Simulation And Analysis Of Cognitive Radio System Using Matlab

Modeling, simulation, and analysis (MS&A) is a crucial tool for military affairs. MS&A is one of the announced pillars of a strategy for transforming the U.S. military. Yet changes in the enterprise of MS&A have not kept pace with the new demands arising from rapid changes in DOD processes and missions or with the rapid changes in the technology available to meet those demands. To help address those concerns, DOD asked the NRC to identify shortcomings in current practice of MS&A and suggest where and how they should be resolved. This report provides an assessment of the changing mission of DOD and environment in which it must operate, an identification of high-level opportunities for MS&A research to address the expanded mission, approaches for improving the interface between MS&A practitioners and decision makers, a discussion of training and continuing education of MS&A practitioners, and an examination of the need for coordinated military science research to support MS&A.

The simulation described in this report predicts details of performance for students learning to copy Morse code at high speeds of transmission. Specifically, the model predicts the probability of a correct response, an incorrect response, a period (no guess) response, no response, and a correct response for each of the five serial positions in a group. The simulation also predicts the time it takes to execute both a correct and incorrect response and the time it takes to execute a period response. The model was derived from a cognitive analysis of the information processing demands on students and modeled with order-of-processing diagrams. A preliminary test was conducted with response data from students at the U.S. Army Intelligence School, Fort Devens, Massachusetts.

This dissertation proposes two modified cognitive diagnostic models (CDMs), the deterministic, inputs, noisy, "and" gate with hierarchy (DINA-H) model and the deterministic, inputs, noisy, "or" gate with hierarchy (DINO-H) model. Both models incorporate the hierarchical structures of the cognitive skills in the model estimation process, and can be used for situations where the attributes are ordered hierarchically. The Trends in International Mathematics and Science Study (TIMSS) 2003 data are analyzed to illustrate the proposed approaches. The simulation study evaluates the effectiveness of the proposed approaches under various conditions (e.g., various numbers of attributes, test lengths, sample sizes, and hierarchical structures). The simulation study attempts to address the model fits, items fit, and accuracy of item parameter recovery when the skills are in a specified hierarchy and varying estimation models are applied. The simulation analysis examines and compares the impacts of the misspecification of a skill hierarchy on various estimation models under their varying assumptions of dependent or independent attributes. The study is unique in incorporating a skill hierarchy with the conventional DINA and DINO models. It also reduces the number of possible latent

classes and decreases the sample size requirements. The study suggests that the DINA-H/ DINO-H models, instead of the conventional DINA/ DINO models, should be considered when skills are hierarchically ordered. Its results demonstrate the proposed approaches to analyzing the hierarchically structured CDMs, illustrate the usage in applying cognitive diagnosis models to a large-scale assessment, and provide researchers and test users with practical guidelines.

Proceedings of the European Cognitive Science Conference 2007
Dynamical Models In Neurocognitive Psychology
Modelling, Analysis, and Simulation of Computer and Telecommunication Systems
Dynamic Social Network Modeling and Analysis
Modelling and Simulation for Requirements Engineering and Options Analysis
A Cognitive Task Analysis, with Implications for Designing a Simulation-based Performance Assessment

Originally published in 1995, this book is about the conduct of cognitive science rather than what cognitive science is. It has three main objectives. First, it describes the birth of cognitive science. Second, it outlines the method of enquiry which characterises and defines cognitive science. This method uses the techniques of artificial intelligence based on the assumption that mental activity can, in principle, be reproduced by a computer program. Third, the book describes the state of the art in relevant areas, with particular attention to application fields such as pedagogics, human–machine interaction, and psychotherapy. The developmental approach is emphasised and highlights the fact that developmental aspects are essential in order to comprehend the steady mode of functioning achieved once a person has reached total maturity. Cognitive science is not presented as a definitive method for the analysis of the mind, though the author's conclusion is that it is the best of all possible methods today. At the time of publication this book would have been useful as an advanced textbook for students on courses specialising in cognitive science, and as a source of further information for those working in related areas such as cognitive psychology, linguistics, and computer science. It will still be of interest to experts and students in the field of cognitive science.

