Current Trends In Eye Tracking Research

This is the second volume of the two-volume set (CCIS 617 and CCIS 618) that contains extended abstracts of the posters presented during the 18th International Conference on Human-Computer Interaction, HCII 2016, held in Toronto, Canada, in July 2016. The total of 1287 papers and 186 posters presented at the HCII 2016 conferences was carefully reviewed and selected from 4354 submissions. These papers address the latest research and development efforts and highlight the human aspects of design and use of computing systems. The papers thoroughly cover the entire field of Human-Computer Interaction, addressing major advances in knowledge and effective use of computers in a variety of application areas. The papers included in this volume are organized in the following topical sections: web, social media and communities; gesture and motion-based interaction; expressions and emotions recognition and psychophysiological monitoring; technologies for learning and creativity; health applications; location-based and navigation applications; smart environments and the Internet of Things; design and evaluation case studies.

Our eye movements in response to visual stimuli reveal much about how we experience the world. Focusing on the latest developments in the multidisciplinary field of eye tracking research, this volume ranges across a wide spectrum of research applications, with four sections covering the plethora of practical uses to which our expanding knowledge can be put. They offer abundant evidence that eye tracking research and its methodologies offer new ways of collecting data, framing research questions, and thinking about how we view our world. As a result, we are discovering more about how the visual system works, as well as how it interacts with attention, cognition, and behaviour. Current Trends in Eye Tracking Research presents the work of more than 50 researchers and academics, showcasing groundbreaking studies and innovative ways of applying eye tracking technologies to interesting research problems. The book covers the current output of a number of pioneering research laboratories, detailing their work on eye tracking and the visual system, alignment and EEG data, marketing and social applications, and eye tracking in education. Featuring creative uses of existing technology as well as inventive implementation of new technology in a range of research contexts and disciplines, this new publication is compelling proof of the growing importance of this exciting and fast-moving area of scientific endeavor.

Eye Tracking in Second Language Acquisition and Bilingualism provides foundational knowledge and hands-on advice for designing, conducting, and analysing eye-tracking research in applied linguistics. Godfroid’s research synthesis and methodological guide introduces the reader to fundamental facts about eye movements, eye-tracking paradigms for language scientists, data analysis, and the practicalities of building a lab. This indispensable book will appeal to undergraduate students learning principles of experimental design, graduate students developing their theoretical and statistical repertoires, experienced scholars looking to expand their own research, and eye-tracking professionals.

New Trends in Ophthalmology presents ophthalmologists with the most recent technological developments in this rapidly advancing field. Each chapter explains current diagnosis and medical and surgical management of different ocular disorders and diseases, including cataract surgery, glaucoma treatment and lens implant surgery. Presented in an easy to follow format, this comprehensive manual is enhanced by nearly 400 clinical photographs, diagrams and tables. Key points Comprehensive guide to latest technological developments in ophthalmology Presents medical and surgical management of numerous ocular diseases and disorders Internationally recognised author and editor team, predominantly from Europe and the USA Includes nearly 400 full colour clinical photographs, diagrams and tables

This book offers a broad perspective on the field of cognitive engineering and neuroergonomics, covering emerging practices and future trends toward the harmonious integration of human operators with computational systems. It reports on novel theoretical findings on mental workload and stress, activity theory, human reliability, error and risk, and neuroergonomic measures alike, together with a wealth of cutting-edge applications. Further, the book describes key advances in our understanding of cognitive processes, including mechanisms of perception, memory, reasoning, and motor response, with a special emphasis on their role in interactions between humans and other elements of computer-based systems. Based on the AHFE’s main track on Neuroergonomics and Cognitive Engineering, held on July 17–21, 2017 in Los Angeles, California, USA, it provides readers with a comprehensive overview of the current challenges in cognitive computing and factors influencing human performance.

Dynamic economics, technological changes, increasing pressure from competition and customers to improve manufacturing and services are some of the major challenges to enterprises these days. New ways of improving organizational activities and management processes have to be created, in order to allow enterprises to manage the seemingly intensifying competitive markets successfully. Enterprises apply business optimizing solutions to meet new challenges and conditions. But also ensuring effective development for long-term competitiveness in a global environment. This is necessary for the application of qualitative changes in the industrial policy. “New Trends in Process Control and Production Management” (MTS 2017) is the collection of research papers from authors from seven countries around the world. They present case studies and empirical research which illustrates the progressive trends in business process management and the drive to achieve enterprise development and sustainability.

