

Harvard Medical School

Name: Howard C. Shane, PhD

Place of Birth: Leominster, MA

Education

1969	BA	Sociology	University of Massachusetts at Amherst
1972	MA	Speech Pathology/Audiology	University of Massachusetts at Amherst
1975	PhD	Speech Pathology	Syracuse University

Doctoral Training

August 1974	Fellow	Speech Pathology	Mayo Clinic
September 1975			

Current Professional Licensure

1977 – Present	State of Massachusetts Lic # 1308
1973 – Present	American Speech & Hearing Assoc Lic # 001968557

Faculty Academic Appointments

1975-1977	Assistant Professor	Communication Sciences	University of Vermont
1978-1979	Assistant Professor	Communication Sciences	University of New Hampshire
1977-1995	Associate Professor	Department of Communication Studies	Emerson College
1983-1990	Associate Professor (visiting)	Department of Communication Science and Disorders	University of Massachusetts
1986-1995	Assistant Professor	Otology and Laryngology	Harvard Medical School
1996-	Associate Professor	Otology and Laryngology	Harvard Medical School
1997-	Professor	Communication Science and Disorders	MGH Institute of Health Professions

Appointments at Hospitals/Affiliated Institutions

1977 -	Associate Scientist	Otolaryngology	Children's Hospital Boston
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Other Professional Positions

2002-	Director, Monarch School for Children	Cleveland, Ohio
		One day per month

2006 -	Director, Model Autism Program (MAP) Boston Public Schools	Boston, MA Four hours per week
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Major Administrative Leadership Positions

Local

1977-1991	Director, Speech Pathology & Audiology, Developmental Evaluation Clinic	Children's Hospital Boston
1985-2005	Director, Communication Enhancement Center	Children's Hospital Boston
2005-	Director, Center for Communication Enhancement	Children's Hospital Boston at Waltham

Committee Service

Local

2000- 2010-	Member, Clinical Operations Committee Member, Research Operations Committee	Children's Hospital Boston Children's Hospital Boston
2010-	Member, ORL Finance Committee	Children's Hospital Boston
2011-	Member, Virtual Center on Autism	Children's Hospital Boston
2012-	Member, Hearing Technology Center Revisited (Ad hoc)	Children's Hospital Boston

Regional

1983-1984	Committee Member, Committee on Adaptive Equipment Services	Massachusetts Department of Mental Retardation
1996-1997	Advisory Board	New England Center for Children

National and International

1983-1984	Chairperson, Committee on Augmentative Communication	American Association on Mental Deficiency
1991-1992	Panel Member, Consensus Validation Project	National Institute on Disability and Rehabilitation Research
1996-1997	Member, National Strategic Research Plan on Speech and Hearing Disorders	National Institute on Deafness and other Communication

Professional Societies

1970-	American Speech-Language-Hearing Association	Member
1981-1984		Chairperson, Committee on Non-Speech Communication
1996-1997		Committee Member, Speech-Language Pathology 2000
1980-1990	Northeast Communication Enhancement Group	Member
1982-1984	American Association on Mental Deficiency	Member
1983-1984	Chairperson, Speech Pathology	American Association on Mental Deficiency, Northeast Region
1988	United States Society for Augmentative and	Member

1985-1991	Alternative Communication 1988-1989 International Society on Augmentative and Alternative Communication 1983 - 1985	Co-Chair, Committee on Public Awareness Founding Member Vice President for Conventions, Conventions and Scientific Meetings Co-Chair, Third International Conference on Augmentative and Alternative Communication Member
1991-1994	Massachusetts Speech-Language-Hearing Association	Member
2012	Committee: Creation of Position Paper on Facilitated Communication	Member

Editorial Activities

Other Editorial Roles

1981-1982	Consultant	Journal of the Association of the Severely Handicapped
1982 - 1985-1987	Editorial Board Member	Exceptional Parent Magazine
1985-1987	Editorial Board Member	Language, Speech & Hearing Services
1992-1994	Editorial Board Member	American Journal Speech & Language Pathology
1994-1996	Editorial Board Member	AAC: Augmentative and Alternative Communication
2012-	Ad hoc Reviewer	Journal of Autism and Developmental Disabilities

