Collective Intelligence And E Learning 20
Implications Of Web Based Communities And Networking

This two-volume set (LNAI 11683 and LNAI 11684) constitutes the refereed proceedings of the 11th International Conference on Computational Collective Intelligence, ICCCI 2019, held in Hendaye France, in September 2019. The 117 full papers presented were carefully reviewed and selected from 200 submissions. The papers are grouped in topical sections on: computational collective intelligence and natural language processing; machine learning in real-world data; distributed collective intelligence for smart manufacturing; collective intelligence for science and technology; intelligent management information systems; intelligent sustainable smart cities; new trends and challenges in education: the university 4.0; intelligent processing of multimedia in web systems; and big data streaming, applications and security.

The book focuses on Social Collective Intelligence, a term used to denote a class of socio-technical systems that combine, in a coordinated way, the strengths of humans, machines and collectives in terms of competences, knowledge and problem solving capabilities with the communication, computing and storage capabilities of advanced ICT. Social Collective Intelligence opens a number of challenges for researchers in both
computer science and social sciences; at the same time it provides an innovative approach to solve challenges in diverse application domains, ranging from health to education and organization of work. The book will provide a cohesive and holistic treatment of Social Collective Intelligence, including challenges emerging in various disciplines (computer science, sociology, ethics) and opportunities for innovating in various application areas. By going through the book the reader will gauge insight and knowledge into the challenges and opportunities provided by this new, exciting, field of investigation. Benefits for scientists will be in terms of accessing a comprehensive treatment of the open research challenges in a multidisciplinary perspective. Benefits for practitioners and applied researchers will be in terms of access to novel approaches to tackle relevant problems in their field. Benefits for policy-makers and public bodies representatives will be in terms of understanding how technological advances can support them in supporting the progress of society and economy.

This volume composes the proceedings of the Second International Conference on Computational Collective Intelligence—Technologies and Applications (ICCCI 2010), which was hosted by National Kaohsiung University of Applied Sciences and Wroclaw University of Technology, and was held in Kaohsiung City on November 10-12, 2010. ICCCI 2010 was technically co-sponsored by Shenzhen Graduate School of Harbin Institute of Technology, the Tainan Chapter of the IEEE Signal Processing Society, the Taiwan Association for Web Intelligence Consortium and the Taiwanese Association for
Consumer Electronics. It aimed to bring together researchers, engineers and policymakers to discuss the related techniques, to exchange research ideas, and to make friends. ICCCI 2010 focused on the following themes:

- Agent Theory and Application
- Cognitive Modeling of Agent Systems
- Computational Collective Intelligence
- Computer Vision
- Computational Intelligence
- Hybrid Systems
- Intelligent Image Processing
- Information Hiding
- Machine Learning
- Social Networks
- Web Intelligence and Interaction

The number of travelers along the information superhighway is increasing at a rate of 10 percent a month. How will this communications revolution affect our culture and society? Pierre Lévy shows how the unfettered exchange of ideas in cyberspace has the potential to liberate us from the social and political hierarchies that have stood in the way of mankind's advancement. Anthropologist, historian, sociologist, and philosopher, Lévy writes with a depth of scholarship and imaginative insight rare among media critics. At once a profound historical analysis of the development of human culture and a blueprint for the future, Collective Intelligence is a visionary work.

e-Learning Ecologies explores transformations in the patterns of pedagogy that accompany e-learning—the use of computing devices that mediate or supplement the relationships between learners and teachers—to present and assess learnable content, to provide spaces where students do their work, and to mediate peer-to-peer interactions. Written by the members of the "new learning" research group, this
textbook suggests that e-learning ecologies may play a key part in shifting the systems of modern education, even as technology itself is pedagogically neutral. The chapters in this book aim to create an analytical framework with which to differentiate those aspects of educational technology that reproduce old pedagogical relations from those that are genuinely innovative and generative of new kinds of learning. Featuring case studies from elementary schools, colleges, and universities on the practicalities of new learning environments, e-Learning Ecologies elucidates the role of new technologies of knowledge representation and communication in bringing about change to educational institutions.

