Aging Disability And Independence Selected Papers From The 4th International Conference On Aging Disability And Independence Volume 22 Assistive Technology Research Series

2010 AJN Book of the Year Award Winner in Critical Care--Emergency Nursing! Designated a Doody's Core Title! "This evidence-based book is an excellent reference for ensuring high-quality management of the elderly and of their particular needs in the critical care setting." --AJN "[This] book's contents run the gamut of elder problems and care: physiology, pharmacology, nutrition, restraints, substance abuse....it is a compendium that can be used as a text or a resource." --Claire M. Fagin, PhD, RN, FAAN (From the Foreword) This book is an evidence-based, best-practices guide that directs the bedside care of critically ill elders. The book serves as a reference on major clinical issues for nurses working at the forefront of care-from nurses in critical care and step-down units to those in trauma and emergency departments. Nurse educators at all degree levels will also find this book to be useful as a textbook and resource for students. The authors provide evidence-based, practical guidelines for both the complex clinical and management aspects of care. The book offers comprehensive coverage of all the issues caregivers need to be up to date on, including the standards of practice for geriatric care, new technologies, pharmacotherapy, pain management issues, ethical issues, and much more. Key topics discussed: Strategies for patient safety for older patients in the intensive care setting Family responses to critical care of the older adult Infection, sepsis, and immune function Understanding and managing sleep disorders in older patients in the ICU Heart failure in the critically ill older patient Substance abuse and withdrawal in elderly patients Includes 15 papers submitted for the Fourth International Conference on Aging, Disability and Independence (ICADI). This publication focuses on aging and disability-related services, and research development and policy. It is suitable for research and development personnel, practitioners/service providers, policymakers, and consumers.

Independent living with smart technologies Smart Technology for Aging, Disability, and Independence: The Stateof the Science brings together current research and technologicaldevelopments from engineering, computer science, and therehabilitation sciences, detailing how its applications can promotecontinuing independence for older persons and those withdisabilities. Leading experts from multiple disciplines worldwide havecontributed to this volume, making it the definitive resource. Thetext begins with a thorough introduction that presents importantconcepts, defines key terms, and identifies demographic trends atwork. Using detailed product descriptions, photographs andillustrations, and case studies, subsequent chapters discusscutting-edge technologies, including: * Wearable systems * Human-computer interactions * Assisted vision and hearing * Smart wheelchairs * Handheld devices and smart phones * Visual sensors * Home automation * Assistive robotics * In-room monitoring systems * Telehealth After considering specific high-technology solutions, the textexamines recent trends in other critical areas, such as basicassistive technologies, driving, transportation and communitymobility, home modifications and design, and changing standards ofelder care. Students and professionals in the rehabilitation sciences, healthcare providers, researchers in computer science and engineering,and non-expert readers will all appreciate this text's thoroughcoverage and clear presentation of the state of the science.

The focus of these papers, is on maintaining independence and active participation in family and community activities. As we age, we face chronic health conditions that have the potential to negatively impact our independence. By using technology (smart homes, robotics, telehealth, other assistive devices), maintaining our mobility, and preventing injuries we can offset much or all of the disabling effects of chronic health conditions.

An anthology that answers a need to understand design that supports the daily life of people with dementia. It intends to support the research and development around the topic of dementia in older people, which has stressed innovation, participation in the design process, as well as technical competence and the physical environment.

