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KEY=EDUCATION - KENDRICK YOSEF

ARTIFICIAL INTELLIGENCE AND INCLUSIVE EDUCATION

SPECULATIVE FUTURES AND EMERGING PRACTICES

Springer This book brings together the fields of artificial intelligence (often known as A.I.) and inclusive education in order to speculate on the future of teaching and learning in increasingly diverse social, cultural, emotional, and linguistic educational contexts. This book addresses a pressing need to understand how future educational practices can promote equity and equality, while at the same time adopting A.I. systems that are oriented towards automation, standardisation and efficiency. The contributions in this edited volume appeal to scholars and students with an interest in forming a critical understanding of the development of A.I. for education, as well as an interest in how the processes of inclusive education might be shaped by future technologies. Grounded in theoretical engagement, establishing key challenges for future practice, and outlining the latest research, this book offers a comprehensive overview of the complex issues arising from the convergence of A.I. technologies and the necessity of developing inclusive teaching and learning. To date, there has been little in the way of direct association between research and practice in these domains: A.I. has been a predominantly technical field of research and development, and while intelligent computer systems and ‘smart’ software are being increasingly applied in many areas of industry, economics, social life, and education itself, a specific engagement with the agenda of inclusion appears lacking. Although such technology offers exciting possibilities for education, including software that is designed to ‘personalise’ learning or adapt to learner behaviours, these developments are accompanied by growing concerns about the in-built biases involved in machine learning techniques driven by ‘big data’.

AI AND EDUCATION

A GUIDANCE FOR POLICYMAKERS

UNESCO Publishing Artificial Intelligence (AI) has the potential to address some of the biggest challenges in education today, innovate teaching and learning practices, and ultimately accelerate the progress towards SDG 4. However, these rapid technological developments inevitably bring multiple risks and challenges, which have so far outpaced policy debates and regulatory frameworks. This publication offers guidance for policy-makers on how best to leverage the opportunities and address the risks, presented by the growing connection between AI and education. It starts with the essentials of AI: definitions, techniques and technologies. It continues with a detailed analysis of the emerging trends and implications of AI for teaching and learning, including how we can ensure the ethical, inclusive and equitable use of AI in education, how education can prepare humans to live and work with AI, and how AI can be applied to enhance education. It finally introduces the challenges of harnessing AI to achieve SDG 4 and offers concrete actionable recommendations for policy-makers to plan policies and programmes for local contexts. [Publisher summary, ed]

TECHNOLOGIES FOR INCLUSIVE EDUCATION: BEYOND TRADITIONAL INTEGRATION APPROACHES

BEYOND TRADITIONAL INTEGRATION APPROACHES

IGI Global By providing students with the opportunities to receive a high quality education regardless of their social or cultural background, inclusive education is a new area that goes beyond traditional integration approaches. These approaches hope to provide the educative system with the ability to adapt to the diversity of its students. Technologies for Inclusive Education: Beyond Traditional Integration Approaches introduces the basic concepts, current research guidelines and future perspectives on the current state of these approaches. This book aims to make inclusive education a reality in the future by highlighting technological advances in applied e-learning, cognitive learning and education multimedia. Novel approaches to human-computer interaction are essential to make these contents available for every student regardless of their disabilities and learning styles.

INCLUSIVE EDUCATION IS A RIGHT, RIGHT?

BRILL Seeks to engage with researchers, students, education professionals, leaders, advocacy organisations, and people experiencing exclusion to consider human rights in relation to inclusive education.

RADICAL SOLUTIONS FOR DIGITAL TRANSFORMATION IN LATIN AMERICAN UNIVERSITIES

ARTIFICIAL INTELLIGENCE AND TECHNOLOGY 4.0 IN HIGHER EDUCATION

Springer Nature This book presents how Digital Transformation is a requirement to upgrade Latin American universities to a next level in management, lecturing and learning processes and strategies. The book starts with a thorough introduction of the Latin American context addressing the three main topics in the book: Digital Transformation, Higher Education and Artificial Intelligence & Industry 4.0. They will be depicted by region, with a clear distribution between Central America & Mexico, Comunidad Andina (Perú, Colombia, Chile, Ecuador, Bolivia), Mercosur (Argentina, Brasil, Paraguay and Uruguay), and other countries. The book also shows how online learning is a key part of the transformation, with a clear focus on learning management systems, innovation and learning analytics. Further, personalised services for every single profile at the university (students, lecturers, academic managers) are presented to guarantee inclusive education service aggregation for networked campuses. Following, the book addresses strategy and overall services that concentrate on sustainability and revenue models integrated with a strategic planning. Finally a set of chapters will show specific experiences and case studies of direct application of Artificial Intelligence and Technology 4.0, where the readers can learn from and transfer directly into their educational contexts.