This book focuses on organization and mechanisms of expert decision-making support using modern information and communication technologies, as well as information analysis and collective intelligence technologies (electronic expertise or simply e-expertise). Chapter 1 (E-Expertise) discusses the role of e-expertise in decision-making processes. The procedures of e-expertise are classified, their benefits and shortcomings are identified and the efficiency conditions are considered. Chapter 2 (Expert Technologies and Principles) provides a comprehensive overview of modern expert technologies. A special emphasis is placed on the specifics of e-expertise. Moreover, the authors study the feasibility and reasonability of employing well-known methods and approaches in e-expertise. Chapter 3 (E-Expertise: Organization and Technologies) describes some examples of up-to-date technologies to perform e-
expertise. Chapter 4 (Trust Networks and Competence Networks) deals with the problems of expert finding and grouping by information and communication technologies. Chapter 5 (Active Expertise) treats the problem of expertise stability against any strategic manipulation by experts or coordinators pursuing individual goals. The book addresses a wide range of readers interested in management, decision-making and expert activity in political, economic, social and industrial spheres. This book constitutes the proceedings of the Second International Conference on E-Learning, E-Education, and Online Training, eLEOT 2015, held in Novedrate, Italy, in September 2015. The 26 revised full papers presented were carefully reviewed and selected from 52 submissions. They focus on e-learning and distance education in science, technology, engineering and math. These transactions publish research in computer-based methods of computational collective intelligence (CCI) and their applications in a wide range of fields such as the semantic Web, social networks, and multi-agent systems. TCCI strives to cover new methodological, theoretical and practical aspects of CCI understood as the form of intelligence that emerges from the collaboration and competition of many individuals (artificial and/or natural). The application of multiple computational intelligence technologies, such as fuzzy systems, evolutionary computation, neural systems, consensus theory, etc., aims to support human and other collective intelligence and to create new forms of CCI in natural and/or artificial systems. This eighteenth issue
contains 9 carefully selected and revised contributions. Project Report from the year 2013 in the subject Business economics - Personnel and Organisation, grade: 1,0, University of Cooperative Education Stuttgart; Horb, language: English, abstract: Abstract This paper explores the practicable establishment of local Communities of Practice (CoP) on a virtual level to foster the augmentation of knowledge, sharing of practice and employee development. Communities of Practice have been identified as important sites of learning through creating and sharing knowledge within its social structures. The thesis examines how learning develops in this context and constitutes the basic theoretical attainment that is aligned to CoP. Furthermore, the paper reviews how technology can be introduced to reinforce communication and collaboration within the community. In order to build an understanding of how CoP create organizational value, the thesis not only focuses on the acknowledged learning theory models but also on the characteristics and benefits of those communities themselves as well as on virtual communities in general. Significant learning opportunities are identified within those communities, which are affirmed through a well-founded literature review on the topics “Learning Organizations”, “Web-based Learning” and “Development of a framework for Human Resource Development”. The review includes the identification of the HR-professional as a key player and stakeholder within the context of establishing a digitised CoP. The paper concludes with a navigator that has been evolved through merging the major findings of the literature analysis, the field research (expert-interviews) and personal contribution. Keywords – Community of Practice, Learning Theory, Knowledge Transfer, Digitised Community of Practice, Virtual Communities, Collaboration, Human Resource Development Table of Contents List of Abbreviations IV List of Graphics V
Abstract

1. Introduction
   2.1 Problem and Purpose
   2.2 Approach to the Thesis and outline

2. Literature Review
   6.1 The virtual community
   6.1.1 Terms and Definitions
   6.1.2 History of virtual communities
   6.1.3 A typology of virtual communities
   6.1.4 Virtual communities for learning and development
   9.2.2 Learning Theory
   11.2.1 Situated Learning and Legitimate Peripheral Participation
   11.2.2 Organizational Learning in Communities of Practice
   12.2.2.1 Community of Practice as social learning systems
   13.2.2.2 Online collaborative learning
   14.2.3 Community of Practice

