

Georgia Institute of Technology  
Center for Assistive Technology and Environmental Access (CATEA)  
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**Research Interests**

My research interests are in examining environmental design issues related to accessibility and investigating assessment methodologies that measure the environment's impact on participation. I have recently focused on descriptive analyses of assessment instruments with a person-environment fit focus, development of a context-relevant communication system for workers with speech and language impairments, classification of environmental features in informal learning environments, and investigation of universally designed exhibit interpretation. Currently, I am concentrating on developing real-time audio interpretation techniques for exhibit dynamics at zoos and aquaria.

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**Education**

|              |   |   |
|--------------|---|---|
| 1992-1996    | University of Florida<br>Gainesville, Florida       | B.A.<br>Communication Sciences and Disorders      |
| 1997-1999    | University of Florida<br>Gainesville, Florida       | M.A.<br>Communication Sciences and Disorders      |
| 2007-Present | Georgia Institute of Technology<br>Atlanta, Georgia | Ph.D. (expected 2012)<br>Human-Centered Computing |

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**Appointments and Positions****Academic**

|              |   |                      |
|--------------|---|----------------------|
| 2004-Present | Georgia Institute of Technology<br>CATEA<br>Atlanta, GA                             | Research Scientist   |
| 2007-2008    | University of Southern California<br>Andrus Gerontology Center<br>Los Angeles, CA   | Part-Time Instructor |
| 2006         | Georgia State University<br>Communications Department<br>Atlanta, GA                | Part-Time Instructor |
| 2002-2004    | Georgia Institute of Technology<br>CATEA<br>Atlanta, GA                             | Project Coordinator  |
| 1999         | University of Montana<br>Rural Institute on Disabilities<br>MonTECH<br>Missoula, MT | Program Specialist   |

## **Non-Academic**

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|--------------|---|--|
| 2008-Present | Integra Rehab<br>Dalton, GA   | Speech Language Pathologist  |
| 2002-Present | Personal Consulting<br>Jonesboro, GA  | Speech Language Pathologist and<br>Assistive Technology Practitioner |
| 2006-Present | Innovative Designs in Environments<br>for an Aging Society (IDEAS), Inc<br>Kirtland, OH | Consultant   |
| 2003-2004    | Shepherd Center<br>Atlanta, GA  | Augmentative and Alternative<br>Communication Specialist             |
| 2001-2002    | Special Communications<br>Tacachale State Facility<br>Gainesville, FL                   | Speech Language Pathologist  |
| 1999-2001    | ATECH Services<br>Laconia, NH   | Assistive Technology Specialist                                      |
| 2000-2001    | Golden View Health Center Corp.<br>Meredith, NH   | Speech Language Pathologist  |
| 1996-1997    | Marion County School Public Schools<br>Ocala, FL  | Speech Language Pathologist  |
| 1993-1995    | Phillips Center for the Performing Arts<br>University of Florida<br>Gainesville, FL     | Technical Staff  |

## **Memberships in Professional and Scientific Societies**

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| 2004-Present | Member<br>National Healthcare Advisory Council for the Multiple Sclerosis Association of America |
| 2004-Present | Member<br>ASHA Division 12, AAC  |
| 2000-Present | Member<br>American Speech-Language-Hearing Association (ASHA)                                    |
| 2006-2007    | Chairperson<br>RESNA Professional Specialty Group for Speech-Language Pathologists               |
| 2004-2006    | Chairperson<br>RESNA Special Interest Group on AAC   |
| 2001-2006    | Member<br>United States Society for Augmentative and Alternative Communication (USSAAC)          |
| 2000-2006    | Member<br>RESNA  |
| 2003-2004    | Member<br>Information Technology Access Interfaces of INCITS                                     |
| 2000-2001    | President<br>New Hampshire AAC Society (NHAACS)  |

## Publications and Presentations

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### Book Chapters and Journal Articles

- Bruce, C. & Bryant, E. (in press). Accessible design practices and informal learning environments. *The State of the Science: Emerging Research and Developments in Universal Design*.
- Sanford, J. and Bruce, C. (in press). Measuring the physical environment. In Mpofu, E. and Oakland, T. (Eds.), *Rehabilitation and Health Assessment: Applying the ICF Guidelines*. New York: Springer Publishing Company.
- Bruce, C. and Sanford, J. (2009). Assessment for workplace accommodations. In Mpofu, E. and Oakland, T. (Eds.), *Assessment in Rehabilitation and Health*. Upper Saddle River, NJ: Pearson Allyn & Bacon.
- Milchus, K. and Bruce, C. (2008). Computer access in the workplace. In Helal, A., Mokhtari, M., and Abdulrazak, B (Eds.), *Smart Technology for Aging, Disability and Independence: Computing and Engineering Design and Applications*. Hoboken, NJ: Wiley and Sons.
- Bruce, C. (2007). Home modifications and aging with multiple sclerosis: An overview for speech-language pathologists. *Perspectives in Gerontology*, 12(1), 12-17.
- Bruce, C. and Sanford, J. (2006). Development of an evidence-based conceptual framework for workplace assessment. *Work*, 27(4), 381-389.
- Sabata, D., Bruce, C. and Sanford, J. (2006). Preparing home health clients for work opportunities with workplace accommodation. *Home Health Care Management and Practice*, 19(1), 12-18.
- Bruce, C. and Sanford, J. (2006). Assessing assessments: Selecting appropriate home assessments for individuals with multiple sclerosis. *International Journal of MS Care*, 8(2), 76.

