

Tara Rosenberger Shankar

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RESEARCH EXPERTISE AND INTERESTS

New media / new tool design; literacy theory and development (particularly writing and alternatives); learning sciences; multiliteracies/multimodality (particularly voice and sound); Universal Accessibility and disabilities; (post-)materialism and meaning; discourse and diversity; constructionism and project-based learning; participatory design.

EDUCATION

PHD MASSACHUSETTS INSTITUTE OF TECHNOLOGY, 2005 – Media Arts and Sciences
Dissertation Chair: Seymour Papert
Thesis Title: *Speaking on the Record*

MS MASSACHUSETTS INSTITUTE OF TECHNOLOGY, 1998 – Media Arts and Sciences

MS RENNELAER POLYTECHNIC INSTITUTE, 1995 – Communication and Rhetoric

BA UNIVERSITY OF WATERLOO, Waterloo, Ontario, Canada, 1993 – Rhetoric and Professional Writing, Music Performance

AWARDS

- Full grant invitation to attend the Battelle Endowment for Technology and Human Affairs' 'Institute on New Media and Writing Studies,' hosted at Ohio State University, August 2004.
- NSF full support to attend IEEE Symposia 'Programming for Educationally Disadvantaged' at Human Centric Computing Languages and Environments, Auckland, NZ, October, 2003
- MIT Media Laboratory Tuition Scholarship, Fall 2004
- MIT Media Laboratory Research Assistantship, 1996-2001, 2003-4
- Interval Research Corporation Fellowship, MIT, 1998-1999

PUBLICATIONS

Shankar, T. R. (under review). *Speaking on the Record: A Theory of Composition*. *Computers and Composition*. In C. Ball and B. Hawk (Eds.) Special Issue: Sound in/as Compositional Space: A Next Step in Multiliteracies.

Shankar, T. R. 2005. *Speaking on the Record*. PhD, Media Laboratory, Massachusetts Institute of Technology, Cambridge, MA.

Shankar, T. R. 2003. *Intersections of Literacy Acquisition and Programming*. Proceedings of the Symposia on Human Centric Computing Languages and Environments, Auckland, NZ, IEEE.

Shankar, T. R., Max VanKleek, Antonio Vicente, and Brian K. Smith. 2000. *Fugue: A Computer Mediated System that Supports Turn Negotiation*. Proceedings of the Thirty-Third Hawaii International Conference on System Sciences (HICSS), January 4-7, at Maui, HI.

Shankar, T. R., and Ron MacNeil. 1999. Prosodic Font: Translating Speech into Graphics. Proceedings of the Computer-Human Interaction Conference of the American Computing Machinery (CHI-ACM), May 15-20, at Pittsburgh, PA.

Rosenberger, T. M. 1998. Prosodic Font: Between the Spoken and the Written. Master of Science, Media Arts and Sciences, Massachusetts Institute of Technology, Cambridge.

PEER-REVIEWED PRESENTATIONS

Shankar, T. R. 2006. "You mean like a man asking me that?": One 7-year-old writes a book report by building and editing an explicit conversation with herself. Paper to be presented at AERA, San Francisco, CA, USA.

Shankar, T. R. 2005. Speaking on the Record: A New Theory and Practice for Language and Literacy. Conference on College Composition and Communication (CCCC), San Francisco, CA.

Shankar, T. R. 2003. Spoken Discussion and Speech Technology: A New Writing Process. Paper read at Conference on College Composition and Communication (CCCC), March 19-22, at New York City, New York.

Shankar, T. R. 2002. Making Talk the Writing Process? Paper read at Conference on Composition and Communication (CCCC), March 20-23, at Chicago, IL.

Shankar, T. R. 1999. Beyond Prosodic Font. Poster presented at Workshop on Non-Modal Vocal-Fold Vibration and Voice Quality, Satellite Meeting of the 14th International Congress of Phonetic Sciences (ICPhS), July 31, at Berkeley, CA.

Shankar, T. R. 1999. Representation of Turn-Taking in Computer Mediated Conversation. Paper read at Annual Meeting of the American Anthropological Association, November 17-21, at Chicago, IL.

