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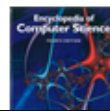
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**JACM** [Journal of the ACM \(JACM\)](#)

The [Journal of the ACM \(JACM\)](#) provides coverage of the most significant work on principles of computer science, broadly construed. The scope of research covered encompasses contributions of lasting value to any area of computer science. To be accepted, a paper must be judged to be truly outstanding in its field. JACM is interested in work in core computer science and in work at the boundaries, both the boundaries of subdisciplines of computer science and the boundaries between computer science and other fields.

1

**JDIQ** [Journal of Data and Information Quality \(JDIQ\)](#)

[JDIQ's](#) mission is to publish high quality articles that make a significant and novel contribution to the field of data and information quality. JDIQ welcomes research contributions on the following areas, but not limited to: Information Quality in the Enterprise Context; Database related technical solutions for Information Quality; Information Quality in the context of Computer Science and Information Technology; Information Curation.

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**SIGAda** [Special Interest Group on Ada Programming Language](#)

The ACM Special Interest Group on Ada Programming Language provides a forum on all aspects of the Ada language and technologies, including usage, education, standardization, design methods, and compiler implementation. SIGAda's annual conference addresses Ada's role in building industrial-strength applications that support mission-critical, safety-critical, real-time, distributed, high-assurance, and high-integrity requirements. Supporting technologies that SIGAda focuses on include software engineering, software development processes, object technology, computer science education, tools, Common Object Request Broker Architecture (CORBA), and Java.

**SIGAI** [Special Interest Group on Artificial Intelligence](#)

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**Ada** [SIGAda Annual International Conference](#)

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ANCS is a systems-oriented research conference, presenting original work that explores the relationship between the architecture of modern computer networks and the architecture of the individual hardware and software elements from which these networks are built. This year's conference will particularly emphasize insight into broader systems issues in its paper selection, to recognize and foster the growth of research that lies at the intersection of computer and network systems architecture.

**APGV****APGV** [Applied Perception in Graphics & Visualization](#)

Research in computer graphics and visualization has great potential to benefit from, and contribute to, research in perception.

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Adaptive computer assisted instruction (CAI) for students with dyscalculia (learning disability in mathematics)

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**Keywords:** adaptive e-learning, dyscalculia, e-learning, educational software, learning disability (LD), multi dimensional learning algorithm

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## Making the computer accessible to mentally retarded adults

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Authors: [Gretchen L. Robertson](#) GR Consulting Services, Arlington, Virginia  
[Deborah Hix](#) [Virginia Tech Department of Computer Science,](#)  
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Little research has been conducted on how to teach computer skills to developmentally disabled adults. A head counselor at a home for mentally retarded adults, who served as the inspiration for this article, was an enthusiastic personal computer user who tried to share computer instruction with home residents. Efforts at using commercial applications designed for young children were unsuccessful. Residents briefly watched the counselor use the applications, then lost interest. Staff members had neither the time nor the user interface background to investigate which applications and user interaction design factors might make computers accessible to home residents. In this article, we describe our empirical investigation of computer use among moderately developmentally disabled individuals.

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## Making the computer accessible to mentally retarded adults

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## Making the Computer Accessible to Mentally Retarded Adults

GRETCHEN L. ROBERTSON AND DEBORAH HIX

Little research has been conducted on how to teach computer skills to developmentally disabled adults. A head counselor at a home for mentally retarded adults, who served as the inspiration for this article, was an enthusiastic personal computer user who tried to share computer instruction with home residents. Efforts at using commercial applications designed for young children were unsuccessful. Residents briefly watched the counselor use the applications, then lost interest. Staff members had neither the time nor the user interface background to investigate which applications and user interaction design factors might make computers accessible to home residents. In this article, we describe our empirical investigation of computer use among moderately developmentally disabled individuals. We investigated the input devices preferred, and the user interaction design issues to be considered when designing or selecting applications for this population.

Most research on computer use by the mentally retarded falls into two general categories: Computer science literature discusses advanced assistive technologies, such as eye-blink technologies and speech synthesizers, but does not address usability of commonly available devices for mentally retarded persons without severe physical limitations. Education and psychology literature describes use of computer technology in special education settings, focusing on teaching techniques rather than usability.



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