A focus on the developmental progress of children before the age of eight helps to inform their future successes, including their personality, social behavior, and intellectual capacity. However, it is difficult for experts to pinpoint best learning and parenting practices for young children. Early Childhood Development: Concepts, Methodologies, Tools, and Applications is an innovative reference source for the latest research on the cognitive, socio-emotional, physical, and linguistic development of children in settings such as homes, community-based centers, health facilities, and school. Highlighting a range of topics such as cognitive development, parental involvement, and school readiness, this multi-volume book is designed for educators, healthcare professionals, parents, academicians, and researchers interested in all aspects of early childhood development.

Athletes participating at all levels of endurance performance can relate to the impact of psychological factors. Whether it is motivation, self-belief, feeling nervous before a race, exercise-induced pain, sticking to a pacing strategy, or thoughts around what to focus on, there are a vast number of psychological factors which can affect endurance performance. Bringing together experts in the field from around the world, this is the first text to provide a detailed overview of the psychology of endurance performance where there is a research and an applied focus

looking at both main theoretical models as well as how interventions can support an athlete's efficacy and well-being. The authors look at regulatory processes around pain, decision-making, self-belief, emotions, and meta-cognition, before examining a range of cognitive strategies, including the use of imagery, goals, self-talk, and mindfulness techniques. With a final section of the book outlining issues related to mental health that are relevant to endurance performance, the book shows that the future of research and application of psychological theory in endurance performance in sport is bright and thriving. Aimed at researchers, students, coaches, and athletes themselves, this is essential reading for anyone wishing to better understand how our minds experience endurance in performance arenas, and what psychological techniques can be used to make us more efficient.

This book contains selected papers presented at the 14th IFIP WG 9.2, 9.6/11.7, 11.6/SIG 9.2.2 International Summer School on Privacy and Identity Management, held in Windisch, Switzerland, in August 2019. The 22 full papers included in this volume were carefully reviewed and selected from 31 submissions. Also included are reviewed papers summarizing the results of workshops and tutorials that were held at the Summer School as well as papers contributed by several of the invited speakers. The papers combine interdisciplinary approaches to bring together a host of perspectives, which are reflected in the topical sections: language and privacy; law, ethics and AI; biometrics and privacy; tools supporting data protection compliance; privacy classification and security assessment; privacy enhancing technologies in specific contexts. The chapters "What Does Your Gaze Reveal About You? On the Privacy Implications of Eye Tracking" and "Privacy Implications of Voice and Speech Analysis - Information Disclosure by Inference" are open access under a CC BY 4.0 license at link.springer.com.

A Handbook of Process Tracing Methods demonstrates how to better understand decision outcomes by studying decision processes, through the introduction of a number of exciting techniques. Decades of research have identified numerous idiosyncrasies in human decision behavior, but some of the most recent advances in the scientific study of decision making involve the development of sophisticated methods for understanding decision process—known as process tracing. In this volume, leading experts discuss the application of these methods and focus on the best practices for using some of the more popular techniques, discussing how to incorporate them into formal decision models. This edition has been expanded and thoroughly updated throughout, and now includes new chapters on mouse tracking, protocol analysis, neurocognitive methods, the measurement of valuation, as well as an overview of important software packages. The volume not only surveys cutting-edge research to illustrate the great variety in process tracing techniques, but also serves as a tutorial for how the novice researcher might implement these methods. A Handbook of Process Tracing Methods will be an essential read for all students and researchers of decision making.

Up to now, the Handbook of Translation Studies (HTS) consisted of four volumes, all published between 2010 and 2013. Since research in TS continues to grow and expand, this fifth volume was added in 2021. The HTS aims at disseminating knowledge about translation, interpreting, localization, adaptation, etc. and providing easy access to a large range of topics, traditions, and methods to a relatively broad audience: not only students who prefer such user-friendliness, but also researchers and lecturers in Translation Studies, Translation & Interpreting professionals, as well as scholars and experts from other adjacent disciplines. All articles in HTS are written by specialists in the different subfields and are peer-reviewed.

