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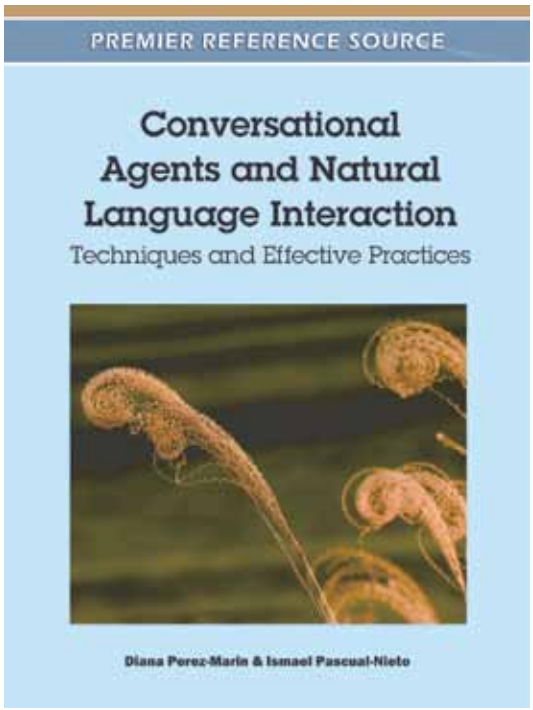
Conversational Agents and Natural Language Interaction: Techniques and Effective Practices



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Diana Perez-Marin (Universidad Rey Juan Carlos, Spain) and
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By combining agent capabilities with computational linguistics, conversational agents can exploit natural language technologies to improve communication between humans and computers.

Conversational Agents and Natural Language Interaction: Techniques and Effective Practices is a reference guide for researchers entering the promising field of conversational agents. It provides an introduction to fundamental concepts in the field, collects experiences of researchers working on conversational agents, and reviews techniques for the design and application of conversational agents. The book discusses the successes of and challenges faced by researchers, designers, and programmers who want to use conversational agents for e-commerce, help desks, website navigation, personalized service, and training or education applications.

Topics Covered:

- Agent Capabilities
- Agent Expressiveness
- Computational Linguistics
- Conversational Agents
- Conversational Personal Assistants
- Design of Conversational Agents
- Dialogue Management Techniques
- Interactive Agents
- Natural Language (NL) Interaction
- User Interaction and Conversational Agents

Market: This premier publication is essential for all academic and research library reference collections. It is a crucial tool for academicians, researchers, and practitioners and is ideal for classroom use.

Diana Pérez-Marín received the Ph.D. degree in Computer Science and Engineering from the Universidad Autónoma de Madrid in 2007 and her degree in Computer Science by the Universidad Autónoma de Madrid in 2002. She is currently a lecturer and researcher at the Department of Computing Languages and Systems I of the Computer Science Faculty of the Universidad Rey Juan Carlos in Spain. Her PhD has been published in 2010 by VDM Verlag and it is available with ISBN 978-3639207200. She has published more than 40 papers in international journals such as *Journal of Educational Technology and Society, or Computers and Education* and participated in eight national and international research projects. She has been awarded a prize to their novelty of the teaching possibilities of Internet in 2007 and as project leader in 2008. In 2010, she organized the First International Workshop on Adaptation and Personalization in E-B/Learning using Pedagogic Conversational Agents (APLeC) together with Dr. Ismael Pascual-Nieto and Dr. Susan Bull, collocated with the international conference User Modeling, Adaptation and Personalization (UMAP). Currently, she is also co-editor of a Special Issue on Automatic Free-text Evaluation in the *International Journal of Continuing Engineering Education and Life-Long Learning* (IJCEELL) to be published by Indescience at the end of 2010. She is member of the Artificial Intelligence in Education (AI-ED) Society, LEMORE, LITE, and ADIE.