An advanced look at smart technology to promote the independence of the elderly and disabled Ongoing research and advancements in technology are essential for the continuing independence of elderly and disabled persons. The Engineering Handbook of Smart Technology for Aging, Disability, and Independence provides a thorough analysis of these technologies and the needs of the elderly and disabled, including a breakdown of demographics, government spending, growth rate, and much more. Each chapter is written by an expert in his or her respective field, and gives readers unparalleled insight into the research and developments in a multitude of important areas, including: User-need analyses, classifications, and policies Assistive devices and systems for people with motor disabilities Assistive devices and systems for people with visual and hearing impairments Human-machine interaction and virtual reality Assistive robotics Technology for user mobility and object manipulation Smart homes as assistant environments A discussion of emerging standards and guidelines to build accessible devices, tools, and environments This book is an indispensable resource for researchers and professionals in computer science, rehabilitation science, and clinical engineering. It also serves as a valuable textbook for graduate students in the aforementioned fields. Americans are living longer than ever before. For many, though, these extra years have become a bitter gift, marred by dementia, disability, and loss of independence. Extending Life, Enhancing Life sets the course toward practical solutions to these problems by specifiying 15 research priorities in five key areas of investigation: Basic biomedicine--To understand the fundamental processes of aging. Clinical--To intervene against common disabilities and maladies of older persons. Behavioral and social--To build on past successes with behavioral and social interventions. Health services delivery--To seek answers to the troubling issues of insufficient delivery of health care in the face of increasing health care costs. Biomedical ethics--To clarify underlying ethical guidelines about life and death decisions. Most important, the volume firmly establishes the connection between research and its beneficial results for the quality of life for older persons.

Why are adults in their twenties and thirties boomeranging back to or never leaving their parents' homes in the world's wealthiest countries? Acclaimed sociologist Katherine Newman addresses this phenomenon in this timely and original book that uncovers fascinating links between globalization and the failure-to-launch trend. With over 300 interviews conducted in six countries, Newman concludes that nations with weak welfare states have the highest frequency of accordion families. She thoughtfully considers the positive and negative implications of these new relationships and suggests that as globalization reshapes the economic landscape it also continues to redefine our private lives.

Aging, Disability and IndependenceSelected Papers from the 4th International Conference on Aging, Disability and Independence As the demographics of the United States shift toward a population that is made up of an increasing percentage of older adults and people with disabilities, the workforce that supports and enables these individuals is also shifting to meet the demands of this population. For many older adults and people with disabilities, their priorities include maximizing their independence, living in their own homes, and participating in their communities. In order to meet this population's demands, the workforce is adapting by modifying its training, by determining how to coordinate among the range of different professionals who might play a role in supporting any one older adult or individual with disabilities, and by identifying the ways in which technology might be helpful. To better understand how the increasing demand for supports and services will affect the nation's workforce, the National Academies of Sciences, Engineering, and Medicine convened a public workshop in June 2016, in Washington, DC. Participants aimed to identify how the health care workforce can be strengthened to support both community living and community participation for