This volume constitutes the proceedings of the 18th Asia Simulation Conference, AsiaSim 2018, held in Kyoto, Japan, in August 2018. The 45 revised full papers presented in this volume were carefully reviewed and selected from 90 submissions. The papers are organized in topical sections on modeling and simulation technology; soft computing and machine learning; high performance computing and cloud computing; simulation technology for industry; simulation technology for intelligent society; simulation of instrumentation and control application; computational mathematics and computational science; flow simulation; visualization and computer vision to support simulation.

Cognitive task analysis is a broad area consisting of tools and techniques for describing the knowledge and strategies required for task performance. Cognitive task analysis has implications for the development of expert systems, training and instructional design, expert decision making and policymaking. It has been applied in a wide range

of settings, with different purposes, for instance: specifying user requirements in system design or specifying training requirements in training needs analysis. The topics to be covered by this work include: general approaches to cognitive task analysis, system design, instruction, and cognitive task analysis for teams. The work settings to which the tools and techniques described in this work have been applied include: 911 dispatching, faultfinding on board naval ships, design aircraft, and various support systems. The editors' goal in this book is to present in a single source a comprehensive, in-depth introduction to the field of cognitive task analysis. They have attempted to include as many examples as possible in the book, making it highly suitable for those wishing to undertake a cognitive task analysis themselves. The book also contains a historical introduction to the field and an annotated bibliography, making it an excellent guide to additional resources.

Cognitive Diagnostic Analysis Using Hierarchically Structured Skills
11th International Conference, UM 2007, Corfu, Greece, July 25-29, 2007, Proceedings
Meta-analysis of Simulation Games Effectiveness for Cognitive Learning
A Developmental Approach to the Simulation of the Mind
Cognitive Task Analysis
Studying Simulations with Distributed Cognition

The United States is engaged in a new type of warfare. Defeating the enemy is now predicated on winning over local populations. To win these groups, commanders need to know what responses to expect for various operations in particular locations. Social simulations are a promising means of modeling these reactions, and there are several current methods used to populate these simulations with agents representative of a specific society. These methods, however, often require the input of subject matter experts and are costly in price and time. This thesis examines the simplification and automation of the agent instantiation process by conducting a usability study of two data development tools currently under consideration by the U.S. Army and TRAC-MTRY. The tools, a survey data case file generator developed at TRAC-MTRY and a text analysis tool (STANLEY) developed by Sandia National Laboratory, were examined in separate manners, and the results were encouraging. The survey tool was tested to validate in a practical manner its generated case files with respect to simulation output and real-world surveys. STANLEY was evaluated by scoring sentiment in a document corpus and attempting to correlate those scores to a real world issue. Results of the study indicate that the survey data tool generated case files of adequate quality to instantiate social simulations, potentially minimizing SME requirements and costs. Technical limitations precluded STANLEY from returning enough data for sufficient correlation comparison, although the results indicate the tool has potential.

This monograph summarizes what we know about summarizing, and offers a detailed analysis of professional summarizing. A computer simulation of the cognitive processes in expert summarizers is offered on the accompanying CD-ROM.

Alzheimer's disease has been identified as the 6th leading cause of death in United States in 2015. The "preclinical" phase of AD is known to be a long-term progression process towards severe cognitive impairment. Clinical and cognitive scaling methods, especially Clinical Dementia Rating (CDR) and Mini-mental State Examination (MMSE), are widely used in mapping the stage of cognitive impairment status. Many studies have also identified important clinical and physiological risk factors, such as age, smoking status, blood pressure, total serum cholesterol, current impairment status, etc. To discuss a better prediction method of AD for mild cognitive impairment patients, a longitudinal study of the impact of these influential factors is essential. The objective of this research is to firstly analyze the accuracy of both methods and second, to propose a method that gives higher prediction accuracy. The main contribution of this paper is that we gave a thorough analysis on comparison of CDR and MMSE, commented on which method works better based upon personal demographic performance and brought

up a pattern recognition model to predict the probability of patients reaching the unfavorable outcome, i.e. dementia, over time. We gained a method that achieves high accuracy by combining the regression model and MMSE cognitive scales. An agent-based simulation model was brought up to visualize the change of cognitive impairment status of patients over time, in various populations.
Cognitive Values of Dynamic Conformable Models for Dependent Exogenous Processes
Cognitive Modeling and Task Analysis: Basic Processes and Individual Differences
Spectrum Usage Models for the Analysis, Design and Simulation of Cognitive Radio Networks
Summarizing Information
Projecting the Future for Situation Assessment and Planning
18th Asia Simulation Conference, AsiaSim 2018, Kyoto, Japan, October 27–29, 2018, Proceedings

This book provides a comprehensive and state-of-the-art overview of simulation development, technologies, and implementation, including real-world examples and results followed by a preview of what's on the horizon that will further revolutionize the industry. More than a handful of books have been written on the use of simulations for training purposes, but this book focuses solely on simulations in employee selection contexts (e.g., hiring, promotion), making it a truly unique and valuable resource for both practitioners and academics. The science and practice of employee selection has advanced at a steady pace over the past two or three decades. However, recent advancements in both technology and assessment methods have been the catalyst for an evolutionary leap in the use of simulations in this area.

