

Foreword

The goal of the editors in designing this book was based on the strong belief that learning environments in which students with disabilities learn and thrive have been significantly enhanced by the collective efforts of policy makers, researchers, and practitioners in the field of Assistive Technology (AT). Supportive policies are in place, and educators have a sense of direction as to what needs to be done to continue strengthening the impact of AT in schools. Parents understand the benefits of technology for their children who struggle with learning. They are informed advocates for their children and are much more sophisticated in their perspectives on the potential of technology to not only improve learning environments but also to make a qualitative difference in the lives of their children as they mature into independent contributors to society.

These changes in e-learning environments are also driven by advancements in technology. However, these improvements are not solely the result of the commercial sector. The emergence of evidence-based practices and increased educational leadership at all levels in education serve to inform the growing industry that undergirds AT. Teachers are better prepared to sense the technology needs of students. Building administrators are demonstrating that as instructional leaders they must also be the source of leadership in moving the application of technology forward as a resource essential to learning and teaching for all learners. Community leaders serving on local boards of education bring to their role personal experience in technology that is not only recent but also often central to their professional and personal lives. State and federal agencies have played a pivotal role in changing the landscape of e-learning environments for all learners. In many ways the policies of these agencies are ahead of their times and/or too ambitious for today's economy.

Clearly, great strides have been made in recent years in positioning schools to meet the needs of student's disabilities. Take for example the possibilities of AT in enriching the lives of these individuals. First defined in the U.S. through the Individuals with Disabilities Education Act of 1990 (Public Law 101-476) and later modified in the Individuals with Disabilities Education Improvement Act (Public Law 108-446) to address the exclusion of surgically implanted medical devices, AT is defined in terms of both devices and services. This is important in that AT should not only be viewed in the context of devices that promote greater independence by enabling individuals with disabilities to achieve their learning potential but also to perform everyday tasks that they otherwise would not be able to accomplish. Assistive technology should also be viewed in the context of services that directly assist individuals with disabilities in sustaining and furthering their utilization of technology as a major contributor to their quality of life.

Providing an optimistic context in introducing the work of contributing authors to this book is not intended to imply that the challenges have been met in maximizing the potential of AT for the benefit of all learners. That is certainly not the case. However, lessons have been learned over the past decade and the learning environments experienced in the schools have changed. The circumstances are such that the publication of this book is very timely. In a field changing so dramatically as AT, no one author has the breadth of experience and perspective to address the lessons learned, the evolvement of the growing knowledge base, evidence-based practices, and policy needs. Considerable effort was invested in recruiting authors to the team whose expertise was complimentary of other authors on the team and whose collective knowledge and experience address the focus of the book at this time in the evolution of AT. Although AT is positioned as an integral part of the knowledge base and holds a significant place in the professional literature on instructional technology and special education, much more work remains to be done in theory development, research, and practice.

While the challenges of the future may appear to be daunting, it is important to point out that there is no better time than currently to be involved in moving forward to strengthen e-learning environments and increase preparation for independent living through technology. The knowledge base is substantial, advancements in technology remain to be employed through technological advancements, and industry is well positioned to expand research and development to yield AT devices and services not currently available. Technologies, such as mobile devices and social media, as well as features, such as text-to-speech, have created opportunities and afforded access to content that not long ago would have been beyond the reach of people with disabilities without specialized and sometimes cost prohibitive assistive devices. That is no longer the case. There is every reason to believe that the horizon for AT is bright.

Assistive Technology Research, Practice, and Theory, by Boaventura DaCosta and Soonhwa Seok, is an important contribution for those who are interested in the present and future of AT. More importantly, it represents a significant resource for those who are interested in what is possible in supporting individuals with disabilities in K-12 and higher education as well in the communities where their contributions to society will occur. Unlike other books focused almost exclusively on cutting-edge technology or limited to specific applications in the classroom, this book offers a broader perspective through the transdisciplinary perspectives of the authors currently involved in different facets of AT and who collectively build on their expertise to share visions for the future. This is a highly integrated book that provides theoretical frameworks, empirical research findings, and evidence-based practices that will guide the future. This book addresses trends and issues related to AT in the context of what is available to drive research, practices, policies, and emerging technologies for the future.

As you read through these chapters, I encourage you to reflect upon the insights they offer as well as consider the recommendations provided by the authors. With this said, at the core of special education is individualized instruction. Thus, I also encourage you to challenge the ideas presented in this book and determine what works in your specific situation. Most importantly, share your experiences with others. It is only through steady questioning and exploration that we can truly help those with special needs and promote the field of AT.

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Edward Meyen is a professor in special education. During his career at the University of Kansas, he has served in a number of leadership roles in administration while continuing his teaching. In 2001, he and a small group of colleagues from across the campus founded the eLearning Design Lab, which is basically a partnership between a telecommunication center and the Center for Research on Learning. The lab is focused on research and development in e-learning at the post-secondary and K-12 levels with a particular emphasis on students with disabilities. It is self-supporting through grants and contracts and employs a large number of students. Since 2001, 24 PhD and numerous Master and undergraduate degrees have been earned by students while working in the lab. He is actively involved in a wide variety of research and development projects that are focused on online instruction.