adults with disabilities and older adults. This publication summarizes the presentations and discussions from the workshop.
As enrollment numbers continue to grow for online education classes, it is imperative instructors be prepared to teach students from diverse groups. Students who engage in learning in classrooms where their backgrounds are recognized and the instruction is welcoming and all-inclusive perform better. Individuals who teach in online settings must endeavor to create caring and culturally appropriate environments to encourage learning among all students irrespective of their demographic composition. Care and Culturally Responsive Pedagogy in Online Settings is a collection of innovative research on the incorporation of culturally sensitive teaching practices in online classrooms, and how these methods have had an impact on student learning. While highlighting topics including faculty teaching, restorative justice, and nontraditional students, this book is ideally designed for instructors, researchers, instructional designers, administrators, policymakers, and students seeking current research on online educators incorporating care and culturally responsive pedagogy into practice.
This book discusses the state of the research and cutting-edge practice with regard to chronic illnesses and rehabilitation in older adults. It emphasizes biopsychosocial and culturally appropriate rehabilitation approaches to reduce the degree of disability and maximize independence in the activities of daily living among the burgeoning aging population. Organized in four sections—Introduction and Overview, Major Illnesses and Problems in Aging Populations, Evaluation of Functional Rehabilitation Approaches for Aging Populations, and Future Clinical Research Needs—the book includes chapters on the "graying" of the West with implications for increased chronic illnesses and disabilities; a review of biopsychosocial rehabilitation approaches; important "aging" issues such as slips-and-falls, musculoskeletal pain, chronic disabling conditions such as cancer and cardiovascular disease, and work-related factors to maintain work engagement in older workers. The US Census Bureau projects that by the year 2030, about 20% of the U.S. population will be 65 or older, contributing to the increased concern about healthcare and rehabilitation issues among older adults. /div This work will be of interest to healthcare, rehabilitation, vocational, human resource and disability management professionals, policy makers as well as researchers in areas of aging, gerontology, chronic illness, disability, rehabilitation, social work, medicine and psychology.
Living independently and participating in one's community are priorities for many people. In many regions across the United States, there are programs that support and enable people with disabilities and older adults to live where they choose and with whom they choose and to participate fully in their communities. Tremendous progress has been made. However, in many cases, the programs themselves â€" and access to them â€" vary not only between states but also within states. Many programs are small, and even when they prove to be successful they are still not scaled up to meet the needs of the many people who would benefit from them. The challenges can include insufficient workforce, insufficient funding, and lack of evidence demonstrating effectiveness or value. To get a better understanding of the policies needed to maximize independence and support community living and of the research needed to support implementation of those policies, the National Academies of Sciences, Engineering, and Medicine convened a public workshop in October 2015. Participants explored policies in place that promote independence and community living for older adults and people with physical disabilities, and identified policies and gaps in policies that can be barriers to independence and the research needed to support changing those policies. This report summarizes the presentations and discussions from the workshop.
This handbook presents an overview of studies on the relationship of active ageing and quality of life. It addresses the new challenges of ageing from the paradigm of positive ageing (active, healthy and successful) for a better quality of life. It provides theoretical perspectives and empirical studies, including scientific knowledge as well as practical experiences about the good ageing and the quality of later life around the world, in order to respond to the challenges of an aged population. The handbook is structured in 4 sections covering theoretical and conceptual perspectives, social policy issues and research agenda, methods, measurement instrument-scales and evaluations, and lastly application studies including domains and geographical contexts. Chapter 5 is available open access under a Creative Commons Attribution 4.0 International License via link.springer.com./div
"A thoughtful and original contribution to rehabilitation and aging literature. It provides important patient-centered insights and offers specific information on disabling conditions that worsen with age." -- Jeremy D. Walston, The Johns Hopkins School of Medicine
Through the autobiographical perspectives of 16 preeminent researchers and scholars of Environmental Gerontology, this state-of-the-art Annual Review critically examines the broad range of topics that comprise this interdisciplinary field. The writings of these individuals, who have contributed to and shaped the growth of the field over the past three-plus decades, trace the growth and evolution of Environmental Gerontology and provide understanding of, and insights on, the role of environments for older adults and an aging society at multiple levels. The book examines the origins and growth of Environmental Gerontology, how the personal influences and professional choices of each author is linked to its development, the contextual factors influencing its biographical-intellectual evolution, and its potential implications for an aging society. The Review encompasses research and scholarship in diverse scales/contexts of the physical/built environment; diversity of disciplinary backgrounds represented by related social sciences, health sciences, and environmental design; basic/theoretical and applied/policy-oriented research; and more. Key Features: Promotes a critical understanding of the state of science and art in Environmental Gerontology Examines the origin, evolution, development, and future perspective of the field through the unique autobiographical lens of its worldwide pioneers Represents theoretical/substantive/applied perspectives through the reflections of preeminent scholars Focuses on intellectual development of pioneers in the field
Financing Long-Term Services and Supports for Individuals with Disabilities and Older Adults is the summary of a workshop convened in June 2013 by the Forum on Aging, Disability, and Independence of the Institute of Medicine and the National Research Council to examine the financing of long-term services and supports for working-age individuals with disabilities and among individuals who are developing disabilities as they age. The workshop covered both older adults who acquire disabilities and younger adults with disabilities who may acquire additional impairments as they age, the target population of the Forum's work. The challenges associated with financing long-term services and supports for people with disabilities impacts all age groups. While there are important differences between the characteristics of programs developed for different age groups, and specific populations may have different needs, this workshop addressed the financing sources for long-term services and supports in general, noting specific differences as appropriate. The financing of long-term services and supports has become a major issue in the United States. These are the services and supports that individuals with disabilities, chronic conditions, and functional impairments need in order to live independently, such as assistance with eating, bathing, and dressing. Long-term services and supports do not include the medical or nursing services required to manage health conditions that may be responsible for a disabling condition. At least 11 million adults ages 18 and over receive long-term services and supports. Only a little more than half of them - 57 percent - are ages 65 or older. One study found that about 6 percent of people turning 65 in 2005 could expect to have expenses of more than $100,000 for long-term services and supports. Financing Long-Term Services and Supports for Individuals with Disabilities and Older Adults discusses the scope and trends of current sources of financing for long-term services and supports for working-age individuals with