To effectively study team variables as they impact performance in a particular domain, it is possible to develop medium fidelity simulations that abstract some details of the performance environment while maintaining others. This paper reports the results of a successful effort to create a synthetic task environment that captures key elements of a team task based on Cognitive Task Analysis of the important features of the task from a teamwork and cognition viewpoint. The authors studied the performance of AWACS Weapons Director (WD) teams and, based on the CTA data collected and insights from contemporary team theory, adapted an existing base simulation to mimic many of the crucial details of the task and its teamwork demands. The DDD simulator is a unique software tool set and computer system developed to study issues of distributed situation assessment and resource allocation in a dynamic team environment. As of this writing, the authors have run collected data using the DDD AWACS task and knowledgeable cadets from the U.S. Air Force Academy. They are in the process of demonstrating that it is possible to strike a balance between highly complex, large-scale, high fidelity simulations on the one hand, and over-controlled, overly simple laboratory research tasks on the other. Results of the research will inform team theory, system and organizational design, and continued research in the laboratory and field.

This book presents the state-of-the-art in social simulation as presented at the Social Simulation Conference 2018 in Stockholm, Sweden. It covers the developments in applications and methods of social simulation, addressing societal issues such as socio-ecological systems and policy making. Methodological issues discussed include large-scale empirical calibration, model sharing and interdisciplinary research, as well as decision making models, validation and the use of qualitative data in simulation modeling. Research areas covered include archaeology, cognitive science, economics, organization

science, and social simulation education. This collection gives readers insight into the increasing use of social simulation in both its theoretical development and in practical applications such as policy making whereby modelling and the behavior of complex systems is key. The book will appeal to students, researchers and professionals in the various fields.

Advances in Social Simulation

Simulation Analysis

The Development of an Automated Cognitive Task Analysis and Modeling Process for Intelligent Tutoring System Development

Cognitive Impairment Progression Analysis by Comparison of Clinical and Cognitive Scales, Including Visualization Using Agent-Based Simulation Approach

Cognitive Science

Modelling and Simulation of Human Behaviour in System Control

This thesis presents a modification of a simulation model of cognitive agents learning to cross safely a cellular automaton based highway. Analysis and reflection focusing on the design of the initial simulation model, the mechanism of "learning" used in this model, and the shortcomings of the model are described. Based on the analysis of the simulation results of the initial model, a modification of the learning mechanism is proposed, implemented and performance of the modified simulation model is investigated. A large amount of simulation data is generated by the modified simulation model for various combinations of configuration parameters' values. An exhaustive comparison analysis of simulation results produced by the modified and original models is conducted. These analysis involves the design of simulation experiments, data visualization, analysis of various statistics as well as the systematic comparison of clustering of histogram plots of these models. This comparative analysis of models performance conducted for various combinations of parameters brings a better understanding of the performance of cognitive agents' models, in particular the agents decision-making processes, as well as their learning mechanisms. The thesis provides recommendations on how to improve further the simulation model of cognitive agents learning to cross a highway, their decision-making formula and the design of knowledge-based table.

The Handbook of Human-Machine Interaction features 20 original chapters and a conclusion focusing on human-machine interaction (HMI) from analysis, design and evaluation perspectives. It offers a comprehensive range of principles, methods, techniques and tools to provide the reader with a clear knowledge of the current academic and industry practice and debate that define the field. The text considers physical, cognitive, social and emotional aspects and is illustrated by key application domains such as aerospace, automotive, medicine and defence. Above all, this volume is designed as a research guide that will both inform readers on the basics of human-machine interaction from academic and industrial perspectives and also provide a view ahead at the means through which human-centered designers, including engineers and human factors specialists, will attempt to design and

develop human-machine systems.

