

VOCODERS WE HAVE LOVED, LOATHED, AND LAUGHED AT

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ABSTRACT

Attempts to make speaking machines date back to pre-history, through the mechanical age, the electrical era, the electronic era, and the digital revolution. This talk will survey many of these efforts and devices, from Dudley's Voder and Vocoders (Voice Coders) of 1930s, to the often annoying "Auto-Tune" feature used so much in pop music today. Highlights will include Wah-Wah pedals, acoustic "talk boxes" asking "Do you Feel Like I Do?" and Carlos/Bode helping the Moog to sing "Freude!" The "Bicycle Built for Two" song will make frequent appearances. Attendees will be treated to many historical sound examples, video clips, and live demonstrations.

1. BIOGRAPHY

Perry R. Cook attended the University of Missouri at Kansas City Conservatory of Music from 1973 to 1977, studying voice and electronic music. He worked as a sound engineer and designer from 1976 - 1981. He received a BA in music in 1985, and a BS in Electrical Engineering in 1986 from UMKC. He received a Masters and PhD in Electrical Engineering from Stanford in 1990. Along with working for companies such as NeXT Inc., Media Vision, Xenon/Chromatic, and Interval Research, he continued at Stanford as Technical Director of the Center for Computer Research in Music and Acoustics, until joining the faculty of Princeton University in 1996, where he is now a Full Professor of Computer Science, with a joint appointment in Music.

Cook has published over 150 technical and music papers, books, and book chapters, and presented lectures throughout the world on the acoustics of the voice and musical instrument simulation, human perception of sound, and interactive devices for expressive musical performance. He has performed as a vocal soloist and as a computer musician throughout the world, and has recorded Compact Disks on the Lyricord Early Music Series Record Label with the vocal group Schola Discantus, and live electronic music with the group Interface on the Cycling 74 label. He was the recipient of a 2003 Guggenheim Fellowship, to write a new book on the subject of Technology and the Voice. Along with Princeton Music Professor Dan Trueman, Cook is the co-founder/director of the Princeton Laptop Orchestra (PLOrk), which recently received a Digital Learning Initiative grant from the MacArthur Foundation. In January of 2009 Cook was named a Fellow of the Association of Computing Machinery, for his contributions to "Computer Music, Physics-Based Sound Synthesis, and Voice Analysis/Synthesis.