YANG XU

Curriculum Vitae

Dec 2018

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Department of Computer Science
College of Science
San Diego State University

RESEARCH INTERESTS

My research interests span across cognitive science, computer science, linguistics and psychology. I use computational methods (natural language processing, machine learning etc.) to study the subtlety of language use in dialogue and the long term language evolution in history. The questions that interest me include (not limited to): how people adjust their language to reach better coordination in dialogue and to maintain efficient communication, how do certain linguistic constructions correspond to the cognitive constraints of human mind, how the semantic space representation of words evolve historically etc.

EMPLOYMENT

Assistant Professor of Computer Science — Aug 2018 –
Department of Computer Science, San Diego State University

EDUCATION

Ph.D in Information Sciences and Technology — Aug 2013 – June 2018
The Pennsylvania State University, USA

Master of Science — Sep 2010 – Jul 2013
Department of Psychology, Tsinghua University, China

Bachelor of Science — Sep 2006 – Jul 2010
Department of Electronic Engineering, Tsinghua University, China

PUBLICATIONS

In preparation

Yang Xu, Jiasheng Zhang, and David Reitter. Dynamically weighted character-enhanced word embedding reveals language evolution. 2019. (In preparation)

Under review

Yang Xu, Jeremy Cole, and David Reitter. Linguistic alignment affected more by low-level linguistic features rather than social power. 2018. (In submission to journal)

Published

Yang Xu, Jeremy Cole, and David Reitter. Linguistic alignment is affected more by lexical surprisal rather than social power. *Proceedings of the Society for Computation in Linguistics*, 2(1):349–352, 2019

Yang Xu, Jeremy Cole, and David Reitter. Not that much power: Linguistic alignment is influenced more by low-level linguistic features rather than social power. In *Proceedings of the 56th Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*, volume 1, pages 601–610, 2018

Yang Xu and David Reitter. Information density converges in dialogue: Towards an information-theoretic model. *Cognition*, 170:147–163, 2018

Yang Xu and David Reitter. Spectral analysis of information density in dialogue predicts collaborative task performance. In *Proceedings of the 55th Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*, pages 623–633, Vancouver, Canada, 2017

Yang Xu and David Reitter. Entropy converges between dialogue participants: Explanations from an information-theoretic perspective. In *Proceedings of the 54th Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*, pages 537–546, Berlin, Germany, August 2016. Association for Computational Linguistics

Yang Xu and David Reitter. Convergence of syntactic complexity in conversation. In *Proceedings of the 54th Annual Meeting of the Association for Computational Linguistics (Volume 2: Short Papers)*, pages 443–448, Berlin, Germany, August 2016. Association for Computational Linguistics

Yang Xu and David Reitter. An evaluation and comparison of linguistic alignment measures. In *Proceedings of Cognitive Modeling and Computational Linguistics (CMCL)*, pages 58–67, Denver, CO, 2015. Association for Computational Linguistics

Alexander G. Ororbia II, **Yang Xu**, Vito D'Orazio, and David Reitter. Error-correction and aggregation in crowd-sourcing of geopolitical incident information. In N. Agarwal et al., editor, *Social Computing, Behavioral Modeling and Prediction*, volume 9021 of *Lecture Notes in Computer Science*, pages 381–387. Springer, 2015

David Reitter, **Yang Xu**, Patrick Craven, Anik Sndor, R. Chris Garrett, E. Vince Cross, and Jerry L. Franke. Cognitive models predicting surprise in robot operators. In *Proc. International Conference on Cognitive Modeling*, pages 190–191, Groningen, Netherlands, 2015

Yang Xu and Hong Li. The influence of visibility range and degree of urgency on the efficiency of evacuation: the mediating effect of herding behavior. *Studies of Psychology and Behavior*, 13(3):311–319, 2015. (Published in Chinese)

Hong Li, **Yang Xu**, Shi Chen, and Anqi Gao. The preference for the sources of information in simulated emergency escape judgment and decision-making. *Studies of Psychology and Behavior*, 10(6):452–458, 2012. (Published in Chinese)

INVITED TALKS

Computational Understanding of Dialogue and Language — San Diego State University, Feb 2018

HONOR AND AWARDS

Award for Research Excellence — Penn State, College of Information Sciences and Technology, 2018
Outstanding Graduates Award — Tsinghua University, 2013
Distinguished Master Thesis Award — Tsinghua University, 2013
Fellowship of Excellence in College Entrance Exam — Changxing, Zhejiang, 2006

PROFESSIONAL SERVICES

Reviewer of CogSci 2018 — 2018

TEACHING EXPERIENCES

Instructor — Fall 2018
CS596 (Machine Learning)

Teaching Assistance — Fall 2017
DS200 (Introduction to Data Sciences) & DS220 (Data Management and Data Sciences)

Teaching Assistance — Spring 2015
IST816 (Web Informatics)