Honors and Prizes

1989	Fellow	American Speech-Language- Hearing Association	Association Distinction
1989	Finalist	Smithsonian Institution Computerworld	Technology Innovation
1993	Pioneer Award	Massachusetts Federation of the Council for Exceptional Children	Technology in Clinical Practice
1995	Kleffner Clinical Achievement Award	Massachusetts Speech-Language- Hearing Association	Technology Achievements
2002	Teacher of the Year	MGH Institute of Health Professions	Recognition as Teacher
2007	The Honors of the Association	American Speech-Language - Hearing Association	Highest Honor of the Association

Report of Funded and Unfunded Projects

Funding Information

Past

- 1990-2004 Massachusetts Assistive Technology Partnership
H224100036-96 TECH ACT PI
PI
The two primary goals of this federal grant initiative included: establish public policy regarding assistive technology for citizens of Massachusetts and provide training in the use of assistive technology.
- 1992-1994 Computer Voice Recognition by Dysarthric Speakers with Cerebral Palsy
United Cerebral Palsy
PI
The primary goal of this grant was to determine the effectiveness of voice recognition for individuals with dysarthric speech.
- 1998-2002 Rehabilitation Engineering Research Center on Communication Enhancement (RERC)
H133E98006 NIDRR
Co-PI
The overall goals of this federal project were to connect clinical centers and academia with their counterparts in business and industry with computer and mechanical engineers and with people who ultimately will use it. My specific contribution was to establish technology based communication solutions for persons on the autism spectrum.
- 2002-2003 The Internet as a Service Delivery Medium for Assistive Technology
Deborah Munroe Noonan Memorial Fund
Project PI
The goal of this fund was to promote interaction between Communication Enhancement staff and a child's professional team. Also to implement customization of a student's software at a remote site.
- 2004-2006 Caroline Bass Fund
Project Director
The overall goal of this privately funded initiative was to create computer applications for persons who are deaf and hard of hearing.
- 2006-2007 Caroline Levine Charitable Trust Fund
Project Director
The outcome of this grant was the creation of the Puddingstone Place Software for children.
- 2008 New Cassel Foundation
Project Director
The overall goal of this grant was to teach language concepts using technology.
- 2008 Newman's Own Foundation.
PI
The goal of this grant was to advance work to create a state-of-the-art technology for children.
- Current**
- 2006-2012 CVS/Caremark Charitable Trust Grant
PI (\$500,000)

The aim of this project is to create a virtual world where children with complex communication sensory intellectual and learning problems can acquire skills and experience interaction not possible through training venues.

- 2009-2012 The Camille Belknap Fund
PI (\$225,000)
The major goal of this fund is to be utilized for the clinical instruction and technology development for persons with autism spectrum disorders and other developmental disabilities.
- 2009-2013 Rehabilitation Engineering Research Center on Communication Enhancement (RERC) H133E080011 NIDRR
Co-PI
The RERC is a NIDRR funded project aimed at exploring augmentative and alternative communication systems and devices for persons with complex communication impairments. As part of this effort is the creation and evaluation of the latest technologies, products and methods to benefit persons with autism. This includes the development of a virtual learning environment (*Puddingstone Learning Adventure*) and apps of handheld media devices (e.g., M-STARR).
- 2010-2013 Do animations facilitate symbol understanding in children with autism?
H133G100187 NIDRR
Co-PI
This project explores the development of graphic symbol set and delivery system for children with autism. It also includes systematic study of the efficacy of these graphics as a language alternative.
- 2010-2014 The Camille Belknap Fund
PI (\$25,000)
Additional contribution to The Camille Belknap Fund

Report of Local Teaching and Training

Teaching of Students in Courses

HMS/HSDN/DMS Course

1994	Department of Continuing Education Michael J. Bresnan Child Neurology Course Medical students	Single Presentation Harvard Medical School
1997-2002	Augmentative Communication Graduate student	MGH Institute of Health Professions 28 hours per year
1997-	Communication Disorders and Autism Graduate student	MGH Institute of Health Professions 28 hours per year
1997-	Motor Speech Disorders Graduate student	MGH Institute of Health Professions 28 hours per year
2012	Autism Seminar	MGH Institute of Health Professions 40 Graduate Students
National		
2011	Enhancing communication through visual support and technology within a visually	Central New York Speech and Hearing Association

immersive environment. 150 participants
Syracuse

International

2010-2011 Augmentative and Alternative Communication
Graduate student King Saud University
30 hours per semester

