Foreword

As an educator, an academic, a researcher, a TV & film producer, an educational technologist, a consultant and parent, I have witnessed the immense benefits of assistive technology from a variety of vantage points. The two dramatic examples below further attest to the incredible potential of assistive technology to improve the daily life functioning of individuals with disabilities:

**Video Technology via iPad**

*When Addy came to the Jenny Clarkson School, she was an awkward girl who had a lot of trouble with personal interactions. Addy worked with her clinician intensely to improve her social-emotional skills, including her body language, appropriate voice, her distance away from a person during a conversation, appropriate hugging, shaking hands, making eye contact and making good decisions. These behaviors were all extremely challenging for her and interfered with her making friends, relating to adults and making informed decisions, which would have impacted her transition to college. With the help of her clinician and using the iPad, Addy created a series of public service videos, on how to meet and greet someone, start a conversation, end a conversation and make a friend. She actually asked to have another girl participate in the video with her, who became her friend as a result. Addy also created a video on how to make wise decisions, gather information, evaluate the pros and cons and then act upon this information. This helped her apply to college, choose a course of study and remain in a class she did not really like. She is now able to function well within the college setting. Addy reflects upon the videos she made to reinforce the skills she has learned, and refers to them on an on-going basis. After all, they were life-changing for this young woman, as none of this would have been possible before the advent of this technology.*

**Interactive E-Text**

*As a researcher for the University of Oregon at the Center for Advanced Technology in Education I created an interactive e-text version of a specific science text to help secondary students with learning disabilities better access the information they needed to pass the New York State Regents Exam. Following the principles of Universal Design for Learning, we created context-specific definitions, phrases and the use of the Paraphrasing Strategy from University of Kansas Center for Learning. The results were so positive that students, who were previously failing, were able to understand the text, test for their own meaning, self-pace, learn paraphrasing skills and actually got excited about learning these difficult concepts. At the end of the study, the students asked me to please make all of their textbooks and content*
areas in this format to help them better learn and be more successful in school. Unfortunately my time with them ended, but they did have the program in this subject on their computers. I only wish I could have stayed and done more with them.

The remarkable examples above further attest to the incredible potential of technology to accommodate the interests and functioning of individuals with developmental disabilities.

In the past, I have worked with computer programming companies to plan computer simulation environments to instruct teachers on how to manage students in classrooms, and I am currently working with clinicians to develop technology tools and clinical approaches to assist children with autism transition into successful adults. When Dr. Nava Silton asked me to write the Foreword, I was excited to read about the latest findings using assistive technology to help individuals with a variety of disabilities. My areas of interest range from language and literacy, transitional skills, social emotional, behavioral, and cognitive issues to music. This edition is of great interest to me and to the people with whom I currently work.

As I read the authors in this volume, I respond to their findings under the following specific topics: language and literacy, communication, social emotional, behavioral and life skills, executive function, language and speech, health challenges, best practices and educational outreach. Several examples under these topics include language and literacy which is addressed in the chapter by Ben-Avie et al. (Chapter 10) examining how to improve students’ academic learning by helping students access text. Rodriguez, Strnadova & Cumming (Chapter 2) examine best practices using the Universal Design for Learning principles to help all students with disabilities access the curriculum when using mobile devices.

Van Der Meer (Chapter 1) explores how children with developmental disabilities can learn how to use iPods and iPads in addition to other AAC devices for functional communication, showing positive outcomes. Ancelle (Chapter 12) explores the use of VocalIDTM, Free SpeechTM, and SmartPalateTM, assistive technologies for children with communication disorders. Doneski –Nicol & Bartz (Chapter 4) research early literacy and AAC for children with complex communication needs. Social, emotional, behavioral and life skills are addressed by Gillespie et al. (Chapter 7) in using interactive technology for social-emotional development in children with autism. Mass communication, information dissemination, sensitivity and educational outreach are explored in the chapter by Arucevic (Chapter 15) by looking at the television show and comic book series, REALABILITIES.

Discussions about how to best help children with a variety of disabilities and provide individualized services exist in many different formats over a long period of time. With the fast-paced invention and use of technology and its enhanced applications, keeping up can be a daunting task for even the savviest professional. While I have read many books on the use of assistive technology for children with disabilities, there is a great need for a book like this to inform not just academics, but parents, educators, special educators, therapists and anyone involved in the field of disabilities. These varied chapters highlight the newest, cutting edge technology available in terms that everyone can understand. Silton consolidates these new ideas and interventions into one seminal publication, rather than relying on isolated journals that may be inaccessible to the public to convey this important information. These selected chapters highlight methodologies that are peer reviewed, research-based and are applicable to real life settings. This book also addresses different categories of disabilities in terms of assistive technology, including cognitive, social-emotional and physical disabilities proposing avant-garde, multi-purpose interventions that may be used across populations, and importantly, across platforms.
Various media and emerging technologies including avatars, e-text, video modeling, iPads, iPods and smart technology, communication devices, robots, Telehealth technology and television programming are examined in terms of usefulness and real-world application. These specific interventions are used in a variety of settings: school, home, the clinic- where these individuals can benefit from assistive technology. I also found it extremely useful that the needs of different age groups-early childhood onward through transition to adulthood are included rather than narrowing it to one population.

Dr. Silton and her authors have illustrated very relevant key issues facing individuals, particularly children and youth with disabilities, and the ongoing progressive use of assistive technology. Evaluation of the efficacy of these emerging technologies contributes to the field and informs decisions made by families, practitioners, clinicians and the end-users of these aids and interventions. It is equally important to disseminate information and encourage the acceptance of persons with disabilities, as well. While the conversation continues about the usefulness, appropriateness and purpose of these technologies, this scholarly but eminently readable book illustrates some of the most recent findings and best practices available at this time and advances the field in contemporary assistive technology for individuals with developmental disabilities.

Carol Kahan Kennedy
Fordham University, USA

Carol Kahan Kennedy, Ph.D., Doctor of Philosophy from New York University, The Steinhardt School of Education Program in Educational Communication and Technology; Specialty in Special Education. She is a professional development coach for Fordham University Graduate School of Education doing staff development in NYC schools. Dr. Kennedy is a published, author, presenter, technology consultant, and a member of the UN NGO Committee for Education. Previously she was Assistant Professor, Director of Educational Technology, Program Director Special Education, LIU Hudson Rockland Graduate Campus. She is the Educational Technology Consultant at Jenny Clarkson/REACH school in Valhalla New York, working with clinicians, faculty and residential staff to integrate technology into the residential and academic life of adolescents with Autism Spectrum Disorder. Dr. Kennedy helps clinicians work with clients to create social story videos as part of clinical practice to improve life skills. She is affiliated with the American Association for the Advancement of Science and the University of Oregon at the Center for Advanced Technology in Education.