

# CURRICULUM VITAE

## Laura Tomokiyo

Robotics Institute  
Newell-Simon Hall A423  
Carnegie Mellon University  
Pittsburgh, PA 15213  
(412) 268-8037  
laura@cs.cmu.edu

641 Hastings St.  
Pittsburgh, PA 15206  
(412) 362-3447

### EDUCATION

PhD	Language Technologies, Carnegie Mellon University	1996-2001
	Dissertation: Recognizing Non-Native Speech: Characterizing and Adapting to Non-native usage in Speech Recognition	
MS	Computational Linguistics, Carnegie Mellon University	1994-1996
SB	Computer Science and Electrical Engineering, MIT	1988-1991

### RESEARCH STATEMENT

The cognitive world of 21st-century children crosses between the physical and virtual in a way that evolution has not prepared them for. To succeed in a technological world, they need to develop application-based skills to negotiate the present and cognitive skills to easily adopt technologies that have not been invented, yet their development is very much grounded in multi-sensory experiences and play. Children in the developing world face particular challenges, as access to technology becomes synonymous with access to information and resources. My research focus has recently moved from access to specific technologies, namely spoken language processing technologies, to technology education with a global and evolutionary view. In particular: robotics education, combining physical and virtual realms; technology integration in primary school curricula; inter-cultural communication; impact of language technologies on language diversity.

### APPOINTMENTS

Project Scientist, Carnegie Mellon University	2007-Present
Director of Language Development, Cepstral LLC	2005-2006
Principal Research Scientist, Cepstral LLC	2001-2005

### SERVICE

Program Chair, Fine Outreach for Science 2008  
Technology Advisory Board, Falk Laboratory School  
Organizing Committee, Interspeech 2006  
Graduate Student Advisory Board, Carnegie Mellon University  
Student Advisory Council, Carnegie Mellon University  
Reviewer, *Speech Communication*  
Reviewer, Interspeech  
Reviewer, Association for Computational Linguistics  
Panelist, Grace Hopper Celebration for Women in Technology  
Panelist, women@scs

## SELECTED PUBLICATIONS

Laura Mayfield Tomokiyo, Kay Peterson, Alan W Black, Kevin A. Lenzo. "Intelligibility of Machine Translation Output in Speech Synthesis," *Proceedings of Interspeech*, September 2006, Pittsburgh, PA.

Silke Goronzy, Laura Mayfield Tomokiyo, Etienne Barnard, and Marelle Davel. "Challenges: Non-native Speech, Dialects, Accents, and Local Interfaces," in Tanja Schultz and Katrin Kirchhoff, eds. *Multilingual Speech Processing*, Elsevier, Academic Press, 2006.

Laura Mayfield Tomokiyo, Carol J. Sisson, Alan W Black. "Mixed-mode Multilinguality in TTS: The Case of Canadian French," *Multiling*, Stellenbosch, South Africa, 2006

Laura Mayfield Tomokiyo "Please Understand Me! Toward Modeling of Non-native Speech in Automatic Speech Recognition," Invited Talk, Acoustical Society of America, November 2004, San Diego, CA.

Laura Mayfield Tomokiyo, Alan W Black, Kevin A. Lenzo. "Arabic in my Hand: Small-footprint Synthesis of Egyptian Arabic," *Eurospeech*, Geneva, 2003.

L. Mayfield Tomokiyo. "Hypothesis-driven Accent Discrimination." *Proceedings of EUROSPEECH*, Aalborg, September, 2001.

L. Mayfield Tomokiyo and Alex Waibel. "Adaptation Methods for Non-native Speech," *Proceedings of Multilinguality in Spoken Language Processing*, Aalborg, September, 2001.

L. Mayfield Tomokiyo and R. Jones. "You're Not From 'Round Here, Are You? Naive Bayes Detection of Non-native Utterance Text," *Proceedings of NAACL*, Pittsburgh, 2001.

L. Mayfield Tomokiyo, L. Wang, M. Eskenazi. "An Empirical Study of the Effectiveness of Speech-Recognition-Based Pronunciation Tutoring," *Proceedings of ICSLP*, Beijing, October 2000.

Alex Waibel, Petra Geutner, Laura Mayfield Tomokiyo, Tanja Schultz, Monika Woszczyna. "Multilinguality in Speech and Spoken Language Systems," Invited paper, *Proceedings of the IEEE, Special Issue on Spoken Language Processing*, Vol. 88, No. 8, August 2000.

L. Mayfield Tomokiyo. "Linguistic Properties of Non-Native Speech," *Proceedings of ICASSP*, Istanbul, June 2000.

L. Mayfield Tomokiyo, S. Burger. "Eliciting Natural Speech from Non-native Users: Collecting Speech Data for LVCSR," *Proceedings of the ACL-IALL joint workshop on computer mediated language assessment and evaluation in NLP*, Maryland, June 1999.

Laura Mayfield Tomokiyo and Klaus Ries. "What's in a Word: Learning Base Units in Japanese for Speech Recognition," *proceedings of the IEEE workshop on Natural Language Learning*, July 1997, Madrid, Spain.

Laura Mayfield, Katunobu Itou, Satoru Hayamizu and Kazuyo Tanaka. "Prosodic Features in User Response to a Speech Dialogue System," in *Proceedings of the Information Processing Society of Japan*, vol. 2, pp. 367-368, October, 1993.

Laura Mayfield and Satoru Hayamizu. "Language-Specific Influences in User Presentation of Response to Speech Dialogue Systems," in *Proceedings of the ICEIE, SPREC-93-1*, July, 1993.