OECD DIGITAL EDUCATION OUTLOOK 2021 PUSHING THE FRONTIERS WITH ARTIFICIAL INTELLIGENCE, BLOCKCHAIN AND ROBOTS

PUSHING THE FRONTIERS WITH ARTIFICIAL INTELLIGENCE, BLOCKCHAIN AND ROBOTS

OECD Publishing How might digital technology and notably smart technologies based on artificial intelligence (AI), learning analytics, robotics, and others transform education? This book explores such question. It focuses on how smart technologies currently change education in the classroom and the management of educational organisations and systems.

THE ETHICS OF ARTIFICIAL INTELLIGENCE IN EDUCATION

PRACTICES, CHALLENGES, AND DEBATES

Taylor & Francis *The Ethics of Artificial Intelligence in Education* identifies and confronts key ethical issues generated over years of AI research, development, and deployment in learning contexts. Adaptive, automated, and data-driven education systems are increasingly being implemented in universities, schools, and corporate training worldwide, but the ethical consequences of engaging with these technologies remain unexplored. Featuring expert perspectives from inside and outside the AIED scholarly community, this book provides AI researchers, learning scientists, educational technologists, and others with questions, frameworks, guidelines, policies, and regulations to ensure the positive impact of artificial intelligence in learning.

REVOLUTIONIZING EDUCATION IN THE AGE OF AI AND MACHINE LEARNING

IGI Global Artificial Intelligence (AI) serves as a catalyst for transformation in the field of digital teaching and learning by introducing novel solutions to revolutionize all dimensions of the educational process, leading to individualized learning experiences, teachers playing a greater role as mentors, and the automation of all administrative processes linked to education. AI and machine learning are already contributing to and are expected to improve the quality of the educational process by providing advantages such as personalized and interactive tutoring with the ability to adjust the content and the learning pace of each individual student while assessing their performance and providing feedback. These shifts in the educational paradigm have a profound impact on the quality and the way we live, interact with each other, and define our values. Thus, there is a need for an earnest inquiry into the cultural repercussions of this phenomenon that extends beyond superficial analyses of AI-based applications in education. *Revolutionizing Education in the Age of AI and Machine Learning* addresses the need for a scholarly exploration of the cultural and social impacts of the rapid expansion of artificial intelligence in the field of education including potential consequences these impacts could have on culture, social relations, and values. The content within this publication covers such topics as AI and tutoring, role of teachers, physical education and sports, interactive E-learning and virtual laboratories, adaptive curricula development, support critical thinking, and augmented intelligence and it is designed for educators, curriculum developers, instructional designers, educational software developers, education consultants, academicians, administrators, researchers, and professionals.

HANDBOOK OF RESEARCH ON TEACHING WITH VIRTUAL ENVIRONMENTS AND AI

IGI Global The increasingly pervasive use of digital technology has catapulted society into an interconnected world where the natural boundaries between humankind and machine, virtual and real, individual and community have become less perceptible. As individuals interact with different digital technologies, they must build a digital intelligence, which must be further cultivated as it is a key competency for the future of school and work. Digital intelligence includes understanding the mutual strengths between people and technology, as well as developing an awareness in the use of digital tools in order to avoid common threats such as cyberbullying, addiction to video games, techno-stress, and more. As adolescents continue to engage with virtual reality and 3D virtual worlds where the online and offline overlap and coincide, it is important to build this intelligence as well as utilize these technologies to promote successful learning. The *Handbook of Research on Teaching With Virtual Environments and AI* explores the new personalized educational opportunities that are available with digital technology and virtual environments that can be used within education. This book focuses on the use of these tools and how to navigate the use of new technologies such as AI and virtual environments for educational practices. While highlighting topics such as virtual worlds, game-based learning, intelligent tutoring, augmented reality, and more, this book is ideal for teachers, administrators, technologists, educational software developers, IT specialists, practitioners, researchers, academicians, and students interested in how virtual environments and AI are being implemented in teaching practices.