The book is addressed to architects and civil engineers. Design and research are areas connecting their activities. The contents of the book confirm the fact that the interface between architecture and engineering is multidimensional. The ways of finding points of contact between the two industries are highlighted. This is favored by the dynamically changing reality, supported by new design paradigms and new research techniques. The multithreaded subject matter of the articles is reduced to six sections: Research Scopes, Methods, Design Aspects, Context, Nature of Research, and Economy and Cost Calculation. Each of the articles in these six blocks has its weight. And so, in the Nature of Research section, the following areas have been underscored: laboratory tests, in situ research, field investigations, and street perception experiments. The section Design Aspects includes design-oriented thinking, geometrical forms, location of buildings, cost prediction, attractor and distractor elements, and shaping spatial structures. The new design and research tools are an inspiration and a keystone bonding architects and engineers.

This three-book set constitutes the refereed proceedings of the Second International Conference on Recent Trends in Image Processing and Pattern Recognition (RTIP2R) 2018, held in Solapur, India, in December 2018. The 173 revised full papers presented were carefully reviewed and selected from 374 submissions. The papers are organized in topical sections in the tree volumes. Part I: computer vision and pattern recognition; machine learning and applications; and image processing. Part II: healthcare and medical imaging; biometrics and applications. Part III: document image analysis; image analysis in agriculture; and data mining, information retrieval and applications.

Business practices are rapidly changing due to technological advances in the workplace. Organizations are challenged to implement new programs for more efficient business while maintaining their standards of excellence and achievement. Human Performance Technology: Concepts, Methodologies, Tools, and Applications is a vital reference source for the latest research findings on real-world applications of digital tools for human performance enhancement across a variety of settings. This publication also examines the utilization of problem-based instructional techniques for challenges and solutions encountered by industry professionals. Highlighting a range of topics such as performance support systems, workplace curricula, and instructional technology, this multi-volume book is ideally designed for business executives and managers, business professionals, human resources managers, academicians, and researchers actively involved in the business industry.

Since its inception, eye-tracking technology has evolved into a critical device in psychological and sociological settings. By tracking eye movement, one can conduct lie detection,

learn about neuropsychology, and measure reading response. Recently, these technologies have been implemented in Educational and School Psychology as a way to assess how students interact with content. Eye-Tracking Technology Applications in Educational Research enriches the current pool of educational research with cutting-edge applications of eye tracking in education. Seeking to advance this emergent, interdisciplinary field, this publication collects a diverse group of researchers exploring all aspects of this technology as an essential reference for educators, researchers, administrators, and advanced graduate students.

This book offers a systematic overview of the concepts and practical techniques that readers need to get the most out of their large-scale data mining projects and research studies. It guides them through the data-analytical thinking essential to extract useful information and obtain commercial value from the data. Presenting the outcomes of International Conference on Soft Computing and Data Mining (SCDM-2017), held in Johor, Malaysia on February 6–8, 2018, it provides a well-balanced integration of soft computing and data mining techniques. The two constituents are brought together in various combinations of applications and practices. To thrive in these data-driven ecosystems, researchers, engineers, data analysts, practitioners, and managers must understand the design choice and options of soft computing and data mining techniques, and as such this book is a valuable resource, helping readers solve complex benchmark problems and better appreciate the concepts, tools, and techniques employed.

This book gathers selected papers presented at the Third International Symposium on Signal and Image Processing (ISSIP 2020), organized by the Department of Information Technology, RCC Institute of Information Technology, Kolkata, during March 18–19, 2020. It presents fascinating, state-of-the-art research findings in the field of signal and image processing. It includes conference papers covering a wide range of signal processing applications involving filtering, encoding, classification, segmentation, clustering, feature extraction, denoising, watermarking, object recognition, reconstruction and fractal analysis. It addresses various types of signals, such as image, video, speech, non-speech audio, handwritten text, geometric diagram, ECG and EMG signals; MRI, PET and CT scan images; THz signals; solar wind speed signals (SWS); and photoplethysmogram (PPG) signals, and demonstrates how new paradigms of intelligent computing, like quantum computing, can be applied to process and analyze signals precisely and effectively.

