FROM SPEECH- AND SOUND RESEARCH TO APPLICATIONS AND PRODUCTS

Peter Donhauser
Institute for Media Archaeology, Austria
peter.donhauser@inode.at

Abstract: Speech research goes back far to the 18th century (f.i. speech machines by Christian Gottlieb Kratzenstein or the publication by Wolfgang von Kempelen). Many of the research results led to commercial applications. Examples are the Phonautograph by Scott de Martinville (led to the Phonograph) or Ludimar Hermann’s research on vowels (led to filters of electronic instruments and to speech synthesizers). Research findings by Helmholtz led to sound synthesis, to the vocoder and numerous recent sound software. Even cochlea implants use the technique of band filters used in vocoders. 2007 the “Autoklavierspieler” was shown at the Vienna festival “Wien modern”, performing a speech application using a grand piano. There is a significant knowledge transfer between sound research, technology, commercial applications and art practices as well.