### Refereed Conference Publications

- Bruce, C. & Walker, B. (2009). Developing effective real-time audio interpretation to enhance accessibility of dynamic zoo and aquaria exhibits. In *Proceedings of the Association for the Advancement of Assistive Technology in Europe Conference (AAATE 2009)*, Florence, Italy.
- Bruce, C. (2008). Critically analyzing workplace discourse to inform AAC device design. In *Proceedings of the 2<sup>nd</sup> Annual Clinical AAC Research Conference*, Charlottesville, VA.
- Bruce, C. (2008). Best practices for exhibits in informal learning environments. In *Proceedings of the International Council for Building (CIB), Working Commission 084 Meeting*, Atlanta, GA.
- Bruce, C. & Bryant, E. (2008). Accessible design practices and informal learning environments. In *Proceedings of the International Conference on Aging, Disability and Independence*, St. Petersburg, FL.
- Bruce, C., Calkins, M., Sanford, J. A., Brush, J., Nguyen, A., Pynoos, J., et al. (2007). Multimedia education on home modifications. In *Proceedings of the 2nd International Conference on Technology and Aging*, Toronto, ON, Canada.
- Bruce, C., & Sanford, J. A. (2007). Making decisions: Home modification assessments. In *Proceedings of the 2nd International Conference on Technology and Aging*, Toronto, ON, Canada.
- Walker, B., Godfrey, M., Orlosky, J., Bruce, C., and Sanford, J. (2006). Aquarium sonification: Soundscapes for accessible dynamic informal learning environments. In *Proceedings of the 12<sup>th</sup> International Conference on Auditory Display*, London, UK, June 20-23.
- Sanford, J. and Bruce, C. (2006). The physical environment as an independent measure: A framework for understanding the role of environmental attributes in activity and performance outcomes. In *Proceedings of the 12th Annual North American Collaborating Center on ICF*, Vancouver, BC, Canada.

### Other Publications

- Bruce, C. (2005). Minimizing the Digital Divide Part 3, *The Motivator*, Spring, 27+.
- Bruce, C. (2005). Minimizing the Digital Divide Part 2, *The Motivator*, Winter, 31-35.
- Bruce, C. (2004). Minimizing the Digital Divide Part 1, *The Motivator*, Fall, 22+.

### Invited Presentations

- Bruce, C. (2008). *Planning for participation*. The Georgia Association of Museums and Galleries Annual Conference, Columbus, GA.
- Brush, J. and Bruce, C. (2007). *Environmental interventions: Improving communication and care in people with dementia*. Paper presented at ASHA Annual Convention, Boston, MA.

- Bruce, C. and Endicott, S. (2007). *Accommodations in the Workplace: The How-To Guide for Employment Practices*. The Collaborative Assistive Technology Conference of the Rockies, Denver, CO.
- Bruce, C. (2006). *Technology, Design, and Environmental Access*. Invited speaker for the Consortium for Multiple Sclerosis Centers Annual Meeting, Scottsdale, AZ.
- Bruce, C. and Bursa, D. (2005). *Workplace Accommodations: Why, When, and How*. Invited speaker for the Centers for Disease Control Disability Employment Awareness Month, Decatur, GA.
- Kaplan, S., Bursa, D., Bruce, C. and Phillips, C. (2005). *Inclusive Technology*. Invited speaker for the U.S. Department of Labor Employment and Training Administration Region 3 Roundtable for Work Incentive and Disability Program Navigator Grantees, Atlanta, GA.
- Bruce, C., Provance, P., Marriott, D. (2005). *Mobility Aids and Assistive Devices*. Invited speaker for the Consortium for Multiple Sclerosis Centers Annual Meeting, Orlando, FL.
- Bruce, C. (2004). *The Assistive Technology World for Children with Special Needs*. Invited speaker for the Putting Lives Together Conference, Albany, GA.
- Bruce, C. and Ramseur, H. (2004). *Assistive technology in One-Stop Centers*, Invited four-hour course for the Georgia Disability Navigators.
- Bruce, C. (2004). *Exploring Assistive Technology and Library Access*. Invited four-hour course for the Bainbridge Subregional Library for the Blind and Physically Handicapped, Bainbridge, GA.
- Bruce, C. (2004). *Simplify Your Life with AT*. Invited speaker for the National Teleconference Series for Multiple Sclerosis Foundation.