New Trends in Multimedia and Network Information Systems discusses a very broad scope of subject matters including multimedia systems in their widest sense, web systems and network technologies. This monograph also includes texts devoted to more traditional information systems that draw on the experience of the multimedia and network systems. Each of the discussed research trends is considered from both theoretical and practical viewpoints. Imposing a clear-cut classification for such a diverse research area is not an easy task. The challenge is even greater due to the fact that in this book the focus lies on the most topical research work of scientists from all over the world. The studies are original and were not published anywhere else. The chapters represent the dominant advances in computer information systems and it is worth emphasizing that in most cases the research work relies heavily on the achievements and techniques developed originally in the area of artificial intelligence. As a result, the monograph is divided into four major parts: multimedia information technology; data processing in information systems; information system applications; and web systems and network technologies. Each of these parts covers a couple of chapters on detailed subject fields that comprise the area of its title.

The aim of this volume is to provide deep insights and the latest scientific developments and trends in experimental economics. Derived from the 2015 Computational Methods in Experimental Economics (CMEE) conference, this book features papers containing research and analysis of economic experiments concerning research in such areas as management science, decision theory, game theory, marketing and political science. The goal is to present possibilities for using various computer methods in the scope of experimental economics to further provide researchers with a wide variety of tools. The field of experimental economics is rapidly evolving. Modern use of experimental economics requires the integration of knowledge in the domains of economic sciences, computer science, psychology, and neuroscience. Recent research includes experiments conducted both in the laboratory and in the field, and the results are used for testing and a better understanding of economic theories. Researchers working in this field use mainly a set of well-established methods and computer tools that support the experiments. Methods such as artificial intelligence, computer simulation and computer graphics, however, are not represented enough in experimental economics studies and most experimenters do not consider their usage. The goal of the conference and the enclosed papers is to allow for an exchange of experiences and to promote joint initiatives to insight change in this trend.

This book reports on research on innovative human systems integration and human-machine interaction, with an emphasis on artificial intelligence and automation, as well as computational modeling and simulation. It covers a wide range of applications in the area of design, construction and operation of products, systems and services, including lifecycle development and human-technology interaction. The book describes advanced methodologies and tools for evaluating and improving interface usability, new models, as well as case studies and best practices in virtual, augmented and mixed reality systems, with a special focus on dynamic environments. It also discusses different factors concerning the human, hardware, and artificial intelligence software. Based on the proceedings of the 1st International Conference on Intelligent Human Systems Integration (IHSI 2018), held on January 7-9, 2018, in Dubai, United Arab Emirates, the book also examines the forces that are currently shaping the nature of computing and cognitive systems, such as the need for decreasing hardware costs; the importance of infusing intelligence and automation, and the related trend toward hardware miniaturization and power reduction; the necessity for a better assimilation of computation in the environment; and the social concerns regarding access to computers and systems for people with special needs. It offers a timely survey and a practice-oriented reference guide to policy- and decision-makers, human factors engineers, systems developers and users alike.

This two-volume set LNCS 11569 and 11570 constitutes the refereed proceedings of the Thematic Area on Human Interface and the Management of Information, HIMI 2019, held as part of HCI International 2019 in Orlando, FL, USA. HCII 2019 received a total of 5029 submissions, of which 1275 papers and 209 posters were accepted for publication after a careful reviewing process. The 91 papers presented in the two volumes were organized in topical sections named: Visual information; Data visualization and analytics; Information, cognition and learning; Information, empathy and persuasion; Knowledge management and sharing; Haptic and tactile interaction; Information in virtual and augmented reality; Machine learning and intelligent systems; Human motion and expression recognition and tracking; Medicine, healthcare and quality of life applications.

Covering key areas of evaluation and methodology, client-side applications, specialist and novel technologies, along with initial appraisals of disabilities, this important book provides comprehensive coverage of web accessibility. Written by leading experts in the field, it provides an overview of existing research and also looks at future developments, providing a much deeper insight than can be obtained through existing research libraries, aggregations, or search engines.