Collective intelligence has become an attractive subject of interest for both academia and industry. More and more conferences and workshops discuss the impact of the users' motivation to participate in the value creation process, the enabling role of leading-edge information and communication technologies and the need for better algorithms to deal with the growing amount of shared data. There are many interesting and challenging topics that need to be researched and discussed with respect to knowledge creation, creativity and innovation processes carried forward in the emerging communities of practice. COLLIN is on the path to become the flagship conference in the areas of collective intelligence and ICT-enabled social networking. We were delighted to again receive contributions from different parts of the world including Australia, Europe, Asia, and the United States. Encouraged by the positive response, we plan COLLIN 2012 to be held next year end of August at FernUniversität in Hagen. In order to guarantee the quality of the event, each paper went through a doubleblind review process. The reviews concentrated on originality, quality and relevance of the paper topic to the symposium. In addition, we invited a few renowned experts.
Proposing a new paradigm for Computer Supported Cooperative Work (CSCW), this ground-breaking book presents a research agenda for developing and testing that paradigm. It constitutes the first attempt to outline a comprehensive model of collaboration that integrates the cognitive/conceptual and social dynamics of groups. The challenge faced by all groups engaged in intellectual work is, on the one hand, to divide the task so that efforts of individual members may proceed in parallel and, on the other hand, to synthesize their separate contributions to form a coherent whole. Addressing this challenge, Smith examines the general form of a theory of computer-based collaboration that extends across different tasks and working situations. He uses the work of Newell, Simon, and Anderson as a base from which to consider a group as a form of distributed information processing system. Within groups, there are constructs analogous to human long-term and short-term memory, conceptual processes, and problem solving and knowledge-construction strategies. He discusses two metacognitive issues -- awareness and control -- as they occur in collaborative behavior. And he reviews a number of advanced computer systems that support collaboration, focusing on their impact on the thinking and behavior of groups. Smith's theoretical framework combines elements of Information Processing System theory -- and its detailed process models of cognitive behavior -- with the situated perspective of activity theory. The book suggests new and useful ways of conceiving problems and solutions to all those interested in the ways in which people interact
with each other and with computers to achieve goals. Online learning has been touted as one way of reducing the cost of higher education while simultaneously addressing the increasing demand for educational opportunity and providing access to hitherto “left out” populations. Many universities are defying tradition by offering completely online degrees for global participants. As such, research is needed to improve the design of online and virtual learning environments to ensure that they are inclusive and culturally adaptive for the global education marketplace. The Handbook of Research on Cross-Cultural Online Learning in Higher Education shares paradigms, perspectives, insights, challenges, and best practices for the instructional design and delivery of cross-cultural adult web-based learning experiences and examines adult learner characteristics and competencies critical for the design of these applications. The content within this publication covers trending topics including virtual learning, culturally adaptive environments, and online education and is intended for instructional designers, faculty, administrators, students, and researchers. The book consists of 35 extended chapters which have been selected and invited from the submissions to the 4th International Conference on Computational Collective Intelligence Technologies and Applications (ICCCI 2012) held on November 28-30, 2012 in Ho Chi Minh City, Vietnam. The book is organized into six parts, which are semantic web and ontologies, social networks and e-learning, agent and multiagent systems, data mining methods and applications, soft computing, and optimization and control, respectively. All chapters in the book discuss theoretical and practical issues connected with computational collective intelligence and related technologies. The editors hope that the book can be useful for graduate and Ph.D. students in Computer Science, in particular participants in courses on Soft
Computing, Multiagent Systems, and Data Mining. This book can be also useful for researchers working on the concept of computational collective intelligence in artificial populations. It is the hope of the editors that readers of this volume can find many inspiring ideas and use them to create new cases of intelligent collectives. Many such challenges are suggested by particular approaches and models presented in individual chapters of this book. The editors hope that readers of this volume can find many inspiring ideas and influential practical examples and use them in their future work.

"This book provides a useful reference to the latest advancements in the area of educational technology and e-learning"—Provided by publisher.

Every generation of students comes to the classroom with different needs than that of their predecessors. Implementing new methods and styles of teaching to meet these diverse needs will provide students with the best chance of success in their educational careers. The Handbook of Research on Pedagogical Models for Next-Generation Teaching and Learning is a critical scholarly source that examines the most effective and efficient techniques for implementing new educational strategies in a classroom setting. Featuring pertinent topics including mixed reality simulations, interactive lectures, reflexive teaching models, and project-based learning, this is an ideal publication for educators, academicians, students, and researchers that are interested in discovering more about the recent advances in educational fields.

