Assistive Technology For Visually Impaired And Blind People | 24eb647e841bb6578e91a32e2efa40

Access Technology for Blind and Low Vision Accessibility

Special Education Design and Development Tools for School Rehabilitation Professionals

Teaching Learners with Visual Impairment

Handbook

Visually Impaired

Assistive Technology for Blind and Low Vision Accessibility

Master the assistive strategies you need to make confident clinical decisions and help improve the quality of life for people with disabilities with the latest edition of this comprehensive text. Based on the Human Activity Assistive Technology (HAAT) model developed by the authors, the book provides detailed coverage of the broad range of devices, services, and practices that comprise assistive technology and focuses on the relationship between the human user and the assisted activity within specific contexts. This title includes additional digital media when purchased in print format. For this digital book edition, media content may not be included.

Special Education Design and Development Tools for School Rehabilitation Professionals

Human-computer interaction studies the users and their interaction with an interactive software system (ISS). However, these studies are designed for people without any type of disability, causing there to be few existing techniques or tools that focus on the characteristics of a specific user, thus causing accessibility and utility issues for neglected segments of the population. This reference source intends to remedy this lack of research by supporting an ISS focused on people with visual impairment. User-Centered Software Development for the Blind and Visually Impaired: Emerging Research and Opportunities is a collection of innovative research on techniques, applications, and methods for carrying out software projects in which the main users are people with visual impairments. While highlighting topics including mobile technology, assistive technologies, and human-computer interaction, this book is ideally designed for software developers, computer engineers, designers, academics, researchers, professionals, and educators interested in current research on usable and accessible technologies.

Teaching Learners with Visual Impairment

The familiar image of the disabled tends to emphasize their limitations and reduced quality of life. However, many people with cognitive, motor, and other difficulties also have the capacity to enhance their social interactions, leisure pursuits and daily activities with the aid of assistive technology. Assistive devices from the simple to the sophisticated, have become essential to enable people who are visually impaired in every area, from vision to speech and language to technology. Itinerant Teaching: Tricks of the Trade for Teachers of Students with Visual Impairment highlights the most important things to consider when teaching learners with visual impairments. The book is designed to help teachers address the challenges of teaching visually impaired students, and includes a wealth of practical tips and advice. It provides a comprehensive overview of assistive technology and discusses the different types of devices available. The book also covers a wide range of issues, including accessibility and affordability, and provides guidance on how to ensure that learners with visual impairments are able to participate fully in the learning process.
Impairments, second edition. Jean E. Olmstead This classic guide to managing the fast-moving job of an itinerant teacher of visually impaired students is completely revised and updated, with new sections on young children, children with multiple disabilities, orientation and mobility, assistive technology, and stress management.

Cook and Hussey's Assistive Technologies- E-Book

WIPO Technology Trends 2019 - Artificial Intelligence

This book features selected research papers presented at the International Conference on Advances in Information Communication Technology and Computing (AICTC 2019), held at the Government Engineering College Bikaner, Bikaner, India, on 8-9 November 2019. It covers ICT-based approaches in the areas ICT for energy efficiency, life cycle assessment of ICT, green IT, green information systems, environmental informatics, energy informatics, sustainable HCI and computational sustainability.

The Visually Handicapped Child in School

"Access Technology for Blind and Low Vision Accessibility, the second edition of 2008's Assistive Technology for Students Who Are Blind or Visually Impaired: A Guide to Assessment, uses clear language to describe the range of technology solutions that exists to facilitate low vision and nonvisual access to print and digital information. Part 1 gives teachers, professionals, and families an overview of current technologies including refreshable braille displays, screen readers, 3D printers, cloud computing, tactile media, and integrated development environments. Part 2 builds on this foundation, providing readers with a conceptual and practical framework to guide a comprehensive technology evaluation process. As did its predecessor, Access Technology for Blind and Low Vision Accessibility is focused on giving people who are blind or visually impaired equal access to all activities of self-determined living, allowing them to be seamlessly integrated within their home, school, and work communities"--