This volume contains the invited lectures, invited symposia, symposia, papers and posters presented at the 2nd European Cognitive Science Conference held in Greece in May 2007. The papers presented in this volume range from empirical psychological studies and computational models to philosophical arguments, meta-analyses and even to neuroscientific experimentation. The quality of the work shows that the Cognitive Science Society in Europe is an exciting and vibrant one. There are 210 contributions by cognitive scientists from 27 different countries, including USA, France, UK, Germany, Greece, Italy, Belgium, Japan, Spain, the Netherlands, and Australia. This book will be of interest to anyone concerned with current research in Cognitive Science.

A Cognitive Analysis

Cognition and Multi-Agent Interaction

Spectrum Measurement, Sensing, Analysis and Simulation in the Context of Cognitive Radio

Workshop Summary and Papers

Qualitative Simulation Modeling and Analysis

Behavioral Modeling and Simulation

Studies have shown that 98% of students with private tutors do better than students in the traditional classroom. This has initiated research and the development of computerized intelligent tutoring systems based upon research related to cognitive learning and the communication of knowledge between a tutor and a student. Intelligent tutoring systems have demonstrated a 65% improvement in what can be learned in a given period of time as compared to traditional computer aided instruction in Navy tasks. The principle component of these computerized tutors is a model of the knowledge which makes up the cognitive task to be learned by a student. Creating these cognitive models requires an extensive analysis of the task knowledge. This process is expensive yet critical to the success of these tutors. This research has produced a software tool which interacts with a subject matter expert and conducts an analysis of his/her knowledge, building the needed cognitive task model for use in intelligent tutoring system development. An evaluation of the system was conducted to determine the degree of variation in models generated by experts on a specific highly proceduralized task. The subject generated models were also compared to a model generated by a cognitive analyst. The results demonstrated a high degree of consistency in the models developed between subjects although subjects tended to organize their knowledge of procedures into units of differing size. Cognitive task analysis, Cognitive simulation modeling intelligent tutoring systems, GOMS, Human systems interaction transfer of training, Training time prediction. Simulations are frequently used techniques for training, performance assessment, and prediction of future outcomes. In this thesis, the term "human-centered simulation" is used to refer to any simulation in which humans and human cognition are integral to the simulation's function and

purpose (e.g., simulation-based training). A general problem for human-centered simulations is to capture the cognitive processes and activities of the target situation (i.e., the real world task) and recreate them accurately in the simulation. The prevalent view within the simulation research community is that cognition is internal, decontextualized computational processes of individuals. However, contemporary theories of cognition emphasize the importance of the external environment, use of tools, as well as social and cultural factors in cognitive practice. Consequently, there is a need for research on how such contemporary perspectives can be used to describe human-centered simulations, re-interpret theoretical constructs of such simulations, and direct how simulations should be modeled, designed, and evaluated. This thesis adopts distributed cognition as a framework for studying human-centered simulations. Training and assessment of emergency medical management in a Swedish context using the Emergo Train System (ETS) simulator was adopted as a case study. ETS simulations were studied and analyzed using the distributed cognition for teamwork (DiCoT) methodology with the goal of understanding, evaluating, and testing the validity of the ETS simulator. Moreover, to explore distributed cognition as a basis for simulator design, a digital re-design of ETS (DIGEMERGO) was developed based on the DiCoT analysis. The aim of the DIGEMERGO system was to retain core distributed cognitive features of ETS, to increase validity, outcome reliability, and to provide a digital platform for emergency medical studies. DIGEMERGO was evaluated in three separate studies; first, a usefulness, usability, and facevalidation study that involved subject-matter-experts; second, a comparative validation study using an expert-novice group comparison; and finally, a transfer of training study based on self-efficacy and management performance. Overall, the results showed that DIGEMERGO was perceived as a useful, immersive, and promising simulator – with mixed evidence for validity – that demonstrated increased general self-efficacy and management performance following simulation exercises. This thesis demonstrates that distributed cognition, using DiCoT, is a useful framework for understanding, designing and evaluating simulated environments. In addition, the thesis conceptualizes and re-interprets central constructs of human-centered simulation in terms of distributed cognition. In doing so, the thesis shows how distributed cognitive processes relate to validity, fidelity, functionality, and usefulness of human-centered simulations. This thesis thus provides a new understanding of human-centered simulations that is grounded in distributed cognition theory.