Clinical Supervisory and Training Responsibilities

1977-2006 Ambulatory Otolaryngology-Center for Communication Enhancement
Clinic Preceptor/Children’s Hospital Boston One-half session per week
1977- Ambulatory Otolaryngology-Center for Communication Enhancement
Ongoing Consultation/ORL Residents and Fellows One-half session per month
2006- Ambulatory Otolaryngology-Center for Communication Enhancement
Clinic Preceptor/Children’s Hospital Boston at Waltham One-half session per week

Laboratory and Other Research Supervisory and Training Responsibilities

1977- Supervision of Graduate interns Mentorship twice weekly for five months

Formal Teaching of Peers (e.g., CME and other continuing education courses)

1986 Clinical and Educational Use of the Micro-Computer for Children with Developmental Disabilities
University of Puerto Rico San Juan
Single Presentation
1986 Augmentative Communication Services for Children: Evaluation of Readiness and Intervention Procedures
University of Puerto Rico San Juan
Single Presentation
1987 Voice System Computer Based Applications for People with Severe Writing Impairments
University of Miami Miami
Single Presentation
1991 Meeting the Challenge of Persons with Multiple Diagnoses: Focus on Communication
Walter E. Fernald School Waltham
Single Presentation
1991 Integrating Sign Language into a Computerized AAC Strategy
The Pennsylvania Assistive Device Center King of Prussia
Single Presentation
1991 A New Expressive Communication Strategy
Southwest Alternative Augmentative Conference Snowmass
Single Presentation
1991 Rate Acceleration: With and Without Technology
Southwest Alternative Communication Strategy Snowmass

1992	When Technology Makes a Difference: Critical Issues in Special Education Massachusetts Information Technology Conference	Single Presentation Braintree
1992	Communication Technology for People with Communication Disabilities American Society for Engineering Education	Single Presentation Toledo
1995	Alternative and Augmentative Communication New England School Psychology Conference	Single Presentation Durham
1994	Assistive Technology to Aid Communication University of Puerto Rico	Single Presentation San Juan
2002	The Use of Visual Supports: Enhancing Communication in Improving Problem Behaviors in Children with Autism and Related Disorders Rehabilitation Engineering and Assistive Technology Society of North America	Single Presentation Washington, DC
2003	Using Technology to Enhance Communication of Students with Autism United Cerebral Palsy Association	Single Presentation New York
2004	AAC and Autism: Current Practice and Future Directions California State University Conference	Single Presentation Los Angeles
2006	Using the Procedural Knowledge Profile to © Establish Effective Communication Goals and Objectives	Single Presentation
2006	Autism Society of American National Conference	Providence Single Presentation
2007	Using Observational Learning to Improve Language Comprehension Annual Milestones Conference	Medfield Heights Single Presentation
2007	Electronic Media as a Treatment Tool Current Trends in Autism Conference	Boston Single Presentation
2009	Enhancing Communication in Autism through Visual Supports and Technology State University of New York	Fredonia Single Presentation
<u>Local Invited Presentations</u>		
1987	Technology Can Lead to Employment Children's Hospital Boston	Single Presentation
2000	Augmentative and Alternative Communication Children's Hospital Boston	Single Presentation
2011	Current Autism Treatment Models in the Center for Communication Enhancement Children's Hospital Boston	Single Presentation
2012	Augmentative Communication Northeast Otolaryngology Society (NEOS) Boston	Single Presentation

Report of Regional, National and International Invited Teaching and Presentations - The presentations from outside entities are so noted and sponsor is indicated.

