

Corpus Phonetics: Past, Present, and Future

Mark Liberman

Department of Linguistics
University of Pennsylvania
Philadelphia, PA, USA
myl@cis.upenn.edu

Invited Speaker

Abstract

Semi-automatic analysis of digital speech collections is transforming the science of phonetics, and offers interesting opportunities to researchers in other fields. Convenient search and analysis of large published bodies of recordings, transcripts, metadata, and annotations – as much as three or four orders of magnitude larger than a few decades ago – has created a trend towards “corpus phonetics,” whose benefits include greatly increased researcher productivity, better coverage of variation in speech patterns, and essential support for reproducibility.

The results of this work include insight into theoretical questions at all levels of linguistic analysis, as well as applications in fields as diverse as psychology, sociology, medicine, and poetics, as well as within phonetics itself. Crucially, analytic inputs include annotation or categorization of speech recordings along many dimensions, from words and phrase structures to discourse structures, speaker attitudes, speaker demographics, and speech styles. Among the many near-term opportunities in this area we can single out the possibility of improving parsing algorithms by incorporating features from speech as well as text.

Biography

Mark Liberman is the Christopher H. Browne Professor of Linguistics at the University of Pennsylvania, as well as Professor of Computer and Information Science, Faculty Director of Ware College House, and Director of the Linguistic Data Consortium. Before moving to Penn, he was member of technical staff and head of the Linguistics Research Department at AT&T Bell Laboratories from 1975 to 1990. He is a fellow of the Linguistic Society of America and the American Association for the Advancement of Science, and co-editor of the *Annual Review of Linguistics*.

He received the Antonio Zampolli Prize from the European Language Resources Association in 2010, and the IEE James L. Flanagan Speech and Audio Processing Award in 2017.

His current research focuses on features of speech, language, and communicative interaction that are associated with neuropsychological categories and with relevant dimensions of variation in the population at large.