ECIAIR 2019 EUROPEAN CONFERENCE ON THE IMPACT OF ARTIFICIAL INTELLIGENCE AND ROBOTICS

Academic Conferences and publishing limited

MACHINE LEARNING AND INTERNET OF THINGS FOR SOCIETAL ISSUES

Springer Nature This book highlights recent advance in the area of Machine Learning and IoT, and their applications to solve societal issues/problems or useful for various users in the society. It is known that many smart devices are interconnected and the data generated is being analyzed and processed with machine learning models for prediction, classification, etc., to solve human needs in various sectors like health, road safety, agriculture, and education. This contributed book puts together chapters concerning the use of intelligent techniques in various aspects related to the IoT domain from protocols to applications, to give the reader an up-to-date picture of the state-of-the-art on the connection between computational intelligence, machine learning, and IoT.

HANDBOOK OF RESEARCH ON ARTIFICIAL INTELLIGENCE IN GOVERNMENT PRACTICES AND PROCESSES

IGI Global In today's global culture where the internet has established itself as a main tool of communication, the global system of economy and regulations, as well as data and decisions based on data analysis, have become essential for public actors and institutions. Governments need to be updated and use the latest technologies to understand what society's demands are, and user behavioral data, which can be pulled by intelligent applications, can offer tremendous insights into this. The *Handbook of Research on Artificial Intelligence in Government Practices and Processes* identifies definitional perspectives of behavioral data science and what its use by governments means for automation, predictability, and risks to privacy and free decision making in society. Many governments can train their algorithms to work with machine learning, leading to the capacity to interfere in the behavior of society and potentially achieve a change in societal behavior without society itself even being aware of it. As such, the use of artificial intelligence by governments has raised concerns about privacy and personal security issues. Covering topics such as digital democracy, data extraction techniques, and political communications, this book is an essential resource for data analysts, politicians, journalists, public figures, executives, researchers, data specialists, communication specialists, digital marketers, and academicians.

INCLUSIVE EDUCATION IS A RIGHT, RIGHT?

Studies in Inclusive Education Copyright page --Figures and Tables --Notes on Contributors --Chapter 1 More Than Human Rights /Matthew Krehl Edward Thomas, Leechin Heng, and Peter Walker --Chapter 2 A Posthumanist Critique of Human Rights /Michalinos Zembylas --Chapter 3 Online Open Education and Social Justice /Sarah Lambert --Chapter 4 Risks in Time /Ben Whitburn and Matthew Krehl Edward Thomas --Chapter 5 Youth Justice, Educational Exclusion and Moral Panic /Philippa Moylan, Julie White, Tim Corcoran, Kitty te Riele, and Alison Baker --Chapter 6 Herding Cats /Jennie Duke and Andrew Riordan --Chapter 7 An Exploration of One Initial Teacher Education (ITE) Programs Attempt to Transform How Inclusion Is Understood and Practiced /Leechin Heng --Chapter 8 Phenomenological Learning in the Northern Territory /Scott Welsh and Mia Nosrat --Chapter 9 Old Ideas, New Withdrawal Rooms /Peter Walker --Chapter 10 Encountering Diversity /Jo Raphael, Joanne OMara, Ben Whitburn, Edwin Creely, Kate Anderson, and Julianne Moss --Chapter 11 Opportunities for Inclusive Practice /Bethany M. Rice --Chapter 12 We Appreciate the Efforts, But Is This Enough? /Amathullah Shakeeb, Ben Whitburn, and Anna Kilderry --Chapter 13 Reading Rights /Bec Marland --Chapter 14 Relational Power and Communication /Peng-Sim Eng, Tim Corcoran, and Ben Whitburn --Chapter 15 Artificial Intelligence, Neoliberalism and Human Rights /Matthew Krehl Edward Thomas, Leechin Heng, and Peter Walker --Chapter 16 After Words? /Roger Slee --Index.

ARTIFICIAL INTELLIGENCE IN HIGHWAY SAFETY

CRC Press *Artificial Intelligence in Highway Safety* provides cutting-edge advances in highway safety using AI. The author is a highway safety expert. He pursues highway safety within its contexts, while drawing attention to the predictive powers of AI techniques in solving complex problems for safety improvement. This book provides both theoretical and practical aspects of highway safety. Each chapter contains theory and its contexts in plain language with several real-life examples. It is suitable for anyone interested in highway safety and AI and it provides an illuminating and accessible introduction to this fast-growing research trend. Material supplementing the book can be found at https://github.com/subasish/AI_in_HighwaySafety. It offers a variety of supplemental materials, including data sets and R codes.