Invited Presentations and Courses

Regional

- 1986 Use of technology for persons with communication disorders/Invited Lecture
University of Rhode Island, Visiting Scholar Program, Kingston
- 1986 Access to communication innovations/Invited Lecture
Boston University, Boston
- 1986 Exploring possibilities for communication for severely handicapped and non-speaking
people/Invited Lecture
Vermont Department of Mental Health, White River Junction
- 1987 Human factors for scientists with disabilities/Panel Participant
American Association for the Advancement of Science Annual Meeting, Boston
- 1989 Enhancing communication in the multi-handicapped person functioning in the
0-2 developmental range /Invited Lecture/Co-Presenter
Boston University Tenth Annual Communication Disorders Conference, Boston
- 1989 Augmented communication intervention: a clinical model/Invited Lecture/Co-Presenter
Boston University Tenth Annual Communication Disorders Conference, Boston
- 1989 Augmentative communication intervention: a clinical model/Invited Lecture/Co-Presenter
Braintree Hospital Tenth Annual Traumatic Head Injury Conference, Braintree
- 1989 Adaptive technology, today and tomorrow/Panel Participant
- 1994 Augmentative and alternative communication persons with traumatic brain injury/
Workshop
Northern New England School Psychology Conference, Durham
- 1995 Communication disorder assessment/Invited Lecture
Maine Department of Education, Division of Vocational Rehabilitation for the Blind
and Visually Impaired, Portland
- 1995 Facilitated communication/Invited Lecture
Massachusetts Department of Mental Retardation and ARC, Boston
- 1997 Clinical ethical dilemmas facing speech-language pathologists and audiologists/Invited Lecture
Spaulding Rehabilitation Hospital, Boston
- 1997 The eye as an access and communication mode technology '97/Invited Lecture
Massachusetts Assistive Technology Program, Boston
- 1997 Assistive technology: progress and opportunities /Paper
The Engineering Innovation Show, Massachusetts Assistive Technology Program, Boston
- 1998 Diagnosed and undiagnosed childhood communication disorders and differences/
Invited Lecture
National Institute on Deafness and Other Communication Disorders, Boston
- 2006 Systematic use of video supports for persons with autism spectrum disorders/Invited
Lecture
New Hampshire Speech-Language-Hearing Association Spring Conference, Concord
- 2007 The visual immersion program for persons with autism spectrum disorders
Invited lecture/Co-Presenter
New Hampshire Speech-Language Hearing Association Spring Conference,
Concord

- 2007 Electronic media as a treatment tool/Seminar
Current Trends in Autism Conference, Boston
- 2007 Say it with pictures: visual communication for persons with Autism/Panel Participant
Current Trends in Autism Conference, Boston
- 2008 Autism and augmentative communication/ Invited Lecture
Current Trends in Autism Conference, Burlington
- 2008 Teaching language concepts within the visual immersion program/Invited Lecture
Council for Exceptional Children Annual Conference, Boston
- 2008 What clinical experience tells us about visual process and learning with persons on the
autism spectrum/Invited Lecture
Learning and Brain Center, Boston
- 2012 Aligning the feature of mobile devices (family) with the characteristics of autism/
Invited lecture
Fifth Annual Leadership Conference, University of Massachusetts
Amherst

National

- 1980 Systems for non-speaking persons/Invited Lecture
The President's Committee on Mental Retardation, Washington, DC
- 1980 Perspectives in non-speech communication/Invited Lecture
Goldwater Memorial Hospital, New York
- 1981 Implications of augmentative communication in mental retardation/Invited Lecture
Albert Einstein College of Medicine, Bronx
- 1983 Factors influencing progress using communication aids vs. manual sign systems for
Children/Invited Lecture
Mount Sinai Medical School Conference on Communicative Disorders, New York
- 1986 Computer use in education and communication/Invited Lecture
Northwest Regional International Society for Augmentative and Alternative
Communication, Portland
- 1986 Augmentative and alternative communication/Invited Lecture
Oregon State System of Higher Education, Teaching Research Division,
Monmouth
- 1986 Facts and fiction about augmentative and alternative communication/Plenary Talk
Virginia Department of Rehabilitation Services Conference, Fishersville
- 1986 State of the art in augmentative and alternative communication/Keynote Speaker
Colorado Department of Education, Denver
- 1987 Communication as a bridge to independence/Plenary Talk
Penrose Hospital, Colorado Springs
- 1987 Dedicated and general purpose approaches to enhance spoken and written