#### **Other Presentations and Instructional Courses**

- Bruce, C., Frigal, E., Pearson, P., & Pickering, L. (2009). *Developing a highly specialized corpus of spoken English: AAC discourse in the workplace*. Paper presented at the American Association of Corpus Linguistics, Edmonton, AB, Canada.
- Bruce, C. (2008). *Critically Analyzing Workplace Discourse to Inform AAC Device Design*. Paper presented at the Doctoral Consortium at the 10<sup>th</sup> International ACM SIGACCESS Conference on Computers and Accessibility, Halifax, NS, Canada.
- Bruce, C., Moore-Jackson, M. and Johnson, J. (2008). *AwareComm: Context aware communication for the workplace*. Poster presented at the 13<sup>th</sup> Biennial Conference of the International Society for Augmentative and Alternative Communication, Montreal, QC, Canada.
- Bruce, C. (2008). *User experiences and best practices: Universal design in ILEs*. Paper presented to St. Francis University Research Methods Course, Tampa, FL.
- Bruce, C. and Sanford, J. (2008). *From a distance: Remote workplace accommodation assessments*. Paper presented at the International Conference on Aging, Disability and Independence, St. Petersburg, FL.
- Bruce, C. and Sanford, J. (2007). *Work accommodation assessment for older workers*. Poster presented at the Growing Older with a Disability Conference at the Festival of International Conferences on Caregiving, Disability, Aging and Technology, Toronto, ON, Canada.
- Bruce, C., Brush, J., Calkins, M. and Sanford, J. (2007). *Practice-based evidence and evidence-based practice: Measuring environmental barriers and facilitators to communication*. Poster presented at the 8<sup>th</sup> Annual Conference of ASHA's Division on AAC, Atlanta, GA.
- Bruce, C. and Moscoso, G. (2006). *AAC in the workplace*. Paper presented at the Georgia Workforce and Touch the Future Conference, Athens, GA.
- Bruce, C. (2006). *Remote AT assessments to facilitate workplace accommodations*. Paper presented at the Georgia Workforce and Touch the Future Conference, Athens, GA.
- Bruce, C. and Moscoso, G. (2006). *Telecommunication: What about individuals who have trouble communicating?* Paper presented at the Georgia Workforce and Touch the Future Conference, Athens, GA.
- Bruce, C. and Sanford, J. (2006). *Assessing assessments: Selecting an appropriate assessment instrument for individuals with MS*. Poster presented at the Consortium for Multiple Sclerosis Centers Annual Meeting, Scottsdale, AZ.
- Bruce, C. and Sabata, D. (2006). *Places for work: An introduction to workplace accommodations*. Two-day Short Course section at the American Occupational Therapy Association Annual Conference, Charlotte, NC.
- Bruce, C. and Sanford, J. (2006). *Evidence-based assessment for workplace accommodations*. Paper presented at the American Occupational Therapy Association Annual Conference, Charlotte, NC.

- Bruce, C. and Sanford, J. (2006). *Workplace accommodations: A remote possibility*. Paper presented at the 21st Annual Technology & Persons with Disabilities Conference, Los Angeles, CA.
- Bruce, C. and Sanford, J. (2006). *Foundations of assessment*. Paper presented at the National Council of Rehabilitation Educators Conference, San Diego, CA.
- Bruce, C. and Sanford, J. (2006). *Assessing the assessments*. Paper presented at the International Conference on Aging, Disability, and Independence, St. Petersburg, FL.
- Bruce, C., Bryant, E., and Sanford, J. (2006). *Model exhibits for informal learning environments*. Paper presented at the Fourth Annual Hawaii International Conference on Arts and Humanities.
- Bruce, C., Bryant, E., and Sanford, J. (2006). *Universal access to the arts*. Paper presented at the Fourth Annual Hawaii International Conference on Arts and Humanities.
- Bruce, C. and Sanford, J. (2005). *Development of a remote workplace assessment*. Paper presented at the Workplace Accommodations RERC State of the Science Conference, Atlanta, GA.
- Bruce, C. (2004). *Can you hear me now?* Presentation at the Power Up for the Future Biennial Conference, Augusta, GA.
- Bruce, C. (2004). *AAC at work*. Presentation at the Power Up for the Future Biennial Conference, Augusta, GA.
- Herrelko, K. and Bruce, C. (2004). *AACK! Assessment for augmentative communication in adults*. Presentation at the Georgia Speech and Hearing Association Annual Conference, Atlanta, GA.
- Bruce, C. and Herrelko, K. (2004). *Can you hear me now? Phone access for individuals with speech impairments*. Presentation at the Georgia Speech and Hearing Association Annual Conference, Atlanta, GA.
- Bruce, C. (2004). *Integrating AAC funding information into an online searchable AT database*. Paper presented at the 19<sup>th</sup> Annual Technology and Persons with Disabilities Conference, Los Angeles, CA.
- Bruce, C. (2004). *Low tech tactics: Augmentative communication options*. Presentation at the Perspectives in Acquired Brain Injury Conference at Shepherd Hospital, Atlanta, GA.
- Bruce, C. (2003). *Implementing informed choice in the assessment process*. Paper presented at the United States Society for Alternative and Augmentative Communication Conference, Los Angeles, CA.
- Langton, A. and Bruce, C. (2002). *Is it the right thing and does it work? Getting consumer input*. Presentation at the National Rehabilitation Association Annual Training Conference, Indianapolis, IN.
- Bruce, C. and Hart-Paulson, L. (1999) *The AACs of literacy*. Presentation at the Montana Council for Exceptional Children Conference on disABILITIES, Missoula, MT.