HANDBOOK OF RESEARCH ON CRITICAL ISSUES IN SPECIAL EDUCATION FOR SCHOOL REHABILITATION PRACTICES

IGI Global Rehabilitation professionals working with students with disabilities and the families of those students face unique challenges in providing inclusive services to special education student populations. There needs to be a focus on adaptive teaching methods that provide quality experience for students with varying disabilities to promote student success and inclusivity. Critical issues within these practices span autism, diverse students, gifted education, learning disabilities, behavioral and emotional disorders, and more. With having many different types of students with vastly different situations, it is important for rehabilitation professionals to understand the best practices and learning systems for special education students who have a wide range of needs and challenges. The *Handbook of Research on Critical Issues in Special Education for School Rehabilitation Practices* focuses on the issues and challenges rehabilitation professionals face in special education and how they can provide inclusive and effective services to diverse student populations. This book highlights topics such as culturally responsive teacher preparation, artificial intelligence in the classroom, universal design, inclusive development, and school rehabilitation and explores the effects these newfound practices in education have on various types of students with disabilities. This book is essential for special education teachers, administrators, counselors, practitioners, researchers, academicians, and students interested in the new methods, theories, and solutions for the best practices in inclusive and effective special education.

PREPARING PRE-SERVICE TEACHERS TO INTEGRATE TECHNOLOGY IN K-12 CLASSROOMS: STANDARDS AND BEST PRACTICES

STANDARDS AND BEST PRACTICES

IGI Global With the evolving technologies available to educators and the increased importance of including technologies in the classroom, it is critical for instructors to understand how to successfully utilize these emerging technologies within their curriculum. To ensure they are prepared, further study on the best practices and challenges of implementation is required. Preparing Pre-Service Teachers to Integrate Technology in K-12 Classrooms: Standards and Best Practices focuses on preparing future teachers to integrate technology into their everyday teaching by providing a compilation of current research surrounding the inclusion and utilization of technology as an educational tool. Covering key topics such as digital assessment, flipped classrooms, technology integration, and artificial intelligence, this reference work is ideal for teacher educators, administrators, stakeholders, researchers, academicians, scholars, practitioners, instructors, and students.

REVOLUTIONIZING INDIAN EDUCATION SYSTEM

Archers & Elevators Publishing House

CULTURE AND COMPUTING. DESIGN THINKING AND CULTURAL COMPUTING

9TH INTERNATIONAL CONFERENCE, C&C 2021, HELD AS PART OF THE 23RD HCI INTERNATIONAL CONFERENCE, HCII 2021, VIRTUAL EVENT, JULY 24-29, 2021, PROCEEDINGS, PART II

Springer Nature The two-volume set LNCS 12794-12795 constitutes the refereed proceedings of the 9th International Conference on Culture and Computing, C&C 2021, which was held as part of HCI International 2021 and took place virtually during July 24-29, 2021. The total of 1276 papers and 241 posters included in the 39 HCII 2021 proceedings volumes was carefully reviewed and selected from 5222 submissions. The papers included in the HCII-C&C volume set were organized in topical sections as follows: Part I: ICT for cultural heritage; technology and art; visitors' experiences in digital culture; Part II: Design thinking in cultural contexts; digital humanities, new media and culture; perspectives on cultural computing.

BUILDING SUSTAINABLE CITIES

SOCIAL, ECONOMIC AND ENVIRONMENTAL FACTORS

Springer Nature This book describes a broad view of sustainability as a crucial factor for the success of its implementation. Not only the environmental aspects of the sustainable cities' development are reviewed but the economic and social aspects of it, as highlighted in the UN Sustainable Development Goal 11 (make cities and human settlements inclusive, safe, resilient and sustainable). Nowadays, researchers, students, and stakeholders are highly involved in sustainability issues. Because of this, they need a guiding document to help them develop and implement sustainability programs at the level of companies and institutions. In this book, the authors discuss and explain basic concepts of sustainability-related to social, economic and environmental aspects, as well as strategies for its implementation.

FOSTERING COMMUNICATION AND LEARNING WITH UNDERUTILIZED TECHNOLOGIES IN HIGHER EDUCATION

IGI Global Higher education is undergoing radical changes with the arrival of emerging technology that can facilitate better teaching and learning experiences. However, with a lack of technical awareness, technophobia, and security and trust issues, there are several barriers to the uptake of emerging technologies. As a result, many of these new technologies have been overlooked or underutilized. In the information systems and higher education domains, there exists a need to explore underutilized technologies in higher education that can foster communication and learning. Fostering Communication and Learning With Underutilized Technologies in Higher Education is a critical reference source that provides contemporary theories in the area of technology-driven communication and learning in higher education. The book offers new knowledge about educational technologies and explores such themes as artificial intelligence, digital learning platforms, gamification tools, and interactive exhibits. The target audience includes researchers, academicians, practitioners, and students who are working or have a keen interest in information systems, learning technologies, and technology-led teaching and learning. Moreover, the book provides an understanding and support to higher education practitioners, faculty, educational board members, technology vendors and firms, and the Ministry of Education.