- communication/Invited Lecture
Louisiana State University Medical Center, Shreveport
- 1987 Voice system computer based applications for people with severe writing
Impairments/Invited Lecture
Louisiana State University Medical Center, Shreveport
- 1988 Successful employment resulting from arch intervention strategies/Invited Lecture/
Co-Presenter
International Society for Augmentative and Alternative Communication, Biennial
Conference, Anaheim
- 1988 Cognition and augmentative communication-a feature matching approach
Invited Lecture/Co-Presenter
Association for the Severely Handicapped Annual Convention, Washington DC
- 1989 Matching severely speech & writing impaired children and adults using technical
intervention procedures/Plenary Talk
Dallas Easter Seal Society for Children, Dallas
- 1989 Augmentative communication/Invited Lecture
Howard University, Washington, DC
- 1989 Augmentative communication with persons functioning in the 0-2 year
developmental level/Invited Lecture/Co-Presenter
American Speech-Language-Hearing Association Annual Convention, St. Louis
- 1992 The integration of communication devices into the classroom and the real world
United Cerebral Palsy Association of New York State, New York
- 1993 United Cerebral Palsy Association Telephone Conference: United Cerebral Palsy
Research Update
- 1994 Validation procedures for facilitated communication/Invited Lecture
Conference for Disabled Persons Protection Commission, New York
- 1995 Assessment in augmentative and alternative communication: across the age span/
Invited Lecture/Co-Presenter
American Speech-Language-Hearing Association Annual Convention,
Orlando
- 1996 Technology and persons with disabilities/Invited Lecture/Co-Presenter
California State University Annual Conference, Northridge
- 1996 Ethical and legal issue in facilitated communication/Paper
The International Conference on Mental Retardation, Washington, DC
- 1997 The knowledge navigator: a dynamic tool for creating instructional solutions/
Invited Lecture/Co-Presenter
California State University Annual Conference, Northridge
- 1997 Fads, bandwagons and data based approaches: can we tell the difference
Indiana Speech-Language-Hearing Association Convention, Indianapolis
- 1997 Feature matching approach to the selection of AAC devices and intervention
strategies/Invited Lecture
Indiana Speech-Language-Hearing Association Convention, Indianapolis
- 1997 Selection of augmentative and alternative communication systems and strategies
integration into the classroom/Invited Lecture
Pittsburgh
- 1997 Talking environments: a new graphical communication strategy, microcomputer
technology in special education and rehabilitation/Invited Lecture
Closing the Gap Annual Conference, Minneapolis
- 1998 Use of computerized graphical metaphor to facilitate word retrieval in aphasia/
Invited Lecture

- 1999 American Speech-Language-Hearing Association Annual Convention, San Antonio
Assistive technology: fads, fantasy and reality in the new millennium/Invited Lecture
Eleventh Wisconsin Conference on Augmentative Alternative Communication
and Assistive Technology, Eau Claire
- 2001 Supports to enhance communication and improving problem behaviors/
Paper/Invited Lecture/Co-Presenter
American Speech-Language-Hearing Association Annual Convention, New Orleans
- 2002 Autism and AAC: visual supports to enhance communication in autism and related
disorders
Korneich Technology Center and RERC on Communication Enhancement,
Albertson
- 2002 Recognition theory and application for computer generated entities/Invited Lecture/
Co-Presenter
Southeast Regional Federal Labs Consortium Annual Conference,
Orlando
- 2002 The application of a new model of pattern recognition for movement analysis
and speech recognition/Paper/Co-Presenter
Assistive Technology Industry Annual Conference, Orlando
- 2002 Investigation into the use of intelligent agents in children evidencing
autism/Invited Lecture/Co-Presenter
American Speech-Language-Hearing Association Annual Conference,
New Orleans
- 2002 A comprehensive look at visual supports for persons with autism spectrum
disorder/Invited Lecture/Co-presenter
Summit Educational Resources, Getzville
The internet as a service delivery medium for assistive technology/Invited Lecture
American Speech-Language-Hearing Association Annual Conference, Chicago
- 2003 Using automatic voice recognition with people with dysarthric speech/
Invited Lecture/Co-Presenter
Assistive Technology Industry Conference, Orlando
- 2004 A comprehensive model for use of visual supports for persons on the autism
spectrum/Invited Lecture
Behavior Strategies Second Annual Autism Conference, Columbus
- 2004 Assistive technology lecture: challenges to the federal laboratory/Invited Lecture/
Co-Presenter
Federal Laboratory Consortium for Technology Transfer, Orlando
- 2004 Monarch national language curriculum generalization of concepts/Invited Lecture/
Co-Presenter
American-Speech-Language Hearing Association Annual Convention, Philadelphia
- 2005 Managing autism outcomes: the participation, accuracy and independence
scales/Invited Lecture/Co-Presenter
American Speech-Language-Hearing-Association Annual Convention, San Diego
- 2005 Electronic screen media for persons with autism spectrum disorders/Invited Lecture/
Co-Presenter
American Speech-Language-Hearing Association Annual Convention, San Diego