The multi-pronged research program is aimed at developing and empirically evaluating an integrated component approach that determines how critical task characteristics and human operator characteristics interact to produce degraded performance under high workload conditions. The approach involves four major facets: (1) a synthetic task platform modeled on the

U.S.A.F. Airborne Warning and Control Systems (AWACs) Weapons Director tasks; (2) a basic processes model of human information processing dimensions; (3) a model of individual differences characteristics; and (4) a military relevant simulation for testing and validation of the integrated process individual differences model.

Modeling and Analysis of Voice and Data in Cognitive Radio Networks
Methods and Applications for Modeling and Simulation of Complex Systems
The Handbook of Human-Machine Interaction
Non-Cognitive Factors and Learning within a Business Simulation
Defense Modeling, Simulation, and Analysis
Including CD-ROM "SimSum", Simulation of Summarizing, for Macintosh and Windows

Situation assessment and planning rely heavily on the decisionmaker's ability to project future conditions in the environment and the impact of tentative planned actions on those conditions. This note presents a cognitive analysis of the future projection process. It identifies three projection strategies-retrieval from experience, formal analysis, and mental simulation--and characterizes their strengths and weaknesses. It also discusses the impact of three general cognitive factors--operation at different levels of abstraction, motivational factors, and attribution problems--on the future projection process. Based on this analysis, the note proposes a cognitive technology for developing and training effective future projection processes. (Author).

This book explores the intersection between individual cognitive modeling and modeling of multi-agent interaction.

Recently there has been considerable interest in qualitative methods in simulation and mathematical model- ing. Qualitative Simulation Modeling and Analysis is the first book to thoroughly review fundamental concepts in the field of qualitative simulation. The book will appeal to readers in a variety of disciplines including researchers in simulation methodology, artificial intelligence and engineering. This book boldly attempts to bring together, for the first time, the qualitative techniques previously found only in hard-to-find journals dedicated to single disciplines. The book is written for scientists and engineers interested in improving their knowledge of simulation modeling. The "qualitative" nature of the book stresses concepts of invariance, uncertainty and graph-theoretic bases for modeling and analysis.

Simulations for Personnel Selection
A Cognitive Task Analysis, with Implications for Designing a Simulation-Based Performance Assessment... Ed428124 ... U.S. Department Of Educa
Meeting the Challenge
Analysis of Performance of Cognitive Agents Learning to Cross a CA Based Highway Using Improved Learning Mechanism
An Analysis of the Relationship Between Cognitive Style and Three Methods of Simulation Game Instruction
Looking in the Mirror

The series Advances in Industrial Control aims to report and encourage te in control engineering. The rapid development of control technology impac control discipline. New theory, new controllers, actuators, sensors, new ir computing methods, new applications, new philosophies . . . , new challen development work resides in industrial reports, feasibility study papers ar advanced collaborative projects. The series offers an opportunity for rese

extended exposition of such new work in all aspects of industrial co
dissemination. The potentially devastating effect of an operator mak
the control of a highly automated system or process is well known.
large-scale automated systems become likely, for example automate
increasingly important to be able to assess the safety of these mixe
Cacciabue's monograph on the modelling and simulation of these mix
technological systems and human operators is extremely timely. The
up-to-date and systematic presentation of the basic concepts and t
comprehensive coverage of the subject also includes a review of the
research effort in the field.
This report presents the results of a scoping study that was condu
and Development roadmap for Project 14dj, "Modelling and Simulatio
Engineering and Options Analysis." The purpose of Project 14dj is to
and Simulation capability, comprised of analytical techniques and sof
addressing human factors issues commonly encountered by Canadia
projects. This scoping study developed a roadmap for this research
research questions from the current Canadian Forces procurement p
applied literature on requirements engineering and options analysis,
advice on how Cognitive Work Analysis could be applied to Canadian
Twenty-four research questions were developed, which are structur
research proposals for Defence R & D Canada to consider for inclusi
research proposals are as follows: (1) research to apply Cognitive W
Modelling and Simulation to the development of operational requirem
conduct a cognitive task analysis of requirements engineering and o
Canadian Forces procurement; (3) research to develop a tool to sup
Cognitive Work Analysis to Canadian Forces procurement; (4) resear
Social Organization and Cooperation Analysis (a lesser-developed are
Analysis) to Canadian Forces procurement; and (5) research to exten
Canada-Toronto's crewing effectiveness task network model. The re
in this report should provide Defence R & D Canada with a stronger
impact on Canadian Forces procurement projects. If successful, this
the Canadian Forces with an overall reduction of risk in the procure
This Springer Brief investigates the voice and elastic/interactive dat
cognitive radio networks (CRNs), in terms of their delay requirement
for wireless communication conflicts with the scarcity of the radio
for more efficient use of the networks. The authors review packet
the voice service and session level delay requirements of the elastic
particularly constant-rate and on-off voice traffic capacities in CRN
distributed network coordination. Some generic channel access sche
coordination mechanism, and call admission control algorithms are d
connected CRNs. Other key topics include the advantages of suppor
with different delay requirements, the mean response time of the e
centralized CRN, and effects of the traffic load at the base station
requirement) distribution on the mean response time. The brief is de
and researchers working with wireless networks, cognitive radio, an
also a helpful reference for advanced-level students interested in ef