ARTIFICIAL INTELLIGENCE APPLICATIONS IN DISTANCE EDUCATION

IGI Global "This book seeks to examine the efforts made to bridge the gap between student and educator with computer applications through an in-depth discussion of applications employed to overcome the problems encountered during educational processes"--Provided by publisher.

MOVING TOWARDS INCLUSIVE EDUCATION

DIVERSE NATIONAL ENGAGEMENTS WITH PARADOXES OF POLICY AND PRACTICE

BRILL Lise Claiborne and Vishalache Balakrishnan share views of educators and policy-makers from Asia-Pacific and Europe that have seldom been heard in international debates on inclusion.

APPLICATIONS OF MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE IN EDUCATION

Information Science Reference Focuses on the parameters of remote learning, machine learning, deep learning, and artificial intelligence under 21st-century learning and instructional contexts. Topics covered include data coding and social networking technology.

PEDAGOGICAL RESPONSIVENESS IN COMPLEX CONTEXTS

ISSUES OF TRANSFORMATION, INCLUSION AND EQUITY

Springer Nature This book reflects a range of pedagogical responses to increasingly complex educational contexts. It finds this complexity in the interplay of a number of factors, including the diverse histories and identities of educational actors; institutional and systemic demands and constraints; competing conceptions of valued knowledge; and technological change. The chapters show the demand for pedagogical response to unexpected and unprecedented events (like COVID-19) and the importance of addressing barriers to access that become sedimented into institutional cultures. The authors, mostly from Global South contexts, are concerned with enabling educational access and inclusion in the face of competing global and local demands. They present new knowledge about pedagogical approaches that are relevant and effective in uncertain times and challenging places. Together, the contributors offer accounts of hope-full and innovative practice and conceptually rigorous engagement with fundamental issues of learning and teaching.

HANDBOOK OF RESEARCH ON CRITICAL ISSUES IN SPECIAL EDUCATION FOR SCHOOL REHABILITATION PRACTICES

Information Science Reference "This book is for rehabilitation professionals in the field of special education to help them develop adaptive teaching methods to provide quality experiences for students with varied disabilities to promote success for as many of these students as possible for inclusive society"--

HANDBOOK ON INTELLIGENT TECHNIQUES IN THE EDUCATIONAL PROCESS

VOL 1 RECENT ADVANCES AND CASE STUDIES

Springer Nature Education has a substantial impact and influences on almost all sectors in modern society. Different computer-supported educational systems have been developing for many decades to support and make easier teaching and learning processes on all levels of education. Influences of rapid development of Information Communication Technologies and other related disciplines on design and implementation of intelligent, sophisticated educational systems are evident. Nowadays intensive development and wide applications of Artificial Intelligent techniques significantly affect the development of intelligent tutoring systems, smart learning environments that incorporate virtual and augmented reality and robots. Artificial Intelligence has the potential to address some of the biggest challenges in education today, but also in the future in order to establish innovative teaching and learning practices facilitated by powerful educational datamining and learning analytics. This book presents a collection of 17 chapters that bring interesting aspects of the state-of-the-art of application of intelligent techniques in different educational processes and settings. We believe that the works presented in the book will be of great interest to readers and that will motivate them to try to enhance presented approaches and propose better and more advanced solutions.

HANDBOOK OF RESEARCH ON CLASSROOM DIVERSITY AND INCLUSIVE EDUCATION PRACTICE

IGI Global As classrooms are becoming more diverse, teachers are now faced with the responsibility of creating an inclusive classroom community. As such, researching classroom pedagogies and practices is an imperative step in curriculum planning. The Handbook of Research on Classroom Diversity and Inclusive Education Practice is an authoritative reference source for the latest scholarly research on ways to effectively teach all students and further refine and strengthen school-wide inclusive pedagogy, methods, and policies. Featuring extensive coverage on a number of topics such as special education, online learning, and English language learners, this publication is ideally designed for professionals, educators, and policy makers seeking current research on methods that ensure all students have equal access to curricular content and the chance for growth and success.