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Section 1: Fundamental Concepts

Chapter 1
From Chatbots to Dialog Systems
Klüwer Tina (DFKI GmbH, Germany)

Chapter 2
Designing and Evaluating Interactive Agents as Social Skills Tutors for Children with Autism Spectrum Disorder
Milne Marissa (Flinders University, Adelaide, Australia)
Luerssen Martin (Flinders University, Adelaide, Australia)
Lewis Trent (Flinders University, Adelaide, Australia)
Leibbrandt Richard (Flinders University, Adelaide, Australia)
Powers David (Flinders University, Adelaide, Australia)

Section 2: Design of Conversational Agents

Chapter 3
Designing ECAs to Improve Robustness of Human-Machine Dialogue
Mencía Beatriz López (Universidad Politécnica de Madrid, Spain)
Pardo David D. (Universidad Politécnica de Madrid, Spain)
Trapote Alvaro Hernández (Universidad Politécnica de Madrid, Spain)
Gómez Luis A. Hernández (Universidad Politécnica de Madrid, Spain)

Chapter 4
Dialogue Act Classification Exploiting Lexical Semantics
Novielli Nicole (Università degli Studi di Bari, Italy)
Strapparava Carlo (FBK-irst, Istituto per la Ricerca Scientifica e Tecnologica, Italy)

Chapter 5
A Cognitive Dialogue Manager for Education Purposes
Pirrone Roberto (University of Palermo, Italy)
Cannella Vincenzo (University of Palermo, Italy)
Russo Giuseppe (University of Palermo, Italy)
Pipitone Arianna (University of Palermo, Italy)

Chapter 6
Building a Social Conversational Pedagogical Agent:
Gulz Agneta (Linkoping University, Sweden & Lund University, Sweden)
Haake Magnus (Lund University, Sweden)
Silvervarg Annika (Linkoping University, Sweden)
Sjödén Björn (Lund University, Sweden)
Veletsianos George (University of Texas at Austin, USA)

Chapter 7
Design and Implementation Issues for Convincing Conversational Agents
Löckelt Markus (German Research Center for Artificial Intelligence, Saarbrücken, Germany)

Chapter 8
Extending Conversational Agents for Task-Oriented Human-Computer Dialogue
Andrews Pierre (University of Trento, Italy)
Quarteroni Silvia (University of Trento, Italy)

Chapter 9
Affective Conversational Agents:
Callejas Zoraida (University of Granada, Spain)
López-Cózar Ramón (University of Granada, Spain)
Ábalos Nieves (University of Granada, Spain)
Griol David (Carlos III University of Madrid, Spain)

Chapter 10
Enhancement of Conversational Agents By Means of Multimodal Interaction
López-Cózar Ramón (University of Granada, Spain)
Callejas Zoraida (University of Granada, Spain)
Espejo Gonzalo (University of Granada, Spain)
Griol David (Carlos III University of Madrid, Spain)

Section 3: Practices

Chapter 11
Embodied Conversational Virtual Patients
Kenny Patrick G. (University of Southern California, USA)
Parsons Thomas D. (University of Southern California, USA)

Chapter 12
A Conversational Personal Assistant for Senior Users
Dahl Deborah A. (Conversational Technologies, USA)
Coin Emmett (ejTalk, Inc., USA)
Greene Michael (newInteractions, Inc., USA)
Mandelbaum Paulette (newInteractions, Inc., USA)

Chapter 13
A Companionable Agent
Catizone Roberta (University of Sheffield, U.K.)
Wilks Yorick (University of Sheffield, U.K.)

Chapter 14
Humanizing Conversational Agents:
Amores J. Gabriel (Intelligent Dialogue Systems (Indisys), Spain)
Manchón Pilar (Intelligent Dialogue Systems (Indisys), Spain)
Pérez Guillermo (Intelligent Dialogue Systems (Indisys), Spain)

Chapter 15
Design and Development of an Automated Voice Agent:
Stavropoulou Pepi (University of Athens, Greece)
Spiliotopoulos Dimitris (University of Athens, Greece)
Kouroupetroglou Georgios (University of Athens, Greece)

Chapter 16
Conversational Agents in Language and Culture Training
Sagae Alicia (Alelo, USA)
Johnson W. Lewis (Alelo, USA)
Valente Andre (Alelo, USA)

Section 4: Future Trends

Chapter 17
The Future of Companionable Agents
Catizone Roberta (University of Sheffield, U.K.)
Wilks Yorick (University of Sheffield, U.K.)

Chapter 18
Future Trends for Conversational Agents
Pérez-Marín Diana (Universidad Rey Juan Carlos, Spain)
Pascual-Nieto Ismael (Universidad Autónoma de Madrid, Spain)

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