communications.

Models of Morse Code Skill Acquisition: Simulation and Analysis

Comparison of Data Development Tools for Populating Cognitive Mo

Simulation

A Human-Centered Design Approach

User Modeling 2007

Cognitive Environment Simulation: Cognitive reliability analysis techn

28th International Symposium, MASCOTS 2020, Nice, France, Novem

Revised Selected Papers

In the summer of 2002, the Office of Naval Research asked th

Human Factors to hold a workshop on dynamic social network

primary purpose of the workshop was to bring together scient

diversity of views and approaches to share their insights, comr

on the developing body of social network analysis research and

secondary purpose was to provide sound models and applicatio

problems of national importance, with a particular focus on nat

workshop is one of several activities undertaken by the Nationa

that bears on the contributions of various scientific disciplines

defending against terrorism. The presentations were grouped ir

Social Network Theory Perspectives, Dynamic Social Networks,

Models, and Networked Worlds â€" each of which concluded w

roundtable discussion among the presenters and workshop att

and issues raised in the session.

This book constitutes the post proceedings of the 28th Interna

Modelling, Analysis, and Simulation of Computer and Telecommu

MASCOTS 2020, held online -due to COVID -19- in Nice, France

2020. The 17 full papers presented were carefully reviewed an

submissions. The symposium collected the most relevant papers

the-art research in the areas of the performance evaluation of

networks as well as in related areas.

The development of cognitive models is a key step in the challe

program to advance our understanding of human cognition and

Dynamical models represent a general and flexible approach to

This introduction focuses on applications of stochastic process

systems to model cognition. The dynamical approach is particu

emphasize the strong link between experimental research (and

analysis, and mathematical models including their computer imp

numerical simulation. Most of specific examples are from the d

movement research, with concepts being applicable to a broad

cognitive modeling. The textbook aims at the graduate and/or a

undergraduate level for students in Cognitive Science and relat

Psychology and Computer Science. Joint introduction of the th

processes and mathematical models, their underlying mathemat

numerical simulation, and analysis; The focus on eye movements
theoretically coherent, but very general application area; Compu
Programming Language for Statistical Computing is available fo
figures, and solutions to exercises.
From Cognitive Task Analysis to Simulation
Developing a Synthetic Team Task for AWACS Weapons Director
From Individuals to Societies
Adv Hum Perf Cog Eng Res Vol 5
From Cognitive Modeling to Social Simulation
Today's military missions have shifted away from fighting nation states using conventional weapons toward combating insurgents and terrorist networks in a battlespace in which the attitudes and behaviors of civilian noncombatants may be the primary effects of military actions. To support these new missions, the military services are increasingly interested in using models of the behavior of humans, as individuals and in groups of various kinds and sizes. Behavioral Modeling and Simulation reviews relevant individual, organizational, and societal (IOS) modeling research programs, evaluates the strengths and weaknesses of the programs and their methodologies, determines which have the greatest potential for military use, and provides guidance for the design of a research program to effectively foster the development of IOS models useful to the military. This book will be of interest to model developers, operational military users of the models and their managers, and government personnel making funding decisions regarding model development.
This book constitutes the refereed proceedings of the 11th International Conference on User Modeling, UM 2007, held in Corfu, Greece in July 2007. Coverage includes evaluating user/student modeling techniques, data mining and machine learning for user modeling, user adaptation and usability, modeling affect and meta-cognition, as well as intelligent information retrieval, information filtering and content personalization.