INTERNATIONAL PERSPECTIVES ON EDUCATIONAL DIVERSITY AND INCLUSION

STUDIES FROM AMERICA, EUROPE AND INDIA

Routledge In light of new theories of multiculturalism and globalization, this insightful book compares approaches to the educational inclusion of diverse minorities– such as the ethnic and linguistic minorities in America. Drawing on their extensive experience, the contributors examine: accounts from cross-cultural cognitive psychology on the special interests and educational needs of certain ethnic groups research on social class divisions, neighbourhood poverty and school exclusions in Britain educational developments for inclusion of minorities in Europe, Greece and Eastern Europe India's educational policies surrounding its struggle to achieve 'education for all' in a nation at the threshold of economic prosperity. This book is unique in its breadth, and scope of its integration of educational policy data generated by different countries, with contrasted minority populations, all at different stages of development.

SOCIOECONOMIC INCLUSION DURING AN ERA OF ONLINE EDUCATION

IGI Global The unwelcomed arrival of the COVID-19 pandemic has exacerbated inequities and inequalities in accessing educational opportunities among different social groups. Abruptly, the idea of inclusivity in education has become more of an abstract phenomenon that widens the digital divide and creates social injustice. The resulting intensification of digital disparities demands an immediate coordinated response from all education and government stakeholders to guarantee that no one is left behind as we navigate the so-called new normal. Without an appropriate intervention and sound policy guidance, negative repercussions may be so widespread that they will remain a problem in the education sector far into the future. Socioeconomic Inclusion During an Era of Online Education aims to answer emerging questions on inclusive online education by exploring and collating the experiences and lessons learned during the implementation of emergency remote education. With the earlier-than-expected arrival of the online education era, best practices and innovative approaches from various educational institutions are concrete paradigms for safeguarding the promise of an undivided future of learning through equal access to quality education from a distance. Covering topics from learning space to education governance, this reference work is ideal for policymakers, administrators, practitioners, researchers, scholars, instructors, and students seeking to adjust and adapt to technology-enabled education during and after the COVID-19 era.

TOWARDS INCLUSION IN EDUCATION: STATUS, TRENDS AND CHALLENGES

THE UNESCO SALAMANCA STATEMENT 25 YEARS ON

UNESCO Publishing

COMPUTERS HELPING PEOPLE WITH SPECIAL NEEDS

17TH INTERNATIONAL CONFERENCE, ICCHP 2020, LECCO, ITALY, SEPTEMBER 9-11, 2020, PROCEEDINGS, PART I

Springer Nature The two-volume set LNCS 12376 and 12377 constitutes the refereed proceedings of the 17th International Conference on Computers Helping People with Special Needs, ICCHP 2020, held in Lecco, Italy, in September 2020. The conference was held virtually due to the COVID-19 pandemic. The 104 papers presented were carefully reviewed and selected from 206 submissions. Included also are 13 introductions. The papers are organized in the following topical sections: Part I: user centred design and user participation in inclusive R&D; artificial intelligence, accessible and assistive technologies; XR accessibility – learning from the past, addressing real user needs and the technical architecture for inclusive immersive environments; serious and fun games; large-scale web accessibility observatories; accessible and inclusive digital publishing; AT and accessibility for blind and low vision users; Art Karshmer lectures in access to mathematics, science and engineering; tactile graphics and models for blind people and recognition of shapes by touch; and environmental sensing technologies for visual impairment Part II: accessibility of non-verbal communication: making spatial information accessible to people with disabilities; cognitive disabilities and accessibility – pushing the boundaries of inclusion using digital technologies and accessible eLearning environments; ICT to support inclusive education – universal learning design (ULD); hearing systems and accessories for people with hearing loss; mobile health and mobile rehabilitation for people with disabilities: current state, challenges and opportunities; innovation and implementation in the area of independent mobility through digital technologies; how to improve interaction with a text input system; human movement analysis for the design and evaluation of interactive systems and assistive devices; and service and care provision in assistive environments 10 chapters are available open access under a Creative Commons Attribution 4.0 International License via link.springer.com.