The Illustrated Guide to Assistive Technology & Devices

Designing Inclusive Interactions contains the proceedings of the fifth Cambridge Workshop on Universal Access and Assistive Technology (CWUAAT), incorporating the 8th Cambridge Workshop on Rehabilitation Robotics, held in Cambridge, England, in March 2010. It contains contributions from an international group of leading researchers in the fields of Universal Access and Assistive Technology. This conference will mainly focus on the following principal topics: 1. Designing assistive and rehabilitation technology for working and daily living environments 2. Measuring inclusion for the design of products for work and daily living 3. Inclusive interaction design and new technologies for inclusive design 4. Assembling new user data for inclusive design 5. The design of accessible and inclusive contexts: work and daily living environments 6. Business advantages and applications of inclusive design 7. Legislation, standards and government awareness of inclusive design

Interactive Multimedia

Multimedia is the common name for media that combine more than one type of individual medium to create a single unit. Interactive media are the means of communication in which the outputs depend on the inputs made by the user. This book contains 11 chapters that are divided into two sections: Interactive Multimedia and Education and Interactive Multimedia and Medicine. The authors of the chapters deal with different topics within these disciplines, such as the importance of cloud storage, development of play tools for children, use of gaming on multimedia devices designed for the elderly, development of a reading, writing, and spelling program based on Luria's theories, as well as development of mobile applications called BloodHero dedicated to the increase in blood donors, etc.

Assistive Technology for Visually Impaired and Blind People

This book, Teaching Learners with Visual Impairment, focuses on holistic support to learners with visual impairment in and beyond the classroom and school context. Special attention is given to classroom practice, learning support, curriculum differentiation and assessment practices, to mention but a few areas of focus covered in the book. In this manner, this book makes a significant contribution to the existing body of knowledge on the implementation of inclusive education policy with learners affected by visual impairment.

2019 Advances in Science and Engineering Technology International Conferences (ASET)

The future of disability in America will depend on how well the U.S. prepares for and manages the demographic, fiscal, and technological developments that will unfold during the next two to three decades. Building upon two prior studies from the Institute of Medicine (the 1991 Institute of Medicine's report Disability in America and the 1997 report Enabling America), The Future of Disability in America examines both progress and concerns about continuing barriers that limit the independence, productivity, and participation in community life of people with disabilities. This book offers a comprehensive look at a wide range of issues, including the prevalence of disability across the lifespan; disability trends the role of assistive technology; barriers posed by health care and other
facilities with inaccessible buildings, equipment, and information formats; the needs of young people moving from pediatric to adult health care and of adults experiencing premature aging and secondary health problems; selected issues in health care financing (e.g., risk adjusting payments to health plans, coverage of assistive technology); and the organizing and financing of disability-related research. The Future of Disability in America is an assessment of both principles and scientific evidence for disability policies and services. This book’s recommendations propose steps to eliminate barriers and strengthen the evidence base for future public and private actions to reduce the impact of disability on individuals, families, and society.

Computers Helping People with Special Needs

This book discusses the design of the new mobility assistive information and communication technologies (ICT) devices for the visually impaired. The book begins with a definition of the space concept, followed by the concept of interaction with a space during mobility and this interaction characteristics. The contributors will then examine the neuro-cognitive basis of space perception for mobility and different theories of space perception. The text presents the existing technologies for space perception (sense recovery with stem and iPS cells, implants, brain plasticity, sensory substitution devices, multi modal technologies, etc.), the newest technologies for mobility assistance design, the way the feedback on environment is conveyed to the end-user. Methods for formative and summative evaluations of the mobility devices will also be discussed. The book concludes with a look to the future trends in research and technology development for mobility assistive information and communication technologies.

Visually Impaired

The Advances in Special Education Technology series is designed to focus international attention on applications of technology for individuals with disabilities.