Previously, key levers of higher education have seemed to be the learning organization, work-integrated learning for life-long learning, and learner-centered pedagogy. However, funding evolution and the integration of digital tools are changing professional styles and learning
behaviors. Nonetheless, the sustainability of higher education requires quality agreement based on ethical, robust, and replicable pedagogical approaches. The Handbook of Research on Operational Quality Assurance in Higher Education for Life-Long Learning is a comprehensive scholarly book that focuses on the evolution of the education framework and job market as well as necessary changes needed in organizations to reply to life-long learning and competency-based training initiatives. Highlighting topics such as digital environment, e-learning, and learning analytics, this book is essential for higher education faculty, managers, deans, professionals, administrators, educators, academicians, researchers, and policymakers.

This volume constitutes the refereed proceedings of the 12th International Conference on Computational Collective Intelligence, ICCCII 2020, held in Da Nang, Vietnam, in November 2020.* The 70 full papers presented were carefully reviewed and selected from 314 submissions. The papers are grouped in topical sections on: knowledge engineering and semantic web; social networks and recommender systems; collective decision-making; applications of collective intelligence; data mining methods and applications; machine learning methods; deep learning and applications for industry 4.0; computer vision techniques; biosensors and biometric techniques; innovations in intelligent systems; natural language processing; low resource languages processing; computational collective intelligence and natural language processing; computational intelligence for multimedia understanding; and intelligent processing of multimedia in web systems. *The conference was held virtually due to the COVID-19 pandemic.

This two-volume set (LNAI 9329 and LNAI 9330) constitutes the refereed proceedings of the
Read Online Collective Intelligence And E Learning 20 Implications Of Web Based Communities And Networking

7th International Conference on Collective Intelligence, ICCCII 2014, held in Madrid, Spain, in September 2015. The 110 full papers presented were carefully reviewed and selected from 186 submissions. They are organized in topical sections such as multi-agent systems; social networks and NLP; sentiment analysis; computational intelligence and games; ontologies and information extraction; formal methods and simulation; neural networks, SMT and MIS; collective intelligence in Web systems – Web systems analysis; computational swarm intelligence; cooperative strategies for decision making and optimization; advanced networking and security technologies; IT in biomedicine; collective computational intelligence in educational context; science intelligence and data analysis; computational intelligence in financial markets; ensemble learning; big data mining and searching.

This book constitutes the proceedings of the 3rd International Conference on E-Learning, E-Education, and Online Training, eLEOT 2016, held in Dublin, Ireland, August 31 – September 2, 2016. The 25 revised full papers presented were carefully reviewed and selected from 35 submissions. They focus on topics as augmented reality learning, blended learning, learning analytics, mobile learning, virtual learning environments.

This book shows how collective intelligence combined with new technologies can help us solve the world's biggest problems.

The 9th International Conference on Intelligent Tutoring Systems (ITS2008) was held June 23–27, 2008 in Montreal. This year we celebrated the 20th anniversary of the conference, founded in 1988 in Montreal. We have had biennial conferences for most of the past 10 years around the world, including in Brazil, Taiwan, France, Canada, and the USA. These ITS conferences provide a forum for the interchange of ideas in all areas of computer science and human
learning, a unique environment to exchange ideas and support new developments relevant for
the future. The 2008 conference was a symbolic milestone that enabled us to look back at
what has been achieved and what is currently being done, in order to face the challenges of
tomorrow. Much has changed in the last 20 years in terms of hardware, software, p-
grammers, and education stakeholders. Technology is now networked, pervasive, and
available anywhere and anytime. The potential exists to provide customized, ubiquitous
guidance and instruction. However, much has remained the same and the need is just as great
to model the learner, teaching strategies and domain knowledge. This year we saw an
increase in research into student affect (motivation, boredom, and frustration), specifically
attempts to detect student affect, while feedback studies considered which responses to
provide given both student cognition and affect. Studies also looked at the impact on learning
of positive feedback and politeness in feedback. New research was seen in data mining based on
larger studies that use data from real students to diagnose effective learning and teaching. So
much interest has been generated in this area that the first International Conference on
Educational Data Mining was co-located with ITS 2008.
This book constitutes the thoroughly refereed post-conference proceedings of the First
International Conference on E-Learning, E-Education, and Online Training (eLEOT 2014) held
in Bethesda, MD, USA, in September 2014. The 22 revised full papers presented were
carefully reviewed and selected from numerous submissions and focus topics such as web
based tools, augmented reality, mobile learning, teaching frameworks and platforms, virtual
learning environments.
Collective Intelligence and E-Learning 2.0: Implications of Web-Based Communities and
These Transactions publish research in computer-based methods of computational collective intelligence (CCI) and their applications in a wide range of fields such as the Semantic Web, social networks and multiagent systems. TCCI strives to cover new methodological, theoretical and practical aspects of CCI understood as the form of intelligence that emerges from the collaboration and competition of many individuals (artificial and/or natural). The application of multiple computational intelligence technologies such as fuzzy systems, evolutionary computation, neural systems, consensus theory, etc., aims to support human and other collective intelligence and to create new forms of CCI in natural and/or artificial systems. This seventh issue contains a collection of ten carefully selected and thoroughly revised contributions.

