

Christopher Schmandt

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Education

M.I.T., Master of Science, Visual Studies (Computer Graphics), 1980

M.I.T., Bachelor of Science, Computer Science, 1978

Professional Experience -- MIT

Media Laboratory, Principal Research Scientist, 1985-Present
Director, Speech + Mobility Group (formerly known as Speech Research Group)

Architecture Machine Group, Research Associate, 1980-1984

Architecture Machine Group, Research Assistant, 1979-1980

Architecture Machine Group, Graphics Programmer, 1977-1979

Departmental Undergraduate Research Opportunities Program Coordinator, 1984-Present

Laboratory Intellectual Property Committee 2001-present, chair 2002-2008

Departmental Committee on Graduate Studies, 1996-2001, 2005-2007

Sponsored Research Activities

Things That Think Research Consortium, MIT Media Lab, 2002-Present

Alerting and Mobile Messaging, Digital Life Consortium, MIT Media Lab, 1997-Present

Acoustical Cues to Discourse Structure, National Science Foundation, Principal Investigator, 1995-1998

Parsing Radio, News in the Future Consortium, MIT Media Lab, 1993-2000

Desktop Audio, SUN Microsystems, Inc., Principal Investigator, 1989-1996

Voice Interaction in a Hand Held Computer, Apple Computer, Principal Investigator, 1991-1993

Voice Interfaces for Network Services, AT&T, Principal Investigator, 1989-1991

Acoustic and Visual Cues for Speech Recognition, DARPA, co-Principal Investigator, 1986-1988

Personal Computers and Telephony, NTT Public Corporation, Principal Investigator, 1984-1989

Home Telecomputing, Atari, Inc., Principal Investigator, 1983

Professional Experience -- outside M.I.T

Professional Experience -- Intellectual Property

Co-inventor on 6 U.S. Patents

- 5,177,685 for "Automobile navigation system using real time spoken driving instructions"
- 6,728,348 for "System for storing voice recognizable identifiers using a limited input device such as a telephone key pad"
- 6,937,986 for "Automatic dynamic speech recognition vocabulary based on external sources of information"
- 7,098,776 for "Methods and apparatus for vibrotactile communication"
- 7,392,280 for "Method for summarization of threads in electronic mail"
- 7,738,637 "Interactive voice message retrieval"
- 7,443,283 for "Methods and apparatus for connecting an intimate group by exchanging awareness cues and text, voice instant messages, and two-way voice communications"
- 7,865,560 for "System for summarization of threads in electronic mail"
- 8,121,653 for "Methods and apparatus for autonomously managing communications using an intelligent intermediary"
- 8,135,128 for "Animatronic creatures that act as intermediaries between human users and a telephone system"

Co-inventor on U.S. Patent Applications

- 20020076009 "International dialing using spoken commands"
- 20030023688 "Voice-based message sorting and retrieval method"
- 20030081738 "Method and apparatus for improving access to numerical information in voice messages"
- 20030144846 "Method and system for modifying the behavior of an application based upon the application's grammar"
- 20030158903 "Calendar bar interface for electronic mail interaction"
- 20060239362 "Interactive voice message retrieval"
- 20070127704 "Methods and apparatus for autonomously managing communication using an intelligent intermediary"

Media Laboratory Intellectual Property Committee 2001 - present, chair 2002-2008

Expert legal testimony and engagements within the last five years, affiliated party in italics:

- *DDB v. Major League Baseball Advanced Media*, expert, 2004-2006
- *Collaboration Properties, Inc. v. Tandberg*, expert, 2005-2007
- *Ronald A. Katz v. Premiere Global Services et al.*, expert, 2007-2008

- Klausner Technologies v. *Comcast*, expert, 2008-2009
- Intellec Wireless v. *Research in Motion*, expert, 2009
- Klausner Technologies v. *Cisco*, expert, 2010
- Klausner Technologies v. *Avaya*, expert, 2010
- Phoenix Solutions, Inc v. *West Interactive Corp*, declaration, 2010
- Active Video v. *Verizon*, expert, 2011
- *Electronic Frontier Foundation* v. Personal Audio LLC, IPR expert, 2013
- Klausner Technologies v. *Fonality*, expert, 2014
- *HTC* v. Advanced Audio Devices, IPR expert, 2014
- Silver State Intellectual Technologies v. *Foursquare* IPR expert, 2014
- CallWave v. *Fonality*, expert, 2015
- Kecker & van Nest, consultant
- Durie Tangrie, consultant
- Ostrow Kaufman, consultant
- Klarquist Sparkman, consultant
- Paul Hastings, consultant

Professional Service

Associate Editor, International Journal on Human Computer Studies

Associate Editor, Journal of Personal and Ubiquitous Computing

Editorial Board, International Journal of Speech Technology

Editorial Board, Interactions (ACM)

Recurring member of program committees for CHI, UIST, CSCW, Ubicomp, Mobile HCI, and Pervasive

Conference Chair, CSCW 1996

Program Chair, UIST 1997

Publications

Most publications can be found at http://www.media.mit.edu/speech/sig_papers.html
or <http://living.media.mit.edu/publications.html>

Expanding social mobile games beyond the device screen (with Misha Sra) Journal of Personal and Ubiquitous Computing, 2015

NailO: Fingernails as an input surface (with Cindy Hsin-Liu Kao, Artem Dementyev, Joseph Paradiso) CHI 2015

MugShots: a Mug Display for Front & Back Stage Social Interaction in the Workplace (with Cindy Hsin-Liu Kao) Proceedings of TEI (Tangible and Embedded Interaction) 2015.