Designing Inclusive Interactions

As today’s world continues to advance, Artificial Intelligence (AI) is a field that has become a staple of technological development and led to the advancement of numerous professional industries. An application within AI that has gained attention is machine learning. Machine learning uses statistical techniques and algorithms to give computer systems the ability to understand and its popularity has circulated through many trades. Understanding this technology and its countless implementations is pivotal for scientists and researchers across the world. The Handbook of Research on Emerging Trends and Applications of Machine Learning provides a high-level understanding of various machine learning algorithms along with modern tools and techniques using Artificial Intelligence. In addition, this book explores the critical role that machine learning plays in a variety of professional fields including healthcare, business, and computer science. While highlighting topics including image processing, predictive analytics, and smart grid management, this book is ideally designed for developers, data scientists, business analysts, information architects, finance agents, healthcare professionals, researchers, retail traders, professors, and graduate students seeking current research on the benefits, implementations, and trends of machine learning.

Assistive Technologies for People with Diverse Abilities

Learning the World

This new book presents the growing occupational therapy knowledge and clinical practice. Occupational therapy, as a health profession, is concerned with preserving well-being through occupations, and its main goal is to help people participate in the activities of daily living. This is achieved by working with people to improve their ability to engage in the occupations they want to engage in or by changing the occupation or the environment to better support their occupational engagement. The topic of the book has been structured on occupational therapy framework and reflects new research, techniques, and occupational therapy trends. This useful book will help students, occupational therapy educators, and professionals to connect occupational therapy theories and the evidence-based clinical practice.

Assistive Technologies for Differently Abled Students

This book is dedicated to wearable and autonomous systems, including devices, offers to variety of users, namely, master degree students, researchers and practitioners. An opportunity of a dedicated and a deep approach in order to improve their knowledge in this specific field. The book draws the attention about interesting aspects, as for instance, advanced wearable sensors for enabling applications, solutions for arthritic patients in their limited and conditioned movements, wearable gate analysis, energy harvesting, physiological parameter monitoring, communication, pathology detection, etc..

Wearable and Autonomous Biomedical Devices and Systems for Smart Environment

Equal accessibility to public places and services is now required by law in many countries. For the vision-impaired, specialised technology often can provide a fuller enjoyment of the facilities of
Assistive technology has made it feasible for individuals with a wide range of impairments to engage in many activities, such as education and employment, in ways not previously possible. The key factor is to create consumer-driven technologies that solve the problems by addressing the needs of persons with visual impairments. Assistive Technology for Blindness and Low Vision explores a broad range of technologies that are improving the lives of these individuals. Presenting the current state of the art, this book emphasizes what can be learned from past successful products, as well as what exciting new solutions the future holds. Written by world-class leaders in their field, the chapters cover the physiological bases of vision loss and the fundamentals of orientation, mobility, and information access for blind and low vision individuals. They discuss technology for multiple applications (mobility, wayfinding, information access, education, work, entertainment), including both established technology and cutting-edge research. The book also examines computer and digital media access and the scientific basis for the theory and practice of sensory substitution. This volume provides a holistic view of the elements to consider when designing assistive technology for persons with visual impairment, keeping in mind the need for a user-driven approach to successfully design products that are easy to use, well priced, and fill a specific need. Written for a broad audience, this book provides a comprehensive overview and in-depth descriptions of current technology for designers, engineers, practitioners, rehabilitation professionals, and all readers interested in the challenges and promises of creating successful assistive technology.

Braille displays and notetakers

To provide an international forum for the exchange of ideas among interested researchers, students, developers, and practitioners in the areas of computing, communications, and informatics.

Mobility of Visually Impaired People

The forms and genres of academic communication have changed considerably over the past decades - from standardised ways of producing texts on/or paper to a (less?) standardised way of communication in Web 2.0. Published papers are now available to a greater number of people and it has become much more comfortable for students as well as for those outside the scientific community to access academic information and to contact its authors. It seems, however, that many aspects of academic communication have not yet changed, and its participants - either in the "old" or in the "new" generation - are still equipped to work within the multimedia context. This volume, therefore, takes a look at academic communication in the multimedia environment, in order to throw light on how these processes are linked to new multimedia affordances, while at the same time encapsulating old genre conventions and participant interaction with the medium.