This edited volume presents fundamentals as well as applications of oculomotor methods in industrial and clinical settings. The topical spectrum covers 1.) basics and background material, 2.) methods such

as recording techniques, markov models, Lévy flights, pupillometry and many more, as well as 3.) a broad range of applications in clinical and industrial settings. The target audience primarily comprises research experts and practitioners, but the book may also be beneficial for graduate students.

Emerging technologies have enhanced the learning capabilities and opportunities in modern school systems. To continue the effective development of such innovations, the intended users must be taken into account. End-User Considerations in Educational Technology Design is a pivotal reference source for the latest scholarly material on usability testing techniques and user-centered design methodologies in the development of technological tools for learning environments. Highlighting a range of pertinent topics such as multimedia learning, human-computer interaction, and online learning, this book is ideally designed for academics, researchers, school administrators, professionals, and practitioners interested in the design of optimized educational technologies.

La 4è de couv. indique : "Marketing An Introduction introduces students at all levels, undergraduate, postgraduate and professional courses, to marketing concepts. It focuses on how to build profitable customer relationships by encouraging students to apply concepts to real commercial practice through numerous case studies from around the world. Now updated with the last ideas in digital marketing such as big data, analytics and social marketing as well as up-to-date case studies from a range of consumer and industrial brands including Netflix, Aldi, Spotify, Phillips, Renault and Airbus 380, this fourth edition combines the clarity and authority of the Kotler brand within the context of European marketing practice. Marketing An Introduction makes learning and teaching marketing more effective, easier and more enjoyable. The text's approachable style and design are well suited to cater to the enormous variety of students taking introductory marketing classes."

The 13th International Conference on Human–Computer Interaction, HCI Inter- tional 2009, was held in San Diego, California, USA, July 19–24, 2009, jointly with the Symposium on Human Interface (Japan) 2009, the 8th International Conference on Engineering Psychology and Cognitive Ergonomics, the 5th International Conference on Universal Access in Human–Computer Interaction, the Third International Conf- ence on Virtual and Mixed Reality, the Third International Conference on Internati- alization, Design and Global Development, the Third International Conference on Online Communities and Social Computing, the 5th International Conference on Augmented Cognition, the Second International Conference on Digital Human Mod- ing, and the First International Conference on Human Centered Design. A total of 4,348 individuals from academia, research institutes, industry and gove- mental agencies from 73 countries submitted contributions, and 1,397 papers that were judged to be of high scientific quality were included in the program. These papers - dress the latest research and development efforts and highlight the human aspects of design and use of computing systems. The papers accepted for presentation thoroughly cover the entire field of human–computer interaction, addressing major advances in the knowledge and effective use of computers in a variety of application areas.

This volume presents a state-of-the-art of current research on the role of eye gaze in different types of interaction, including human-human and human-computer interaction. Approaching the phenomenon from different disciplinary and methodological angles, the chapters in the volume are united through a shared technological approach, viz. the use of eye-tracking technology for measuring speakers’ and hearers’ eye gaze patterns while engaged in interaction. Envisioned as an ‘innovating reader’, the volume addresses key questions of interdisciplinary relevance (e.g. to what extent can the analysis of fine-grained eye gaze data, obtained with eye-tracking technology, inform conversation analysis, and vice versa?), positioning (e.g. what is the semiotic status of eye gaze in relation to linguistic signaling?), and methodology (e.g. can we strike a balance between experimental control and authenticity in setting up dialogue settings with eye-tracking technology?). The exploration of these and other questions contributes to the demarcation of a burgeoning research program.