The book consists of 19 extended and revised chapters based on original works presented during a poster session organized within the 5th International Conference on Computational Collective Intelligence that was held between 11 and 13 of September 2013 in Craiova, Romania. The book is divided into three parts. The first part is titled “Agents and Multi-Agent Systems” and consists of 8 chapters that concentrate on many problems related to agent and multi-agent systems, including: formal models, agent autonomy, emergent properties, agent programming, agent-based simulation and planning. The second part of the book is titled “Intelligent Computational Methods” and consists of 6 chapters. The authors present applications of various intelligent computational methods like neural networks, mathematical optimization and multistage decision processes in areas like cooperation, character recognition, wireless networks, transport, and metal structures. The third part of the book is
titled “Language and Knowledge Processing Systems”, and consists of 5 papers devoted to processing methods for knowledge and language information in various applications, including: language identification, corpus comparison, opinion classification, group decision making, and rule bases.

This handbook is currently in development, with individual articles publishing online in advance of print publication. At this time, we cannot add information about unpublished articles in this handbook, however the table of contents will continue to grow as additional articles pass through the review process and are added to the site. Please note that the online publication date for this handbook is the date that the first article in the title was published online.

This book constitutes the thoroughly refereed conference proceedings of the 5th International Conference on Computational Collective Intelligence, ICCCI 2013, held in Craiova, Romania, in September 2013. The 72 revised full papers presented were carefully selected from numerous submissions. Conference papers are organized in 16 technical sessions, covering the following topics: intelligent e-learning, classification and clustering methods, web intelligence and interaction, agents and multi-agent systems, social networks, intelligent knowledge management, language processing systems, modeling and optimization techniques, evolutionary computation, intelligent and group decision making, swarm intelligence, data mining techniques and applications, cooperative problem solving, collective intelligence for text mining and innovation, collective intelligence for social understanding and mining, and soft methods in collective intelligence.

This book constitutes the proceedings of the 4th World Summit on the Knowledge Society, WSKS 2011, held in Mykonos, Greece, in September 2011. The 90 revised full papers
presented were carefully reviewed and selected from 198 submissions. The papers address issues such as information technology, e-learning, e-business, cultural heritage, e-government. Want to tap the power behind search rankings, product recommendations, social bookmarking, and online matchmaking? This fascinating book demonstrates how you can build Web 2.0 applications to mine the enormous amount of data created by people on the Internet. With the sophisticated algorithms in this book, you can write smart programs to access interesting datasets from other web sites, collect data from users of your own applications, and analyze and understand the data once you've found it. Programming Collective Intelligence takes you into the world of machine learning and statistics, and explains how to draw conclusions about user experience, marketing, personal tastes, and human behavior in general -- all from information that you and others collect every day. Each algorithm is described clearly and concisely with code that can immediately be used on your web site, blog, Wiki, or specialized application. This book explains: Collaborative filtering techniques that enable online retailers to recommend products or media Methods of clustering to detect groups of similar items in a large dataset Search engine features -- crawlers, indexers, query engines, and the PageRank algorithm Optimization algorithms that search millions of possible solutions to a problem and choose the best one Bayesian filtering, used in spam filters for classifying documents based on word types and other features Using decision trees not only to make predictions, but to model the way decisions are made Predicting numerical values rather than classifications to build price models Support vector machines to match people in online dating sites Non-negative matrix factorization to find the independent features in a dataset Evolving intelligence for problem solving -- how a computer develops its skill by improving its own code the more it
Computational collective intelligence (CCI) is most often understood as a subfield of artificial intelligence (AI) dealing with soft computing methods that enable group decisions to be made or knowledge to be processed among autonomous units acting in distributed environments. The needs for CCI techniques and tools have grown significantly recently as many information systems work in distributed environments and use distributed resources. Web-based systems, social networks and multi-agent systems very often need these tools for working out consistent knowledge states, resolving conflicts and making decisions. Therefore, CCI is of great importance for today’s and future distributed systems. Methodological, theoretical and practical aspects of computational collective intelligence, such as group decision making, collective action coordination, and knowledge integration, are considered as the form of intelligence that emerges from the collaboration and competition of many individuals (artificial and/or natural). The application of multiple computational intelligence technologies such as fuzzy systems, evolutionary computation, neural systems, consensus theory, etc., can support
human and other collective intelligence and create new forms of CCI in natural and/or artificial systems.

