

The University at Buffalo
Department of Computer Science and Engineering

presents

Deceptive Speech Across Gender and Culture

featuring

Julia Hirschberg, Columbia University

Detecting deception from different dimensions of human behavior has been a major goal of research for many years and is of considerable interest to military and law enforcement agencies, corporate security and social services and mental health workers. However, little work has been done to develop automatic methods to detect deception from spoken language or to compare deception detection and production between different cultures. We present results of experiments on a new corpus of deceptive and non-deceptive speech, collected from native speakers of Standard American English and Mandarin Chinese (all speaking English) to identify acoustic, prosodic, and lexical cues to deception. We examine the role of gender, cultural background, and personality factors derived from the NEO-FFI (Neuroticism-Extraversion-Openness Five Factor Inventory) on subjects' ability to deceive and to detect deception. We also present classification results discriminating deceptive from non-deceptive speech, using these features as well as acoustic and prosodic cues.

Julia Hirschberg is Percy K. and Vida L. W. Hudson Professor of Computer Science and Chair of the Computer Science Department at Columbia University. She worked at Bell Laboratories and AT&T Laboratories -- Research from 1985-2003 as a Member of Technical Staff and a Department Head, creating the Human-Computer Interface Research Department in 1994. She served as editor-in-chief of *Computational Linguistics* from 1993-2003 and co-editor-in-chief of *Speech Communication* from 2003-2006. She served on the Executive Board of the Association for Computational Linguistics (ACL) from 1993-2003, on the Permanent Council of International Conference on Spoken Language Processing (ICSLP) since 1996, and on the board of the International Speech Communication Association (ISCA) from 1999-2007 (as President 2005-2007); she has served on the CRA Executive Board (2013-14), the Association for the Advancement of Artificial Intelligence (AAAI) Council (2012-15), the Executive Board of the North American ACL (2012-15), the IEEE Speech and Language Processing Technical Committee (2011--), and the board of the CRA-W (2009--). She has been an AAAI fellow since 1994, an ISCA Fellow since 2008, and a (founding) ACL Fellow since 2011, was elected to the American Philosophical Society in 2014, and was selected ACM Fellow in 2016. She is a winner of the IEEE James L. Flanagan Speech and Audio Processing Award (2011) and the ISCA Medal for Scientific Achievement (2011).

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Thursday, March 31

3:30 PM - Student Union 330