The four LNCS volume set 9175-9178 constitutes the refereed proceedings of the 9th International Conference on Learning and Collaboration Technologies, UAHCI 2015, held as part of the 17th International Conference on Human-Computer Interaction, HCII 2015, in Los Angeles, CA, USA in August 2015, jointly with 15 other thematically similar conferences. The total of 1462 papers and 246 posters presented at the HCII 2015 conferences were carefully reviewed and selected from 4843 submissions. These papers of the four volume set address the following major topics: LNCS 9175, Universal Access in Human-Computer Interaction: Access to today's technologies (Part I), addressing the following major topics: LNCS 9175: Design and evaluation methods and tools for universal access, universal access to the web, universal access to mobile interaction, universal access to information, communication and media. LNCS 9176: Gesture-based interaction, touch-based and haptic Interaction, visual and multisensory experience, sign language technologies, and smart and assistive environments LNCS 9177: Universal Access to Education, universal access to health applications and services, games for learning and therapy and cognitive disabilities and cognitive support and LNCS 9178: Universal access to culture, orientation, navigation and driving, accessible security and voting, universal access to the built environment and ergonomics and universal access.

This book constitutes the thoroughly refereed post-proceedings of the seven workshops and the PhD Symposium that were co-located with the 13th International Conference on Web Engineering, ICWE 2013, held in Aalborg, Denmark, in July 2013. The papers cover research in topics such as social data management; cloud service engineering; agile web development and quality management in web engineering.

As lifestyles in personal and public spheres become more fast-paced and hectic, the need for reliable mobile technologies becomes increasingly important. Insights into the various impacts of mobile applications pave the way for future advances and developments in communication and interaction. Critical Socio-Technical Issues Surrounding Mobile Computing is a pivotal reference source for research-based perspectives on the use and application of mobile technology in modern society. Featuring extensive research on a variety of topics relating to the social, technical, and behavioral perspectives of mobile applications, this book is an essential reference source for mobile application developers, instructors, practitioners, and students interested in current research on the impact of mobile devices on individuals and society as a whole.

The interaction between a user and a device forms the foundation of today’s application design. Covering the following topics: A suite of five structural principles helping designers to structure their mockups; An agile method for exploiting desktop eye tracker equipment in combination with mobile devices; An approach to explore large-scale collections based on classification systems; A framework based on the use of modeling and components composition techniques to simplify the development of organizational collaborative systems; A low-cost virtual reality system that provides highly satisfying virtual experiences; Popular hardware and software tools and technologies for developing augmented and virtual reality applications; An implementation to handle connectivity between virtual reality applications and SensAble® Technology Phantom Haptic Devices; The results of a research study implementing a teaching technological strategy

to help Down syndrome children develop their reading skills; Platform independent models decreasing the level of cohesion between communication technologies and software for ubiquitous computing; A method for applying gamification as a tool to improve the participation and motivation of people in performing different tasks. New Trends in Interaction, Virtual Reality and Modeling collects the best research from Interacción 2012 and MexIHC 2012, and presents the state-of-the-art in human-computer interaction, user interfaces, user experience and virtual reality. Written by researchers from leading universities, research institutes and industry, this volume forms a valuable source of reference for researchers in HCI and VR.

Despite the ever-increasing interest in eye tracking, there is still no comprehensive work on the potential and applications of table-mounted and mobile head-mounted eye tracking solutions in travel and tourism. This volume bridges that gap, effectively linking eye tracking with travel and tourism. It presents, on the one hand, novel academic contributions on the concept of eye tracking, and on the other, practice-oriented case studies that illustrate the use and strategic value of eye tracking in travel and tourism. It provides concrete and novel insights into tourist behavior and the tourist consumer experience and, for the academic community, offers a comprehensive, scientifically based overview of the empirical, methodological, theoretical, and practical contributions of eye tracking research. Accordingly, the book will be of value to a diverse audience. It will be a useful resource for existing and future tourism businesses, allowing them to adopt proactive approaches in the design of tourism products. It will also stimulate further research in the field and inspire scholars and practitioners to combine their ideas and expertise, to look beyond supposedly fixed horizons, and to identify emerging opportunities.

Digital classrooms have become a common addition to curriculums in higher education; however, such learning systems are only successful if students are properly motivated to learn. Optimizing Student Engagement in Online Learning Environments is a critical scholarly resource that examines the importance of motivation in digital classrooms and outlines methods to reengage learners. Featuring coverage on a broad range of topics such as motivational strategies, learning assessment, and student involvement, this book is geared toward academicians, researchers, and students seeking current research on the importance of maintaining ambition among learners in digital classrooms.