disabilities and older adults aging into disability, including income supports and personal savings. This report considers the role of families, business, and government in financing long-term services and supports and discusses implications of and opportunities for current and innovative approaches.

This book constitutes the carefully refereed post-conference proceedings of two International Workshops: Self-Managing Solutions for Smart Environments, S3E 2011; and the workshop on Health and Well-being Technologies and Services for Elderly, HWTS 2011; as well as a Doctoral Colloquium, held in conjunction with, GPC 2011, in Oulu, Finland, in May 2011. The 19 revised full papers presented together with 1 keynote lecture were carefully revised and selected from 26 submissions and focus on the topics self-managing solutions for smart environments; health and well-being technologies, and services for elderly. The topics of the doctoral colloquium papers had a wide scope and they represented different viewpoints and sub-disciplines inside the ICT field.

Many different groups of people are subject to stereotypes. Positive stereotypes (e.g., "older and wiser") may provide a benefit to the relevant groups. However, negative stereotypes of aging and of disability continue to persist and, in some cases, remain socially acceptable. Research has shown that when exposed to negative images of aging, older persons demonstrate poor physical and cognitive performance and function, while those who are exposed to positive images of aging (or who have positive self-perceptions of aging) demonstrate better performance and function. Furthermore, an individual's expectations about and perceptions of aging can predict future health outcomes. To better understand how stereotypes affect older adults and individuals with disabilities, the National Academies of Sciences, Engineering, and Medicine, with support from AARP, convened a public workshop on October 10, 2017. This publication summarizes the presentations and discussions from the workshop.

Over the past few years, the Institute for Prospective Technological Studies (IPTS) has been carrying out research in the field of ageing, with a focus on the role that Information and Communication Technologies (ICT) can play to promote Active Ageing. IPTS has looked at the issue from several perspectives, including the socio-economic and technological dimensions of both the ageing phenomenon and the Active Ageing policies that the EU is now adopting. Information and Communication Technologies for Active Ageing attempts to reflect aspects of the contribution ICT can make to quality of life for older citizens in Europe. Benefits can be found in health, employment, housing and elsewhere. The potential market for innovative solutions in ICT for Active Ageing is crucial for the European economy and for the society at large. The European Union has the opportunity to become a research and market leader through innovative applications and services for ageing. Moreover, the promotion of societal values in Europe regarding ageing can serve as a model for other ageing societies. This book is to be expected to contribute to the debates on ICT for Active Ageing and provide important hints for research in the field fostered by the European Commission's Directorate General for Information and Media.

Universal Design, Design for All and Inclusive Design are all aimed at dismantling physical and social barriers to inclusion in all areas of life. Engagement in universal design is on the increase worldwide as practitioners and researchers explore creative and desirable solutions to shape the future of universal design products and practices. This book is a collection of the papers presented at UD2014, the International Conference on Universal Design, held in Lund, Sweden, in June 2014. The conference offered a creative and diverse meeting place for all participants to exchange knowledge, experiences and ideas, and to build global connections and creative networks for future work on universal design. The themes of UD2014 span many aspects of societal life, and the papers included here cover areas as diverse as architecture, public transport, educational and play environments, housing, universal workspaces, and the Internet of things, as well as designs and adaptations for assistive technology. The book clearly demonstrates the breadth of universal design and its ongoing adoption in societies all over the world, and will be of interest to anyone whose work involves building a more inclusive environment for all.

