Book review: Education and technology support for children and young adults with ASD and learning disabilities

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| Article Info	Abstract
Keywords: Assistive technologies Technology integration Special education Learning disabilities Aautism spectrum disorder. Book Review	*"Education and Technology Support for Children and Young Adults with ASD and Learning Disabilities"* is edited by Yefim Kats (Trident University International, USA) and Fabrizio Stasolla (University Giustino Fortunato of Benevento, Italy). The book was published in 2021 by IGI Global. The book has 391 pages. The ISBNs of the book for different versions are; ISBN13: 9781799870531; ISBN10: 1799870537; EISBN13: 9781799870555, and ISBN13 Softcover: 9781799870548. DOI number of the book is 10.4018/978-1-7998-7053-1. The edited book focuses on learning disabilities from the perspectives of Autism Spectrum Disorder (ASD) and provides suggestions for assistive technologies and tools throughout 16 chapters.

1. Introduction
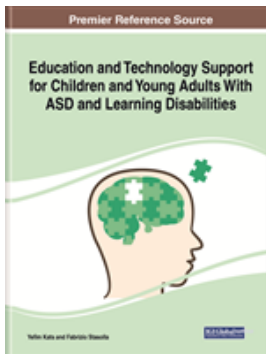
"Education and Technology Support for Children and Young Adults with ASD and Learning Disabilities" is edited by Yefim Kats (Trident University International, USA) and Fabrizio Stasolla (University Giustino Fortunato of Benevento, Italy). The book was published in 2021 by IGI Global. The book has 391 pages. The ISBNs of the book for different versions are; ISBN13: 9781799870531; ISBN10: 1799870537; EISBN13: 9781799870555, and ISBN13 Softcover: 9781799870548. DOI number of the book is 10.4018/978-1-7998-7053-1. The edited book (Kats & Stasolla, 2021) focuses on learning disabilities from the perspectives of Autism Spectrum Disorder (ASD) and provides suggestions for assistive technologies and tools throughout 16 chapters.

2. Review of the Chapters

There are a total of 16 chapters that explore ASD and assistive technologies. The first chapter, "Integrated Support of Students with Autism Spectrum Disorders and Learning Disabilities", written by Yefim Kats (2021). Chapter 1 provides an integrated approach to support individuals with ASD by linking psychological and neurological aspects of learning disabilities. The second chapter, "Bridging the Gap: Supporting Students with Autism in Higher Education", written by Bryan M. Peightal, Scott Browning, and Loren Pease (2021). This chapter targets learners with ASD at higher education level and provides suggestions to create an autism-friendly educational climate. The third chapter, "Online Gaming Environments as a Potential Conduit to Support Friendships for Individuals with Autism Spectrum Disorder", written by Jenn Gallup and Celal Perihan (2021). Chapter 3 examines emerging online