UNPUBLISHED MANUSCRIPTS

Shankar, T. R. 2003. Language to Literacy Writing Process: Inventing Software for Low-Literacy Adults. Cambridge: MIT.

Shankar, T. R. 2002. User Evaluation of a Prototype Conversation Browser. Cambridge: MIT.

PROFESSIONAL EXPERIENCE

IBM Research, Yorktown Heights, NY; *Pre-Professional Programmer*, Summer 2002.

Designed, implemented and evaluated a prototype multi-person conversation audio browser. Wrote "User Evaluation of a Prototype Conversation Browser" report.

Media Laboratory, MIT, *Research Assistant*, 1998-2002.

Dr. Brian Smith, Critical Computing Group

Designed approaches to writing and editing with recorded speech.

Media Laboratory, MIT, *Research Assistant*, 1996-98.

Ron MacNeil, Intelligent Graphics and Interactive Cinema Groups

Developed *Prosodic Font*, a digital font animated by a description of speech prosody, intended to serve as an interface between speech recognition and writing interfaces. Developed a computer-mediated synchronous chat program, *Fugue*, inspired by turn-taking patterns in face-to-face spoken natural language.

Rensselaer Polytechnic Institute, *Research Assistant*, 1995-96.

Collaborated with Dr. Tim Stephens in quantitative instrument design to measure communication styles.

Rensselaer Polytechnic Institute, *Educational Multimedia Program Manager*, 1994-96.

Participated in academic team to develop new multimedia learning curriculum in Electrical Engineering, Management, and Manufacturing. Managed 20 part-time students and PC/Mac computer lab.

TEACHING EXPERIENCE

Two Elementary Schools, urban area, Spring 2004.

Taught 22 elementary students (ages 5-10) in both group and individual contexts principles of informational and creative composition in the course of evaluating novel technology.

“Learning with Computers” course, East Harlem, NYC, community center, 2002-3.

Initiated and taught a pre-GED course for disadvantaged adult students with elementary literacy skills to learn reading and composition skills using computer resources.

PROPOSALS AND GRANTS

“Spriting to Develop Literacy in Two Inquiry-Based Science Contexts,” Cavallo, D. (PI, MIT) and Schmandt, C. (co-PI, MIT) and Pearson, P. D. (collaborator, UC Berkeley); **Reading and Writing 2005**, IES; Position: Project Research Director, \$1.5M (under consideration)

OTHER PROFESSIONAL ACTIVITIES

Guest lectures:

“Speech Editing,” Speech Technology Course, Chris Schmandt (Instructor), MIT Media Laboratory, 2001

“Computational Work on Conversation Representation,” Interval Research Corp, Palo Alto, CA, March 1999

“Animation Techniques,” Multimedia course, Don Millard (Instructor), Rensselaer Polytechnic Institute, 1995

Peer Referee:

American Computing Machinery Special Interest Group (ACM SIG): International Conference on Computer-Human Interaction (CHI), 2003, 2005

Hawaii International Conference on System Sciences (HICSS), *Persistent Conversations* Mini-track, 2001, 2004, 2005

SKILLS

- Novel software interface/system design and prototyping
- Human centered and participatory design techniques
- Fluent with Word Processing, Page layout, Graphics/Image, Audio, Multimedia (e.g. MacroMedia Director) and Video Editing packages
- Programming skills: Application and applet development in Java SDK 1.0-1.4 (SWING, Java Sound API, FreeTTS libraries); MATLAB; some C/C++; some LISP, PYTHON, PERL and UNIX.
- Basic digital signal processing (DSP)
- Speech acoustic phonetic analysis

ORGANIZATION MEMBERSHIPS

American Educational Research Association (AERA)

National Council for Teachers of English (NCTE), Urbana, IL

IEEE Computer Society Learning Technology Task Force (LTF)

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REFEREES

Seymour Papert

Professor Emeritus of Learning Research and Media Technology

Program in Media Arts and Sciences

Staff contact: Jacqueline Karaaslanian

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David Cavallo

Research Scientist

MIT Media Laboratory

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