- 2005 Video technology for the language instruction for ASD/Invited Lecture
American Speech-Language-Hearing Association Annual Convention, San Diego
- 2006 All things visual/Panel Discussion
Bellefaire JCB Conference, Shaker Heights
- 2006 AAC and autism: current practice and future directions/Invited Lecture/Co-Presenter
California State University Annual Conference, Los Angeles
- 2006 Practical applications of observation learning (video modeling) for improving
learning and communication/Invited Lecture
Annual Milestones Conference, Cleveland
- 2006 Video technology for language instruction for children with ASD/Invited
Lecture/Co-Presenter
American Speech-Language-Hearing Association Annual Convention, Miami
- 2006 Access to AAC: present, past, and future/Invited Lecture
Twenty-First Annual International Technology Persons with Disabilities
Conference, Los Angeles
- 2007 Visual immersion program: visual communication for persons on the autism spectrum/
Invited Lecture/Co-Presenter
American Speech-Language-Hearing Association Annual Conference,
Boston
- 2008 Applying the visual strengths of persons on the autism spectrum to communication
intervention/Invited Lecture
Michigan State University Annual Oyer Lecture, East Lansing
- 2008 Using technology to teach hard to learn language concepts to children on the autism
spectrum/Invited Lecture
Crossroads Conference on Communication Disorders, Purdue University, West Lafayette
- 2008 Teaching language concepts (TLC): language instruction for persons with
autism/Invited Lecture/Co-Presenter
California State University Annual Conference, Los Angeles
- 2008 Use of electronic media to promote acquisition of action verbs and
prepositions/Invited Lecture
Autism One Annual Conference, Chicago
- 2008 Applying the visual strengths of persons on the autism spectrum to
communication intervention/Invited Lecture/Visiting Professor
Graduate students, Michigan State University, Ann Arbor
- 2008 Video technology for language instruction for children with autism
spectrum disorder/Invited Lecture/Co-Presenter
American Speech-Language-Hearing-Association Annual Convention, Chicago
- 2009 Use of electronic media to teach hard to learn language concepts for person with autism /
Invited Lecture
Pacific Rim Conference, Honolulu
- 2009 Using technology to educate persons with autism spectrum disorder: do professionals
get a passing grade/Invited Lecture
Pacific Rim Conference, Honolulu
- 2009 Does animation improve the acquisition of hard to learn language concepts/Invited
Lecture
Milestones 2009 Autism/Asperger's Conference, Cleveland Heights
- 2009 Using technology to educate persons with autism spectrum disorder: do professionals
get a passing grade/Keynote Address
Behavior Analysis Association of Michigan, Eastern Michigan University, Ypsilati

- 2009 Animated versus static graphic symbols: effects on guessability, name agreement, and identification
Invited Lecture/Co-Presenter
California State University Annual Conference, Los Angeles
- 2009 AAC update from the RERC on communication enhancement/Invited Lecture
Co-Presenter
Twenty-fourth International Conference on technology and persons with disabilities
Los Angeles
- 2009 Effects of animation on guessability & identification of graphic symbols/Invited Lecture
Co-Presenter
American Speech-Language-Hearing Association Annual Convention, New Orleans
- 2009 The efficacy of teaching language concepts to children with autism
Invited Lecture/Co-Presenter
American Speech-Language-Hearing-Association Annual Convention, New Orleans
- 2009 The Future of Assistive Technology and Autism, Keynote Address, University of Wisconsin, Milwaukee
- 2009 Does animation improve the acquisition of hard to learn language concepts?
Invited Lecture
Milestones Conference, Cleveland
- 2010 Emerging developments in augmentative and alternative communication/Invited Lecture
Co-Presenter
California State University Annual Conference, San Diego
- 2010 Effects of a visual immersion experience on communication in autism/ Invited Lecture
Co- Presenter
American Speech-Language-Hearing Association Annual Convention
Philadelphia
- 2011 Effects of animation: a comparison of two graphic symbol sets
Invited Lecture
American Speech-Language-Hearing Association Annual Convention
San Diego
- 2011 Aligning the features of assistive technology with the characteristics of autism.
Invited Lecture/Paper
Annual KiDA Autism Summit, Irvine
- 2011 Teaching language concepts the visual way: The Monarch Model
Invited Lecture
Tenth Annual Milestones Conference, Cleveland
- 2012 Effects of animation on iconicity of symbols by SLP Students
Co-Presenter/Handout
American Speech-Language-Hearing Association Annual Convention, Atlanta
- 2012 A comparison of instruction-following cues in children with autism
Co-Presenter/Handout
American Speech-Language-Hearing Association Annual Convention, Atlanta
- 2013 The effect of environmental sounds on the guessability of animated graphic symbols
Invited Lecture/Co-presenter. Paper presented at
American Speech-Language-Hearing Association Annual Convention
Chicago