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environments such as multiplayer online role-playing games (MORPGs) and immersive technologies such as virtual reality and explores how these environments can be used to build social connections for individuals with ASD. The fourth chapter, "Psychoeducational Strategies in School Context to Support Students with Specific Learning Disorders in a Sample of Children Aged 6 to 16", written by Giulia Binaghi and Marco Guida (2021). This chapter provides a meta-perspective and presents a literature review on the evidence-based practices for students with learning disabilities. The fifth chapter, "The Role of Teaching Materials in Cognitive Development Focusing on the Emergence of Symbolic Functioning and Behaviour Issues", written by Eiko Tatematsu (2021). This chapter specifically covers "Emergence of Symbolic Functioning" and latent behaviour issues and discusses factors preventing social adaptation. The sixth chapter, "Longitudinal Study of Motor Coordination Development in Children with Autism Spectrum Disorder", is written by Kiyoji Koreeda (2021). Chapter 6 investigates the development of the motor function in children with ASD through a longitudinal approach. The seventh chapter, "School Activities for Autistic Children Using Newly Developed Software and Tools", written by Shigeru Ikuta, Chisato Ouchi, Jinko Tomiyama, Yayoe Katagiri, Shoko Hoshi, Naoki Sakai, Chiaki Kisaka, Nobuo Hara, Hiromi Nakamura, and Keiko Ozaki (2021). The chapter provides activities for ASD with intellectual and expressive language disabilities through mobile devices and explores how these approaches would be helpful for the improvement of expressive language disabilities. The eight chapter, "Creating Inclusive Functional Content Using Dot-Codes: An Exploration of Multistep Recipes for Individuals with Autism in Post-Secondary Settings", written by Jenn Gallup, Celal Perihan, Yoshie Tatsuma, and Shigeru Ikuta (2021). Chapter 8 provides a walkthrough and step by step guide for creating handmade content to support functional skills. The ninth chapter, "Assistive Technology-Based Programs and Cognitive-Behavioral Interventions for Helping Adaptive Responding of Children and Adolescents with Rett Syndrome: A Selective Overview", written by Fabrizio Stasolla, Alessandro O. Caffò, and Viviana Perilli (2021). The chapter focuses on Rett syndrome and explores categories of communication skills, adaptive skills, challenging behaviour, and on-task behaviour through empirical pieces of evidence. The tenth chapter, "Cogni-Prelit: Empowering Executive Functions Embedded with Preliteracy Learning in Preschool Children at Risk for Reading Difficulties", written by Eleni Rachanioti, Anastasia Alevriadou, Tharrenos Bratitsis, and Eleni Laskaraki (2021). Chapter 10 covers reading difficulties and examines Cogni-Prelit app in this regard. The eleventh chapter, "Treating Stuttering in Children with Autism Spectrum Disorder", is written by Shoko Miyamoto and Masayoshi Tsuge (2021). Based on the notion that the number of ASD with shutter is increasing, the chapter examines strategies to lessen to reduce stuttering and improve fluency. The twelfth chapter, "Fostering Inclusion of Children and Adolescents with Autism Spectrum Disorders in Daily Settings Through Technological Supports: A Selective Overview", is written by Fabrizio Stasolla, Alessandro O. Caffò, and Viviana Perilli (2021). Benefiting from s systematic review approach, chapter 12 examines the use of assistive technology for the inclusion of children with ASD through 5 themes, namely, communication skills, (adaptive and/or social skills, life skills, challenging behaviours, and academic performance. The thirteenth chapter, "Remediation and Assistive Technologies for Communication Deficits in Autistic Spectrum Disorders", is written by Katharine P. Beals (2021). In this chapter, assistive technologies to remedy verbal communication deficits is examined through pedagogical strategies and effective approaches to select working solutions to select these technologies are presented. The fourteenth chapter, "Humanoid Robot-Mediated Communication Teaching for Children With ASD: A Case Study", is written by Toyokazu Mizuuchi, Tomohito Yamazaki, and Masayoshi Tsuge (2021). As a result of the pervasive use of educational technology, there are innovative approaches and robot mediated communication can be counted as one of these technologies. In this chapter, the authors examine the best practices of humanoid robots and their use in improving communication skills. The fifteenth chapter, "Let's Play!: The Use of Educational Games as an Intervention Tool for Autism Spectrum Disorder", is written by Corrie L. Jackson, and G. Tanner Jackson (2021). Chapter 15 spots on serious games and provides a wide range of applications of serious games to improve different skills. The sixteenth chapter, "Statistical Perspectives and Machine Learning Algorithms: Research Analysis of Technological Support for Autism

Diagnosis", is written by N. Ajaypradeep, R. Sasikala (2021). Artificial Intelligence (AI) is widely used in many areas of our daily lives and this chapter, innovatively, suggests how AI-powered machine learning technologies can be used for the diagnosis of ASD.

3. Conclusion

Autism Spectrum Disorder (ASD) is seen approximately 1 in 54 children without discriminating any race, ethnicity, or any other groups in social structures. ASD is a complex disorder with many unknowns and every working solution is significant. In this regard, this book serves as a useful resource which provides explanations with a special interest in assistive/educational technologies. Educational technology is fueled by recent developments and beyond mechanical technologies, emerging digital technologies promise a lot. From this perspective, it is important to keep the field of special education and this book plays an important role. However, some suggestions can be considered. Taking account that the parents are an important part of special education, such publications can be disseminated in a way that is free from technical and academic jargon. Besides, different from many other scientific fields, suggestions derive from evidence-based research is vital for families, educators, and practitioners. Taking this pint into account, it should be highlighted that we have to frequently report findings and suggestions of the empirical research to help individuals with ASD.

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