User-Centered Software Development for the Blind and Visually Impaired: Emerging Research and Opportunities

This book constitutes the refereed proceedings of the 5th International Conference on Well-Being in the Information Society, WIS 2014, held in Turku, Finland, in September 2014. The 24 revised full papers presented were carefully reviewed and selected from 64 submissions. The core topic is livability and quality of (urban) living with safety and security. The papers address topics such as secure and equal use of information resources, safe and secure work environments and education institutions, cyberaggression and cybersecurity as well as impact of culture on urban safety and security.

The Future of Disability in America

This book constitutes the refereed proceedings of the 14th International Conference on Mobile Web and Intelligent Information Systems, MobiWIS 2017, held in Prague, Czech Republic, in August 2017. The 23 full papers presented in this volume were carefully reviewed and selected from 77 submissions. The call for papers of the MobiWis 2017 included new and emerging areas such as: mobile web systems, recommender systems, security and authentication, context-awareness, mobile web and advanced applications, cloud and IoT, mobility management, mobile and wireless networks, and mobile web practice and experience.

Access Technology for Blind and Low Vision Accessibility

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Assistive Technology for Visually Impaired and Blind People


Assistive Technology for Visually Impaired and Blind People

Occupational Therapy

It is well-known that the most common and largely used assistive technology among the visually impaired community is the white cane. Many technologies have been proposed as alternative assistive devices to improve the autonomous mobility of people affected by visual diseases. Nevertheless, whatever is the physical quantity used by these active assistive technologies - mainly ultrasonic or optical sensors - they present many limitations and none of them adequately meets the international guidelines defined for the electronic travel aids and the specific requests coming from the visually impaired community. The first chapter of this book aims to provide an overview of the existing travel aids for people affected by visual diseases, discussing pros and cons of available technologies. The aim of the next chapter is to convince the reader that solutions based on mobile visual aid systems will answer a critical societal challenge. Chapter Three explores the use of electromagnetic technology in support of visually impaired athlete runners. Chapter Four describes the present state of mobile technologies development taking into consideration the point of view of visually impaired people. Finally, the goal of the concluding chapter is to relate how the audio-description has been produced as a communication accessibility resource.

2018 International Conference on Advances in Computing, Communications and Informatics (ICACCI)

The ability to see deeply affects how human beings perceive and interpret the world around them. For most people, eyesight is part of everyday communication, social activities, educational and professional pursuits, the care of others, and the maintenance of personal health, independence, and mobility. Functioning eyes and vision system can reduce an adult’s risk of chronic health conditions, death, falls and injuries, social isolation, depression, and other psychological problems. In children, properly maintained eye and vision health contributes to a child’s social development, academic achievement, and better health across the lifespan. The public generally recognizes its reliance on sight and fears its loss, but emphasis on eye and vision health, in general, has not been integrated into daily life to the same extent as other health promotion activities, such as teeth brushing; hand washing; physical and mental exercise; and various injury prevention behaviors. A larger population health approach is needed to engage a wide range of stakeholders in coordinated efforts that can sustain the scope of behavior change. The shaping of socioeconomic environments can eventually lead to new social norms that promote eye and vision health. Making Eye Health a Population Health Imperative: Vision for Tomorrow proposes a new population-centered framework to guide action and coordination among various, and sometimes competing, stakeholders in pursuit of improved eye vision health and health equity in the United States. Building on the momentum of previous public health efforts, this report also introduces a model for action that highlights different levels of prevention activities across a range of stakeholders and provides specific examples of how population health strategies can be translated into cohesive areas for action at federal, state, and local levels.

Mobile Web and Intelligent Information Systems

"Access Technology for Blind and Low Vision Accessibility, the second edition of 2008’s Assistive Technology for Students Who Are Blind or Visually Impaired: A Guide to Assessment, uses clear language to describe the range of technology solutions that exists to facilitate low vision and nonvisual access to print and digital information. Part 1 gives teachers, professionals, and families an overview of current technologies including refreshable braille displays, screen readers, 3D printers, cloud computing, tactile media, and integrated development environments. Part 2 builds on this foundation, providing readers with a conceptual and practical framework to guide a comprehensive technology evaluation process. As did its predecessor, Access Technology for Blind and Low Vision Accessibility is focused on giving people who are blind or visually impaired equal access to all activities of self-determined living, allowing them to be seamlessly integrated within their home, school, and work communities"--