## Teaching and Curriculum Development

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2007-Present

Home Modification for People with Upper and Lower Extremity Impairment

IDEAS, Inc.

Rank: Co-Author, Co-Instructor

2005-2008

National Resource Center on Supportive Housing and Home Modification

Executive Certificate Program in Home Modification

Rank: Part-Time Instructor

2006

Georgia State University

COMM 6910

Rank: Part-Time Instructor

2003

Fort Valley State University

Applied Rehabilitation Technology

Rank: Co-Instructor

## Research

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### Current Grants and Contracts

2009

Assessment Protocol to Identify Environmental Barriers to Communication

Phase II SBIR

National Institute on Deafness and Communication Disorders, NIH

Role: Co-Investigator

2007-Present

Rehabilitation Engineering Research Center (RERC) on Workplace Accommodation

RERC

National Institute on Disability and Rehabilitation Research, Department of Education

Role: Co-Investigator

### Completed Grants and Contracts

2009

A Critical Analysis of Workplace Discourse to Inform AAC Devices on the

Language and Literacy Needs of Workers with Communication Impairments

Georgia State University, Department of Applied Linguistics & ESL Seed Grant

Role: Co-Principal Investigator

2007-2009

Workplace Accommodation Wizard: An Assessment Tool for Employers

Field-Initiated Proposal

National Institute on Disability and Rehabilitation Research, Department of Education

Role: Co-Project Investigator

2008

Assessment Protocol to Identify Environmental Barriers to Communication

Phase I SBIR

National Institute on Deafness and Communication Disorders, NIH

Role: Co-Investigator

2002-2007

Rehabilitation Engineering Research Center (RERC) on Workplace Accommodation

RERC

National Institute on Disability and Rehabilitation Research, Department of Education

Roles: Project Manager; Co-Investigator

2006

Informal Learning Environment Accessibility—A Case Study of the Georgia Aquarium

Contract

Southeast Disability Business Technical Assistance Center

Role: Co-Principal Investigator

2005-2006

Resource Materials for Home Modifications

Contract

IDEAS, Inc.

Role: Principal Investigator

2002-2006

Assistivetech.net

National Institute on Disability and Rehabilitation Research, Department of Education; Rehabilitation Services Administration, OSERS, Department of Education

Role: Technical Staff

2002-2004

Tech Knowledge

State of Georgia

Role: Technical Staff

2003

AAC Clinical Services

Contract

Shepherd Center

Role: Project Director

2002-2003

Tech Connections

RRTC

National Institute on Disability and Rehabilitation Research, Department of Education

Role: Technical Staff

1999

MonTech AAC

Tech Act Project

National Institute on Disability and Rehabilitation Research, Department of Education

Role: Program Specialist

## Service

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### Advisory Boards

2003-2007

Member

Georgia Telecommunications Equipment Distribution Program Advisory Committee

2002-2007

Member

Assistive Technology Committee of the Georgia Advocacy Office

### Reviewing, Editing, and Judging Activities

2008-2009

Judge

National Engineering Design Challenge Finals on Workplace Accommodations for the Junior Engineering Technical Society

2008

Reviewer

Seed grant proposals for the Health Systems Institute at Georgia Tech

2006-2008

Topic Coordinator and Reviewer

Conference submissions for Computer Access and Communication at RESNA

2004-2008

Reviewer

Articles for *Motivator* magazine for MSAA

2004-2008

Reviewer

Articles for *MSFocus* magazine and other dissemination materials for MSF

2006

Reviewer

Submissions for the *Assistive Technology Journal* for RESNA

2006

Reviewer

Conference submissions for Division 12 for ASHA