognitive Aging Conference 2010*, Atlanta, GA.
- **Chin, J.** & Fu, W-T. (2009). Age-dependent interactions between cognitive profiles and information search strategies. *Poster presented at the 50th Annual Meeting of the Psychonomic Society*, Boston, MA.

PROFESSIONAL DEVELOPMENT

2017 Data on the Mind Workshop, University of California Berkeley	2017
Nengo Summer School on Large-Scale Brain Modeling, The Centre for Theoretical Neuroscience, University of Waterloo, Canada	2017
Mitacs Step Workshop (Career Professionalism), Mitacs and University of Waterloo, Canada	2017
Mitacs Step Workshop (Project Management), Mitacs and University of Waterloo, Canada	2017
Certificate of Teaching Development Seminar Series, University of Waterloo, Canada	2016
CTE 196 Teaching Philosophy Statements; CTE 501 How Students Learn;	
CTE 502 Motivating Students; CTE 503 Assessing Learning; CTE 504 Interactive Learning	

CTE 505 Introduction to Course Design

PROFESSIONAL DEVELOPMENT (continued)	2016
CTE 771 Strategies for Large Classes, University of Waterloo, Canada	
CTE 217 Teaching Methods, University of Waterloo, Canada	2016
Mitacs Step Workshop (Presentation Skills), Mitacs and University of Waterloo, Canada	2016
ACT-R Summer Institute, Department of Psychology, Carnegie Mellon University	2015
Summer Institute for Bounded Rationality, Max Planck Institute in Berlin, Germany	2015

INVITED TALKS

• University of Waterloo - Sorbonne Universités Seminar "Crystalizing Transdisciplinary Innovation in Health Engineering", Waterloo, Canada, 2016.

Topic: Varying health information exchange patterns in the physician-pharmacist collaborative medication therapy management.

• Department of Systems Design Engineering, University of Waterloo, Canada, 2015.

Topic: To go or to stay: Information foraging across the life span.

Department of Psychology, University of Toulouse and University of Albi, France, 2013.

Topic: Cognitive search: From foraging to web search across the life span.

• Beckman Institute Graduate Student Seminar, University of Illinois at Urbana Champaign, 2012.

Topic: Information foraging across the life span: Search and switch in unknown patches.

• Symposium Initiative on Aging and Communication Research (I-CARE), University of Illinois at Urbana Champaign, 2012.

Topic: The effects of domain general and health knowledge in processing general and health texts among older adults with hypertension.

SKILLS

- Proficiency in statistical analysis (multivariate analysis, longitudinal data analysis, multilevel linear and non-linear modeling, growth models, mediation and moderation analysis, model competition, predictive modeling, etc.) with SAS, R and SPSS.
- Programming using PHP, Perl, MySQL and ePrime.
- Experience in both quantitative research methods (lab experiments, crowdsourcing research, surveys, modeling) and qualitative research methods (field studies, observations, interviews, user research).
- Multidisciplinary research backgrounds (psychology, computer science, information science, medicine, pharmacy and engineering).
- Experience in Cognitive Work Analysis and Ecological Interface Design.
- Knowledge in ACT-R computational modeling.