Current Trends in Eye Tracking ResearchSpringer Science & Business Media

Provides a detailed overview of the research exploring a wide range of ideas, theories, and practices around written text production. This book deals with issues around the development of basic ('low-level') writing skills, mainly in the early years of education. It also focuses directly on issues around the teaching and learning of writing.

This state-of-the-art resource brings together the most innovative scholars and thinkers in the field of testing to capture the changing conceptual, methodological, and applied landscape of cognitively-grounded educational assessments. Offers a methodologically-rigorous review of cognitive and learning sciences models for testing purposes, as well as the latest statistical and technological know-how for designing, scoring, and interpreting results Written by an international team of contributors at the cutting-edge of cognitive psychology and educational measurement under the editorship of a research director at the Educational Testing Service and an esteemed professor of educational psychology at the University of Alberta as well as supported by an expert advisory board Covers conceptual frameworks, modern methodologies, and applied topics, in a style and at a level of technical detail that will appeal to a wide range of readers from both applied and scientific backgrounds Considers emerging topics in cognitively-grounded assessment, including applications of emerging socio-cognitive models, cognitive models for human and automated scoring, and various innovative virtual performance assessments

This eBook is a volume based on the “Eye Movements and Visual Cognition” Special Issue published in the journal Vision by MDPI and edited by Raymond Klein and Simon Liversedge. The eBook comprises 19 high-quality chapters that are original and topical works by leading academic figures in the field of human vision and visual cognition. In putting together the book, we aimed to provide an informative body of work to stimulate and foster useful intellectual exchange between individuals working on basic theoretical issues as well as on more applied aspects of vision and cognitive science. From the outset, we sought papers that provide concise and astute reviews of topics within this broad field. The present volume includes reviews that are narrative (critiquing and summarizing research on a topic), tutorial (with a focus on methods and findings), empirical (e.g., meta-analytic), and theoretically synthetic. The eBook also features chapters with new empirical content that resolves an undecided issue stemming from an evaluation of the literature. Finally, where possible, we also selected papers that bridge theoretical and applied issues and provide insight into behavior and its neural substrate. All chapters were subject to peer review and went through several rounds of revision prior to acceptance.

This book includes papers from the section “Multisensor Information Fusion”, from Sensors between 2018 to 2019. It focuses on the latest research results of current multi-sensor fusion technologies and represents the latest research trends, including traditional information fusion technologies, estimation and filtering, and the latest research, artificial intelligence involving deep learning.

Experience in translation does not always correlate with the quality of the target text. Also, the evaluations of translation work vary considerably among evaluators. Why not shifting the focus of attention from the final translation to the underlying translation process when assessing translation competence? Iryna Kloster applies a multi-method approach to model the translation competence based on empirical parameters, such as gaze behavior, dictionary use, revisions as well as subjective evaluations of comprehension and translation difficulty. Eye tracking, keystroke logging, screen recording and retrospective interviews were applied to collect data in the experimental groups consisting of novice and semi-professional translators. As a consequence, the author suggests using language contrasts for researching translation competence. She draws conclusions based on hypotheses testing, provides justification by triangulating quantitative and qualitative data and discusses the results in the light of empirical translation studies as well.

Understanding and developing expertise is an important concern for any researcher or practitioner working in elite or high performance sport. Whether it's identifying talented young athletes or developing methods for integrating cutting-edge sport science into daily coaching practice, scientists, coaches and researchers all need to understand the skills, characteristics, and knowledge that distinguish the expert performer in sport. The Routledge Handbook of Sport Expertise is the first book to offer a comprehensive overview of current research and practice in the emerging field of sports expertise. Adopting a multi-disciplinary, multi-faceted approach, the book offers in-depth discussion of methodological and philosophical issues in sport expertise, as well as the characteristics that describe sporting ‘experts’ and how they can be facilitated and developed. Exploring research, theory and practice, the book also examines how scientists and practitioners can work together to improve the delivery of applied sport science. With contributions from many of the world’s leading researchers in expertise and skill acquisition in sport, the Routledge Handbook of Sport Expertise is important reading for any advanced student, researcher, coach or sport science support officer looking to better understand this cutting-edge topic.