Making Eye Health a Population Health Imperative
Assistive Technology Assessment Handbook, Second Edition, proposes an international ideal model for the assistive technology assessment process, outlining how this model can be applied in practice to re-conceptualize the phases of an assistive technology delivery system according to the biopsychosocial model of disability. The model provides reference guidelines for evidence-based practice, guiding both public and private centers that wish to compare, evaluate, and improve their ability to match a person with the correct technology model. This second edition also offers a contribution to the Global Cooperation on Assistive Technology (GATE) initiative, whose activities are strongly focused on the assistive products service delivery model. Organized into three parts, the handbook: gives readers a toolkit for performing assessments; describes the roles of the assessment team members, among them the new profession of psychotechnologist; and reviews technologies for rehabilitation and independent living, including brain–computer interfaces, exoskeletons, and technologies for music therapy. Edited by Stefano Federici and Marcia J. Scherer, this cross-cultural handbook includes contributions from leading experts across five continents, offering a framework for future practice and research.

Assistive Technology for Blindness and Low Vision

Educators who work with students with disabilities have the unique challenge of providing comprehensive and quality educational experiences for students who have a wide range of abilities and levels of focus. Pedagogies and educational strategies can be applied across a student population, though they tend to have varied success. Developing adaptive teaching methods that provide quality experiences for students with varied disabilities are necessary to promote success for as many of these students as possible. Special Education Design and Development Tools for School Rehabilitation Professionals is a comprehensive research publication that examines special education practices and provides in-depth evaluations of pedagogical practices for improved educational experiences for students with disabilities. Highlighting a range of topics such as bilingual education, psychometrics, and physical education, this book is ideal for special education teachers, instructors, rehabilitation professionals, academicians, school administrators, instructional designers, curriculum developers, principals, educational software developers, researchers, and students.

Vision on Assistive Technology

The first report in a new flagship series, WIPO Technology Trends, aims to shed light on the trends in innovation in artificial intelligence since the field first developed in the 1950s.

Journal of Visual Impairment & Blindness

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Safe and Secure Cities

The Digital Scholar: Academic Communication in Multimedia Environment

Advances in Information Communication Technology and Computing

A Doody's Core Title 2012 This new illustrated guide to assistive technologies and devices chronicles the use of AT/AD - technology used by individuals with disabilities to perform functions that might otherwise be difficult or impossible. This book empowers people to use assistive technologies to overcome some of their physical or mental limitations and have a more equal playing field. It includes real-life examples about how people with disabilities are using assistive technology (AT) to assist them in daily tasks, and discusses emotional issues related to AT/AD.

Assistive Technology Assessment Handbook

In a distant-future tale in which humanity has spread to every system within five hundred light-years, the inhabitants of an ancient starship enter orbit around a promising Earth-like planet after a four-hundred-year journey, but detect curious electromagnetic emissions that reveal the existence of intelligent life. By the author of Newton’s Wake.

Visually Impaired
Assistive Technology for Blindness and Low Vision

The two-volume set LNCS 7382 and 7383 constitutes the refereed proceedings of the 13th International Conference on Computers Helping People with Special Needs, ICCHP 2012, held in Linz, Austria, in July 2012. The 147 revised full papers and 42 short papers were carefully reviewed and selected from 364 submissions. The papers included in the first volume are organized in the following topical sections: universal learning design; putting the disabled student in charge: user focused technology in education; access to mathematics and science; policy and service provision; creative design for inclusion, virtual user models for designing and using inclusive products; web accessibility in advanced technologies, website accessibility metrics; entertainment software accessibility; document and media accessibility; inclusion by accessible social media; a new era for document accessibility: understanding, managing and implementing the ISO standard PDF/UA; and human-computer interaction and usability for elderly.

Assistive Technology for Students who are Blind Or Visually Impaired

“This book provide a resource for higher educational institutes to implement effective assistive technologies and other related services for providing differently abled students a quality and equal education, enabling them to excel in their field and get good employment”--