The papers in this book provide important content related to aging, disability and independence. The focus of these papers is on maintaining independence and active participation in family and community activities. As we age, we face chronic health conditions that have the potential to negatively impact our independence. By using technology (smart homes, robotics, telehealth, other assistive devices), maintaining our mobility, and preventing injuries we can offset much or all of the disabling effects of chronic health conditions. This publication brings together a mix of individuals focused on aging, disability and independence, including those involved in research and development, professional practice and services, businesses providing products and services, government and policy planners, and end users and beneficiaries of our research, products, services, and policies. The main topics in this publication are Smart Homes; Robotics; Telehealth; Home Modifications and Universal Design; and Assistive Devices and Workplace Adaptations.

This bibliography offers valuable annotated references on housing for older population for those interested in these initiatives and discussions. It begins with an overview piece on the state of policy, practice and research on housing for the older population in Singapore. This is followed by an annotated bibliography featuring published and unpublished work, spanning recent decades, pertaining to housing for the older population with emphasis on Singapore. It encompasses theoretical and empirical research reported in journal articles and book chapters as well as grey literature, like dissertations and theses, conference proceedings, working papers and newspaper articles. The bibliography also contains additional citations covering global studies, in particular, in Asia, North America and UK. It is hoped that this bibliographic material will serve as a useful starting reference point for discussions on housing of older people in Singapore and also for key developments in other parts of the world. The goal is to encourage additional scholarship.

This book is a collection of summarized papers and poster presentations from the 4th International Congress Rehabilitation: Mobility, Exercise & Sports, which will be of interest to all those involved in the field of human movement sciences and the rehabilitation professions. Rehabilitation medicine is a relatively young discipline, as is the science of human movement, but both have progressed rapidly from their inception in the latter half of the 20th century to take their current place as important, multi-disciplinary, evidence-based, academic and clinical research subjects.

This book constitutes the refereed proceedings of the 7th International Conference On Smart Homes and and Health Telematics, ICOST 2009, held in Tours, France, in July 2009. The 27 revised full papers and 20 short papers presented were carefully reviewed and selected from numerous submissions. The papers are organized in topical sections on cognitive assistance and chronic diseases management; ambient living systems; service continuity and context awareness; user modeling and human-machine interaction; ambient intelligence modeling and privacy issues, human behavior and activities monitoring.

The concept of assistive technology is moving away from adopting the most appropriate devices to overcome the limitations of users, to the designing and setting up of total environments in which people can live, supported by suitable services and additional support devices integrated within the environment. These two perspectives are deeply

intertwined, both from technological and social points of view, and the relationship between them currently represent the primary challenge for the field of assistive technology. This publication covers the proceedings of the 10th European Conference of the Association for the Advancement of Assistive Technology in Europe (AAATE), the organization which stimulates the advancement of assistive technology for the benefit of people with disabilities, including elderly people. This conference seeks to bridge the gap between these two complementary approaches, providing an opportunity to clarify differences and common points and to better define future direction. This publication is a significant contribution to the advancement of inclusion for people living with a disability everywhere.

This book includes 15 full-length papers submitted for the Fourth International Conference on Aging, Disability and Independence (ICADI). These papers reflect five ICADI tracks: Livable Homes and Communities, Smart Homes and Robotics, Transportation, Work, Assistive Technology and one ICADI theme: Consumer Perspective. The major focus of this publication is on aging and disability-related services, research development and policy, bringing together a rich mix of motivated and talented individuals (multi-disciplinary and engaged in different sectors and types of organizations) who ultimately impact these services. Further, the aim is to provide the opportunity to learn more about the successes, challenges and different approaches to the independence-related needs of elders in different countries. This book is of interest to research and development personnel, practitioners/service providers, policymakers, business representatives, consumers, professional and graduate students.