- 2013 Mobile device and app selection: who's driving the decision process?
Invited Lecture/Co-presenter. Paper presented at
American Speech-Language-Hearing Association Annual Convention
Chicago
- 2014 Effects of animation on identification of symbols by children with autism.
Co-presenter. Paper presented at
American Speech-Language-Hearing Association Annual Convention
Orlando
- Miracles in autism treatment: helping parents become better decision-makers
Co-presenter. Paper presented at
American Speech-Language-Hearing Association
Orlando

International

- 1981 Differential diagnosis of children with apraxia of speech
Invited Lecture (Distinguished)
Medical Faculty, University of Lund, Sweden
- 1981 Voice recognition/Consultation
Swedish Institute of Assistive Technology, Vinsta, Sweden
- 1985 Trends in communication aid technology for the severely speech impaired/
Invited Lecture (Distinguished)
Spastic Society Conference, Oxford, England
- 1988 Augmentative communication/Invited Lecture
Newfoundland Association for Community Living, St. John's Newfoundland, Canada
- 1988 Human factors for scientists with disabilities/Invited Lecture
American Association for the Advancement of Science
Newfoundland Association for Community Living, St. John's Newfoundland, Canada
- 1988 Techniques to control computers and assistive devices for the physically disabled
Invited Lecture/Co-Presenter
Rehabilitation Engineering Society of North America Annual Convention, Montreal, Canada
- 1991 Improving the communication of persons of all ages with little or no speech/Seminar
Centro de Educacion Cientifica, Centro Fedico Docente La Trinidad Caracas, Venezuela
- 1995 Bandwagons, visions and assistive technology/Keynote Address
Fourth Annual Conference on Research, St. Amant Centre, Inc., Winnipeg, Canada
- 1996 The selection of AAC devices and strategies using a feature-matching model. Special
Education Technology/Invited Lecture
Special Education Technology, Vancouver, British Columbia, Canada
- 2005 The systematic use of visual supports for persons on the autism spectrum/Invited Lecture
Centro Benedetta D'Intino, Milan
- 2006 All things visual/Invited Lecture
Special Education Technology, Vancouver, British Columbia, Canada
- 2008 Role of AAC in the Management of Autism/Seminar
XLII Congresso Nazionale Delle Societa' Italian, DiFoniatria I Logopedia, Milan
- 2008 Images for communication: strategies for visual communication for persons on the autism
spectrum/Seminar
Centro Benedetta D'Intino, Milan

Report of Clinical Activities and Innovations

Current Licensure and Certification

1972	Certificate of Clinical Competence, American Speech-Language-Hearing Association
1984-	Massachusetts Speech Pathology License

Practice Activities

1977- 2005	Ambulatory Care	Center for Communication Enhancement, Children's Hospital Boston	Four Sessions per week
2005-	Ambulatory Care	Center for Communication Enhancement, Children's Hospital Boston at Waltham	Four Sessions per week

Clinical Innovations

Assistive Technology
Children's Hospital Boston
Children's Hospital Boston at Waltham

The clinical focus of my 34-year clinical career at Children's Hospital Boston has been with persons who evidence complex communication disorders and in most cases have no functional speech. Individuals with such extreme communication disorders were, prior to a humane enlightenment period that began in the mid 1970's, living mainly in vast state institutions or kept at home receiving woefully inadequate clinical and educational services. Since my earliest days in the former Developmental Evaluation Clinic, and Hearing and Speech Division at Children's Hospital Boston, I have identified and established clinical evaluation and intervention techniques and strategies with a population for whom few models existed. Initially I systematized evaluations by creating protocols that did not penalize or rule out capacity because the patient could not speak or move. In order to link these more accurate assessment findings to the burgeoning field of assistive communication technology, I designed a feature-matching scheme that systematically linked a patient's deficits and strengths to appropriate speech-generating devices. This organized approach to assistive device selection is now commonplace in clinical centers throughout the world. The Communication Enhancement Center that I established and direct remains the oldest and largest program in the world having a clinical focus on solving complex communication disorders with innovative assistive technology. Furthermore, the manner and intensity with which Children's Hospital Boston now provides augmentative communication options to in-patients unable to speak due to complex surgical procedures is another clinical model that has been adopted worldwide (i.e., we now have a 1.0 FTE, augmentative communication specialist in house). Another innovative strategy included a mobile in-the-home assistive technology unit that provided AT evaluations to non-speaking patients too frail to come to the Hospital. Finally, when the clinical needs of patients could not be met by existing technology, I have painstakingly designed and sought avenues to develop technological tools that would meet those needs. As a result more than a dozen software programs and several hardware solutions (see below) have resulted.