COMPUTERS HELPING PEOPLE WITH SPECIAL NEEDS

17TH INTERNATIONAL CONFERENCE, ICCHP 2020, LECCO, ITALY, SEPTEMBER 9-11, 2020, PROCEEDINGS, PART II

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CRACKING SOCIAL MOBILITY

HOW AI AND OTHER INNOVATIONS CAN HELP TO LEVEL THE PLAYING FIELD

Legend Press Ltd In the UK and most countries today, a person's life chances are unfairly influenced by their socio-economic circumstances at birth. This has led to societal divides that have become wider and more pronounced as a result of the Covid-19 pandemic. There is now heightened awareness that the current state of affairs is unacceptable. Innovative approaches are urgently needed in order to combat social immobility. Drawing upon the latest research, *Cracking Social Mobility* explores the factors that contribute to social immobility, and puts forward focused, innovative solutions. The book impresses upon readers that social mobility is a societal goal worth striving towards, and that societies can take strides in the right direction by harnessing the power of digital innovation. From democratizing the private tuition sector and enhancing the effectiveness of teaching and learning, to supporting inclusive recruitment practices, technologies can help to level the playing field. A heartfelt call to action, this book explores how this can be achieved. 'Cracking Social Mobility highlights the very-real urgency of this issue but also (thankfully) suggests some potential road maps for the future, the most important of which is technological innovation and – vitally – applying it to education in a way that is beneficial to all.' Lord David Puttnam 'This is an important and timely book... Tom Moule's arguments are urgent and compelling.' Geoff Barton 'AI offers real prospects for significant advance on social mobility for disadvantaged students, who have been insufficiently helped by conventional educational approaches. This book addresses a very important subject.' Sir Anthony Seldon 'For the sake of future generations, we cannot afford to ignore technology's potential to improve the delivery of teaching and learning in the classroom.' Rt Hon David Davis MP

AN INTRODUCTION TO ARTIFICIAL INTELLIGENCE IN EDUCATION

Springer Nature This book systematically reviews a broad range of cases in education that utilize cutting-edge AI technologies. Furthermore, it introduces readers to the latest findings on the scope of AI in education, so as to inspire researchers from non-technological fields (e.g. education, psychology and neuroscience) to solve education problems using the latest AI techniques. It also showcases a number of established AI systems and products that have been employed for education. Lastly, the book discusses how AI can offer an enabling technology for critical aspects of education, typically including the learner, content, strategy, tools and environment, and what breakthroughs and advances the future holds. The book provides an essential resource for researchers, students and industrial practitioners interested and engaged in the fields of AI and education. It also offers a convenient handbook for non-professional readers who need a primer on AI in education, and who want to gain a deeper understanding of emerging trends in this domain.

ARTIFICIAL INTELLIGENCE IN EDUCATION

PROMISES AND IMPLICATIONS FOR TEACHING AND LEARNING

"The landscape for education has been rapidly changing in the last years: demographic changes affecting the makeup of families, multiple school options available to children, wealth disparities, the global economy demanding new skills from workers, and continued breakthroughs in technology are some of the factors impacting education. Given these changes, how can schools continue to prepare students for the future? In a world where information is readily available online, how can schools continue to be relevant? The emergence of Artificial Intelligence (AI) has exacerbated the need to have these conversations. Its impact on education and the multiple possibilities that it offers are putting pressure on educational leaders to reformulate the school curriculum and the channels to deliver it. The book "Artificial Intelligence in Education, Promises and Implications for Teaching and Learning" by the Center for Curriculum Redesign immerses the reader in a discussion on what to teach students in the era of AI and examines how AI is already demanding much needed updates to the school curriculum, including modernizing its content, focusing on core concepts, and embedding interdisciplinary themes and competencies with the end goal of making learning more enjoyable and useful in students' lives. The second part of the book dives into the history of AI in education, its techniques and applications -including the way AI can help teachers be more effective, and finishes on a reflection about the social aspects of AI. This book is a must-read for educators and policy-makers who want to prepare schools to face the uncertainties of the future and keep them relevant." --Amada Torres, VP, Studies, Insights, and Research, National Association of Independent School (NAIS) "The rapid advances in technology in recent decades have already brought about substantial changes in education, opening up new opportunities to teach and learn anywhere anytime and providing new tools and methods to improve learning outcomes and support innovative teaching and learning. Research into artificial intelligence and machine learning in education goes back to the late 1970s. Artificial intelligence methods were generally employed in two ways: to design and facilitate interactive learning environments that would support learning by doing, and to design and implement tutoring systems by adapting instructions with respect to the students' knowledge state. But this is just the beginning. As Artificial Intelligence in Education shows, AI is increasingly used in education and learning contexts. The collision of three areas - data, computation and education - is set to have far-reaching consequences, raising fundamental questions about the nature of education: what is taught and how it is taught. Artificial Intelligence in Education is an important, if at times disturbing, contribution to the debate on AI and provides a detailed analysis on how it may affect the way teachers and students engage in education. The book describes how artificial intelligence may impact on curriculum design, on the individualisation of learning, and on assessment, offering some tantalising glimpses into the future (the end of exams, your very own lifelong learning companion) while not falling victim to tech-hype. The enormous ethical, technical and pedagogical challenges ahead are spelt out, and there is a real risk that the rapid advances in artificial intelligence products and services will outstrip education systems' capacity to understand, manage and integrate them appropriately. As the book concludes: "We can either leave it to others (the computer scientists, AI engineers and big tech companies) to decide how artificial intelligence in education unfolds, or we can engage in productive dialogue." I commend this book to anyone concerned with the future of education in a digital world." --Marc Durando, Executive Director, European Schoolnet