Telehomecare systems have been in existence, in one form or another, for at least a decade. At the outset, the concept seemed to promise both a solution to controlling rising health care costs and a means of delivering the improved care which would enable the elderly to stay in their own homes for longer; but although it received enthusiastic support from governments and care professionals, as well as the commercial sector, adoption within a given community has not yet been achieved, and overall success has been limited at best. This book addresses the question of why, despite the investment of so much time, money and effort, Telehomecare is not more widely used than it is. The author describes his 20 years of experience in the field as a journey which started with a concern over his mother's health, and ended with himself and a colleague selling a series of patents to General Electric. Drawing on his experiences as an inventor, entrepreneur, businessman, implementer and researcher, he conducts a frank and thorough consideration of what has gone wrong, and offers an unflinching set of suggestions as to how to make it right. Telehomecare must become more than just a passive emergency response system if it is to have any chance of achieving its full potential. The analysis offered by this book will be of interest to all those whose work involves the development or implementation of Telehomecare systems.

Advances in technology continue to alter the ways in which we conduct our lives, from the private sphere to how we interact with others in public. As these innovations become more integrated into modern society, their applications become increasingly relevant in various facets of life. Wearable Technologies: Concepts, Methodologies, Tools, and Applications is a comprehensive reference source for the latest scholarly material on the development and implementation of wearables within various environments, emphasizing the valuable resources offered by these advances. Highlighting a range of pertinent topics, such as assistive technologies, data storage, and health and fitness applications, this multi-volume book is ideally designed for researchers, academics, professionals, students, and practitioners interested in the emerging applications of wearable technologies.

The Institute of Medicine (IOM) and the National Research Council (NRC) have had prominent roles in discussions of aging, disability, and technology for decades. In 1978, Aging and Medical Education (IOM, 1978) raised national awareness of the challenges to physicians posed by the aging of the U.S. population. Thirty years later, Retooling for an Aging America highlighted concerns for the entire health care workforce in view of the aging of the population, including the role of technology in caring for older populations. The 1988 report The Aging Population in the 21st Century examined social, economic, and demographic changes among older adults, as well as many health-related topics: health promotion and disease prevention; quality of life; health care system financing and use; and the quality of care- especially long-term care. In 1991, the landmark report Disability in America laid out a national agenda to prevent disability and improve the lives of people with disabling conditions. The 1997 report Enabling America: Assessing the Role of Rehabilitation Science and Engineering examined the knowledge base of rehabilitation science and engineering and proposed ways to translate scientific findings into interventions that produce better health. And the 2007 report The Future of Disability in America examined progress made since the earlier reports and looked at continuing barriers that limit the independence, productivity, and participation in community life of people with disabilities. All these reports were produced by committees appointed in accordance with guidelines of the National Academies and met multiples times to compile and review evidence, reach consensus on conclusions and recommendations, draft a report of the committee, and then modify that draft report in response to comments from outside reviewers. The IOM and NRC have also held several workshops related to aging, disability, and technology and published summary reports, such as Technology for Adaptive Aging and Grand Challenges of Our Aging Society. The IOM and NRC also convene groups that take a different approach to issues of pressing national and international importance. Often known as forums or roundtables, these groups meet regularly to foster dialogue and confront issues of mutual interest and concern among a broad range of stakeholders. They can convene workshops, initiate cooperative projects among members, commission independently authored articles, and generate ideas for independent consensus studies. In 2012 the IOM and NRC joined together to establish the Forum on Aging, Disability, and Independence to provide a neutral venue for broad-ranging discussions among the many stakeholders involved with aging and disability. The goals of the forum are to highlight areas in which the coordination of the aging and disability networks is strong, examine the challenges involved in aligning the aging and disability networks, explore new approaches for resolving problem areas, elevate the visibility and broaden the perspectives of stakeholders, and set the stage for future policy actions. Forum sponsors and members include federal agencies, health professional associations, private sector businesses, academics, and consumers. Fostering Independence, Participation, and Healthy Aging Through Technology summarizes this workshop.

Healthcare sensor networks (HSNs) now offer the possibility to continuously monitor human activity and physiological signals in a mobile environment. Such sensor networks may be able to reduce the strain on the present healthcare workforce by providing new autonomous monitoring services ranging from simple user-reminder systems to more advanced mon