Report of Education of Patients and Service to the Community

Activities

- 1982-1983 Comprehensive System for Personnel Development
(Speech Pathology) Massachusetts Department of Education
- 1983 Massachusetts Department of Education, Boston/Clinician
Integrated Applications of Computer Technology for Severely Physically
Handicapped Students
- 1983-1984 Ad hoc Committee on Non-Speaking Children
Massachusetts Department of Education
- 1989-1991 Member, Advisory Board on Special Education
Boston Public Schools, Boston, MA
- 1991-1994 Appointed Member, Massachusetts Developmental Disability Council
State of Massachusetts
- 1993 *PBS Frontline on Facilitated Communication*
Interview regarding theory, practice and controversy of facilitated
communication
- 1993 *60 Minutes* CBS
Interview regarding the controversy of facilitated communication
- 1993 *Now* NBC News Program
Interview regarding the controversy of facilitated communication
- 1996 *PBS Frontline on Facilitated Communication*
Interview regarding theory, practice and controversy of facilitated
communication (Rebroadcast)
- 1999 Autism Support Center/Clinician
Presentation pertaining to autism. Boston, MA
- 2001 Computer Software for Listening and Learning with a Cochlear
Implant/Clinician
Minuteman Implant Club
Sturbridge, MA
- 2002 Advisory Board, Learning Disabilities Association of Massachusetts
Boston, MA
- 2002 Advisory Board, Learning Disabilities Association of Massachusetts
- 2006 Committee Member, Autism Advisory Board
Boston Public Schools, Boston, MA
- 2007 Presentation to parents of children on the autism spectrum
Nantucket, MA
- 2007-
2011 Autism Consultant, City of Boston
Participant in Apple Computer's World Wide Web Keynote Series:
Utilization of the iPad by children on the autism spectrum
- 2011 KiDA 3rd Annual Summit on Autism presentation regarding Technology
Today
University of California, Irvine, CA
- 2012 *20/20* ABC appearance regarding Dangers of Facilitated Communication
Broadcast date - January 6, 2012

Educational Material for Patients and the Lay Community

Books, monographs, articles and presentations in other media

2001	The children's hospital guide to your child's health and development	Co-editor	Educational resource for parents
Educational material or curricula developed for non-professional students			
1978	Communication boards: help for the child unable to talk	Co-author	Educational article published in Exceptional Parent F19-22
Patient educational material			
1977	Looking forward: A guidebook for the laryngectomy	Co-author	Patient education guidebook
1986	Alternative and augmentative communication education booklet	Co-author	Patient education booklet
1994	The clinical and sociological phenomenon of facilitated communication	Author	Information for families and professionals regarding facilitated communication

Recognition

1992	Isabelle & Leonard Goldenson Award	United Cerebral Palsy Association Research in Medicine and Technology
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Report of Scholarship

Publications

Research Investigations

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1. **Shane HC.** The efficacy of utilizing the initial teaching alphabet for aphonic communication. Proceedings: 1974 Conference on Engineering Devices in Rehabilitation 1974;p.68-91.

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1. **Shane HC.** I've never seen a person who doesn't communicate. In: Persky R, Clifton A, McLean B, Stein J, eds. Mealtimes for the severely and profoundly handicapped: new concepts and attitudes. Baltimore: University Park Press; 1977. p.21-4.
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Books/Textbooks for the medical or scientific community

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2. **Shane HC**, Weiss-Kapp S. Visual language in autism. San Diego: Plural Publishing, 2007.
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Patent educational material

1. Visual communication graphic symbols (350 animated graphics)

Abstracts, Poster Presentations and Exhibits Presented at Professional Meetings

Poster Presentations:

1. **Shane HC**, Tourian M, Weiss-Kapp S. lecture; Managing Autism Outcomes: The Participation, Accuracy, and Independence Scales. American Speech-Language Hearing Association 2004
2. **Shane HC**, Kearns W, Tourian, M, Weis-Kapp S. lecture; Monarch National Language Curriculum for Generalization of Language Concepts. American Speech-Language-Hearing Association 2004
3. **Shane HC**, Jeans, C. lecture; Teaching language concepts to adults with autism spectrum disorders. American Speech-Language-Hearing Association 2010