

THIRD-GENERATION CONVERSATIONAL INTERFACES

Giuseppe Riccardi

University of Trento, Italy

RESUMEN

Communicating with machines is becoming pervasive to the point we rely entirely on them to find (vital) information over the web, perform on-line (trans)actions and communicate with people speaking different languages. In the last decade we have seen tremendous research and technology advancement in the speech and text based interfaces. We are now faced with the problem of overcoming their limitations and investigate multimodal input, adaptive interfaces, communicative paradigms and tame task complexity. In this talk we discuss research towards third-generation conversational interfaces.

Prof. Riccardi received his Laurea degree in Electrical Engineering and Master in Information Technology, in 1991, from the University of Padua and CEFRIEL Research Center, respectively. From 1990-1993 he collaborated with Alcatel-Telettra Research Laboratories (Milan, Italy). In 1995 he received his Phd in Electrical Engineering from the Department of Electrical Engineering at the University of Padua, Italy. From 1993-2005, he worked first at AT&T Bell Laboratories and then AT&T Labs-Research where he worked in the Speech and Language Processing Lab. In 2005 joined the faculty of Engineering at University of Trento (Italy) and is affiliated with the interdisciplinary Department of Information and Communication Technology and Center for Mind/Brain Sciences. He is the founder and director of the Adaptive Multimodal Information and Interfaces (AMI2) Lab.

Prof. Riccardi's research on stochastic finite state machines for speech and language processing has been applied to a wide range of domains for task automation. He and his colleagues designed the state-of-the-art AT&T spoken language system ranked first in the 1994 DARPA ATIS evaluation. He pioneered the speech and language research in spontaneous speech for the well-known "How May I Help You?" research program which led to breakthrough speech services. His research on learning finite state automata and transducers has lead to the creation of the first large scale finite state chain decoding for machine translation (Anuvaad).

Prof. Riccardi has co-authored more than 80 papers and 25 patents in the field of speech processing, speech recognition, understanding and machine translation. His current research interests are language modelling and acquisition, language understanding, spoken/multimodal dialog, affective interfaces, machine learning and machine translation.

Prof. Riccardi has been on the scientific committee of EUROSPEECH, INTERSPEECH, ICASSP, NAACL and ACL an EACL. He has co-organized the IEEE ASRU Workshop in 1993, 1999, 2001 and General Chair in 2009. He has been the Guest Editor of the IEEE Special Issue on Speech-to-Speech Machine Translation. He has been a founder and Editorial Board member of the ACM Transactions of Speech and Language. He is elected member of the IEEE SPS Speech Technical Committee (2005-2008). Prof. Riccardi has been member of New York Academy of Science and is senior member of IEEE, ACL, ISCA.

Prof. Riccardi have received many national and international awards and more recently the Marie Curie Research Excellence grant by the European Commission.