APPLICATION OF INTELLIGENT SYSTEMS IN MULTI-MODAL INFORMATION ANALYTICS

2021 INTERNATIONAL CONFERENCE ON MULTI-MODAL INFORMATION ANALYTICS (MMIA 2021), VOLUME 2

Springer Nature This book provides comprehensive coverage of the latest advances and trends in information technology, science and engineering. Specifically, it addresses a number of broad themes, including multi-modal informatics, data mining, agent-based and multi-agent systems for health and education informatics, which inspire the development of intelligent information technologies. The contributions cover a wide range of topics such as AI applications and innovations in health and education informatics; data and knowledge management; multi-modal application management; and web/social media mining for multi-modal informatics. Outlining promising future research directions, the book is a valuable resource for students, researchers and professionals, and a useful reference guide for newcomers to the field. This book is a compilation of the papers presented in the 2021 International Conference on Multi-modal Information Analytics, held in Huhehaote, China, on April 23-24, 2021.

INCLUSIVE LEARNING 365

EDTECH STRATEGIES FOR EVERY DAY OF THE YEAR

International Society for Technology in Education Designed to be read one day – and page – at a time, this book from four inclusive learning experts offers 365 strategies for implementing technology to design inclusive experiences. Educators across the world are working to design individualized instruction that empowers every student to become experts at learning. Technology and instructional interventions designed to support students with disabilities often eventually become mainstream and used by the masses. These practices provide a pathway for designing inclusive, equitable and accessible educational experiences that meet the needs of every individual learner. This engaging book includes daily strategies accompanied by examples of tools that can be implemented immediately to design meaningful instruction. Topics covered include role-playing games for social-emotional learning, building literacy through captioned video, coding to teach early literacy, text-to-speech for math and reading, and much more! Each daily strategy includes: • Explanation of how to use the strategy to design inclusive educational experiences. • Examples of tools that can be used to implement the strategy. • Alternative ways to use the strategy to extend student learning. • Images illustrating the strategy or tool. • Identification of relevant ISTE Standards for Educators and ISTE Standards for Students. Related resources. The heart of the book is the shift in mindset that occurs by exploring a different practical, inclusive strategy each day and infusing these strategies into everyday practice.

ARTIFICIAL INTELLIGENCE JOURNALISM

THE 4IR AND MEDIA RESTRUCTURING

دار بدائل للنشر و التوزيع

2021 4TH INTERNATIONAL CONFERENCE ON INCLUSIVE TECHNOLOGY AND EDUCATION (CONTIE)

CONTIE is a conference organized by the Ibero American Network of Inclusive Technologies and Education (ritie.org) At CONTIE we focus on being a means of publishing and disseminating the advances and inclusive technological developments applied to education These researches are intended to be a bridge between technology, education and people with disabilities so that they serve to improve living conditions The topics of interest, not the only ones, focus on human computer interaction, usability and accessibility standards, artificial intelligence, e learning technologies, software engineering, and inclusive good practices

RETHINKING INCLUSION AND TRANSFORMATION IN SPECIAL EDUCATION

IGI Global Diversity creates a rich environment for ideas to evolve into new and more refined forms. This pedagogical approach can help students to appreciate and value all forms of diversity and enrich learning. There is a need for administrators in education to institute policies that will support diversity and inclusion within special education classrooms. Rethinking Inclusion and Transformation in Special Education explores the latest findings on how children learn by discussing global policies and educational practices, considering professional expectations, establishing parent relationships that enhance communication, creating an effective learning environment that meets all students' needs, and using technology wisely. Covering topics such as language development promotion, school leadership practices, and long-term skill support, this book is essential for special education teachers, diversity officers, school administrators, instructional designers, curriculum developers, academicians, researchers, and upper-level students.