Intelligent Data Analysis for e-Learning: Enhancing Security and Trustworthiness in Online Learning Systems addresses information security within e-Learning based on trustworthiness assessment and prediction. Over the past decade, many learning management systems have appeared in the education market. Security in these systems is essential for protecting against unfair and dishonest conduct—most notably cheating—however, e-Learning services are often designed and implemented without considering security requirements. This book provides functional approaches of trustworthiness analysis, modeling, assessment, and prediction for stronger security and support in online learning, highlighting the security deficiencies found in most online collaborative learning systems. The book explores trustworthiness methodologies based on collective intelligence than can overcome these deficiencies. It examines trustworthiness analysis that utilizes the large amounts of data-learning activities generate. In addition, as processing this data is costly, the book offers a parallel processing paradigm that can support learning activities in real-time. The book discusses data visualization methods for managing e-Learning, providing the tools needed to analyze the data collected. Using a case-based approach, the book concludes with models and methodologies for evaluating and validating security in e-Learning systems. Indexing: The books of this series are submitted to EI-Compendex and SCOPUS Provides guidelines for anomaly detection, security analysis, and trustworthiness of data processing Incorporates state-of-the-art, multidisciplinary research on online collaborative learning, social networks, information security, learning management systems, and trustworthiness prediction Proposes a parallel processing approach that
Read Online Collective Intelligence And E Learning 20 Implications Of Web Based Communities And Networking

decreases the cost of expensive data processing Offers strategies for ensuring against unfair and dishonest assessments Demonstrates solutions using a real-life e-Learning context Discusses the convergence of knowledge and learning management and provides state-of-the-art knowledge with a semantic web perspective.

This book constitutes refereed proceedings of the 12th International Conference on International Conference on Computational Collective Intelligence, ICCCI 2020, held in Da Nang, Vietnam, in November - December 2020. Due to the the COVID-19 pandemic the conference was held online. The 68 papers were thoroughly reviewed and selected from 314 submissions. The papers are organized according to the following topical sections: data mining and machine learning; deep learning and applications for industry 4.0; recommender systems; computer vision techniques; decision support and control systems; intelligent management information systems; innovations in intelligent systems; intelligent modeling and simulation approaches for games and real world systems; experience enhanced intelligence to IoT; data driven IoT for smart society; applications of collective intelligence; natural language processing; low resource languages processing; computational collective intelligence and natural language processing.

The rate of technological diffusion and the pace at which technology is altering how and with whom we connect is astounding. Although not at the same pace, theoretical views of learning and teaching are also changing. Whereas much of the initial e-learning simply patterned old models of teaching and learning, the new technological possibilities and realities encourage us to think differently about what is meant by education (Brown, 2000). In this paper, we provide a stepping stone in some of the theoretical background, history, and possibilities for learning
systems and platforms in the Web 2.0 era. We share a case study that reflects the experiences of a small university that is moving towards E-Learning 2.0 while simultaneously increasing interoperability by using e-learning standards reflected in the widely-used reference model called SCORM (Sharable Content Object Reference Model). We also highlight the strengths and weaknesses of SCORM in allowing for learning management systems to have a Web 2.0 character. (Contains 2 tables.).

"This book includes a selection of world-class chapters addressing current research, case studies, best practices, pedagogical approaches and strategies, related resources and projects related to e-learing"--Provided by publisher.