Mime: compact, low power 3D gesture sensing for interaction with head mounted displays (with Andrea

Spotz: A location-based approach to self-awareness (with Misha Sra) Proceedings of Persuasive 2013.

Setting the stage for interaction: A tablet application to augment group discussion in a seminar class (with Drew Harry and Eric Gordon) Proceedings of CSCW 2012.

Indoor Location Sensing using Geo-Magnetism (with Jaewoo Chung, Matt Donahoe, Ig-Jae Kim, Pedram Razavai and Micaela Wiseman) Proceedings of International Conference on Mobile Systems, Applications, and Services (Mobisys) 2011.

My second bike: a TV-enabled social and interactive riding experience (with Jaewoo Chung, Kuang Xu, Andrea Colaco, and Victor Li) Proceedings of IEEE Communications and Networking Conference, Jan 2010. *Are we there yet? - a temporally aware media player* (with Matt Adcock and Jaewoo Chung), Australian User Interface Conference (AUIC) 2008

Physical embodiments for mobile communication agents (with Stefan Marti), UIST 2005

Giving the caller the finger: collaborative responsibility for cellphone interruptions (with Stefan Marti) Extended Abstracts, CHI 2005

Active Messenger: email filtering and delivery in a heterogeneous network (with Stefan Marti) Human-Computer Interaction Journal (HCI) Volume 20 (2005)

WatchMe: communication and awareness between members of a closely-knit group (with Natalia Marmasse) Proceedings of Ubicomp 2004

Improving speech playback using time-compression and speech recognition (with Sunil Vemuri, Philip DeCamp, and Walter Bender) Proceedings of CHI 2004

Impromptu: managing networked audio applications for mobile users (with Kwan Lee, Jang Kim, and Mark Ackerman), Proceedings of MobiSys 2004

TalkBack: a conversational answering machine (with Vidya Lakshmiathy and Natalia Marmasse) Proceedings of UIST 2003

"ListenIn" to domestic environments from remote locations (with Gerardo Vallejo) Proceedings of the 2003 International Conference on Auditory Display (ICAD)

Safe & Sound: a wireless leash (with Natalia Marmasse) Extended Abstracts, Proceedings of CHI 2003

Mediated voice communication via mobile IP (with Jang Kim, Kwan Lee, Gerardo Vallejo, and Mark Ackerman), Proceedings of UIST 2002.

The Audio Notebook: Paper and pen interaction with structured speech (with Lisa Stifelman and Barry Arons), Proceedings of CHI 2001

Synthetic News Radio (with Keith Emmett) IBM Systems Journal, Vol. 39 Nos. 3-4, pp. 646-659, 2000.

Everywhere messaging (with Natalia Marmasse, Stefan Marti, Nitin Sawhney, and Sean Wheeler) IBM Systems Journal, Vol. 39 Nos. 3-4, pp. 660-677, 2000.

Location-aware information delivery with comMotion (with Natalia Marmasse). Proceedings of the

Nomadic Radio: Scalable and contextual notification for wearable audio messaging (with Nitin Sawhney), Proceedings of CHI 1999.

Speaking and listening on the run: Design for wearable audio computing (with Nitin Sawhney), Proceedings of International Symposium on Wearable Computing, 1998.

Audio Hallway: A virtual acoustic environment for browsing, Proceedings of UIST 1998.

Dynamic Soundscape: Mapping time to space for audio browsing (with Minoru Kobayashi), Proceedings of CHI 1997.

CLUES: Dynamic personalized message filtering (with Matt Marx), Proceedings of CSCW 1996.

Using acoustic structure in a hand-held audio playback device (with Deb Roy), IBM Systems Journal, Vol 35, Nos. 3 and 4, 1996.

Mailcall: Message presentation and navigation in a nonvisual environment (with Matt Marx), Proceedings of CHI 1996

AudioStreamer: Exploiting simultaneity for listening (with Atty Mullins), short paper, CHI 1995.

Multimedia momadic services on today's hardware, IEEE Network, September/October 1994.

Putting people first: Specifying proper names in speech interfaces (with Matt Marx), proceedings of UIST 1994.

Chatter: A conversational learning speech interface (with E. Ly) AAAI Workshop on Intelligent Multi-Media Multi-Modal Systems, 1994.

Voice Communication with Computers: Conversational Systems. New York: Van Nostrand Reinhold. 1994.

Capturing, structuring, and representing ubiquitous audio (with D. Hindus and C. Horner), ACM Transactions on Information Systems, Vol. 11, No. 4, October 1993.

Speech Recognition Architectures for Multimedia Environments, (with E. Ly and B. Arons), Proceedings of the 1993 AVIOS Conference, September 1993.

Phoneshell: the Telephone as Computer Terminal, Proceedings of the ACM Multimedia Conference, August 1993.

Voicenotes: A Speech Interface for a Hand-Held Voice Notetaker (with L. Stifelman, B. Arons, and E. Hulteen), Proceedings of INTERCHI'93, April 1993.

From Desktop Audio to Mobile Access: Opportunities for Voice in Computing, book chapter in Advances in Human-Computer Interaction, Vol. 4, H.R. Hartson and D. Hix editors. 1992.

Ubiquitous Audio: Capturing Spontaneous Collaboration (with D. Hindus), Proceedings of CSCW'92, November 1992.

Integrating Audio and Telephony in a Distributed Workstation Environment (with S. Angebrannt, R.

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