With the growth of information technology, many new communication channels and platforms have emerged. This growth has advanced the work of crowdsourcing, allowing individuals and companies in various industries to coordinate efforts on different levels and in different areas. Providing new and unique sources of knowledge outside organizations enables innovation and shapes competitive advantage. Crowdsourcing: Concepts, Methodologies, Tools, and Applications is a collection of innovative research on the methods and applications of crowdsourcing in business operations and management, science, healthcare, education, and politics. Highlighting a range of topics such as crowd computing, macrotasking, and observational crowdsourcing, this multi-volume book is ideally designed for business executives, professionals, policymakers, academicians, and researchers interested in all aspects of crowdsourcing.

This book constitutes the refereed proceedings of the 6th International Conference on Collective Intelligence, ICCCII 2014, held in Seoul, Korea, in September 2014. The 70 full
papers presented were carefully reviewed and selected from 205 submissions. They address topics such as knowledge integration, data mining for collective processing, fuzzy, modal and collective systems, nature inspired systems, language processing systems, social networks and semantic web, agent and multi-agent systems, classification and clustering methods, multi-dimensional data processing, Web systems, intelligent decision making, methods for scheduling, image and video processing, collective intelligence in web systems, computational swarm intelligence, cooperation and collective knowledge.

Intelligent Data Analysis for e-Learning: Enhancing Security and Trustworthiness in Online Learning Systems addresses information security within e-Learning based on trustworthiness assessment and prediction. Over the past decade, many learning management systems have appeared in the education market. Security in these systems is essential for protecting against unfair and dishonest conduct-most notably cheating—however, e-Learning services are often designed and implemented without considering security requirements. This book provides functional approaches of trustworthiness analysis, modeling, assessment, and prediction for stronger security and support in online learning, highlighting the security deficiencies found in most online collaborative learning systems. The book explores trustworthiness methodologies based on collective intelligence than can overcome these deficiencies. It examines trustworthiness analysis that utilizes the large amounts of data-learning activities generate. In addition, as processing this data is costly, the book offers a parallel processing paradigm that can support learning activities in real-time. The book discusses data visualization methods for managing e-Learning, providing the tools needed to analyze the data collected. Using a case-based approach, the book concludes with models and methodologies for evaluating and
validating security in e-Learning systems. Provides guidelines for anomaly detection, security analysis, and trustworthiness of data processing. Incorporates state-of-the-art, multidisciplinary research on online collaborative learning, social networks, information security, learning management systems, and trustworthiness prediction. Proposes a parallel processing approach that decreases the cost of expensive data processing. Offers strategies for ensuring against unfair and dishonest assessments. Demonstrates solutions using a real-life e-Learning context. This book constitutes the proceedings of the 8th International Conference on Intelligent Human Computer Interaction, IHCI 2016, held in Pilani, India, in December 2016. The 22 regular papers and 3 abstracts of invited talks included in this volume were carefully reviewed and selected from 115 initial submissions. They deal with intelligent interfaces; brain machine interaction; HCI applications and technology; and interface and systems.

"A new field of collective intelligence has emerged in the last few years, prompted by a wave of digital technologies that make it possible for organizations and societies to think at large scale. This "bigger mind"--Human and machine capabilities working together--has the potential to solve the great challenges of our time. So why do smart technologies not automatically lead to smart results? Gathering insights from diverse fields, including philosophy, computer science, and biology, Big Mind reveals how collective intelligence can guide corporations, governments, universities, and societies to make the most of human brains and digital technologies. Geoff Mulgan explores how collective intelligence has to be consciously organized and orchestrated in order to harness its powers. He looks at recent experiments mobilizing millions of people to solve problems, and at groundbreaking technology like Google Maps and Dove satellites. He also considers why organizations full of smart people and machines can make foolish
mistakes--from investment banks losing billions to intelligence agencies misjudging geopolitical events--and shows how to avoid them. Highlighting differences between environments that stimulate intelligence and those that blunt it, Mulgan shows how human and machine intelligence could solve challenges in business, climate change, democracy, and public health. But for that to happen we'll need radically new professions, institutions, and ways of thinking. Informed by the latest work on data, web platforms, and artificial intelligence, Big Mind shows how collective intelligence could help us survive and thrive"--Publisher's website.

Copyright: a64921a2073ba8300a938a7a97123cc5