Record Nr. UNINA9910255196803321 Social Coordination Frameworks for Social Technical Systems / / edited **Titolo** by Huib Aldewereld, Olivier Boissier, Virginia Dignum, Pablo Noriega, Julian Padget Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa **ISBN** 3-319-33570-7 Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (VIII, 276 p. 65 illus., 26 illus. in color.) Law, Governance and Technology Series, , 2352-1902;; 30 Collana 371.334 Disciplina Soggetti Mass media Law Artificial intelligence Economic sociology Application software Computer simulation Software engineering IT Law, Media Law, Intellectual Property Artificial Intelligence Organizational Studies, Economic Sociology Computer Appl. in Social and Behavioral Sciences Simulation and Modeling Software Engineering/Programming and Operating Systems Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references at the end of each chapters. Nota di contenuto Part I Preliminaries -- 1 Introduction; Huib Aldewereld, Olivier Boissier, Virginia Dignum, Pablo Noriega and Julian Padget -- 2 Conceptual Map for Social Coordination; Huib Aldewereld, Sergio Álvarez-Napagao, Maria Emilia Garcia, Jorge Gomez Sanz, Jie Jiang, and Henrique Lopes Cardoso -- Part II Social Coordination Frameworks -- 3 ANTE - A Framework integrating Negotiation, Norms and Trust; Henrique Lopes Cardoso, Joana Urbano, Ana Paula Rocha, António J. M. Castro, and

Eugénio Oliveira -- 4 Electronic Institutions. The EI / EIDE Framework;

Pablo Noriega and Dave de Jonge -- 5 INGENIAS; Jorge J. Gomez-Sanz and Rubén Fuentes Fernández -- 6 InstAL: An Institutional Action Language; Julian Padget, Emad ElDeen Elakehal, Tingting Li, and Marina De Vos -- 7 The JaCaMo Framework; Olivier Boissier, Jomi F. Hübner, and Alessandro Ricci -- 8 ROMAS-MAGENTIX2; Emilia Garcia, Soledad Valero, and Adriana Giret -- 9 OperA/ALIVE/OperettA; Huib Aldewereld, Sergio Álvarez-Napagao, Virginia Dignum, Jie Jiang, Wamberto Vasconcelos, and Javier Vázquez-Salceda -- 10 Specifying and Executing Open Multi-Agent Systems; Alexander Artikis, Marek Sergot, Jeremy Pitt, Dídac Busquets, and Régis Riveret -- 11 Frameworks Comparison; Olivier Boissier, Virginia Dignum, and María Emilia García -- Part III Applications and Challenges -- 12 Application Domains; Julian Padget, Huib Aldewereld, Pablo Noriega, and Wamberto Vasconcelos -- 13 Challenges for M4SC; Julian Padget, Huib Aldewereld, and Wamberto Vasconcelos.

Sommario/riassunto

This book addresses the question of how to achieve social coordination in Socio-Cognitive Technical Systems (SCTS). SCTS are a class of Socio-Technical Systems that are complex, open, systems where several humans and digital entities interact in order to achieve some collective endeavour. The book approaches the question from the conceptual background of regulated open multiagent systems, with the question being motivated by their design and construction requirements. The book captures the collective effort of eight groups from leading research centres and universities, each of which has developed a conceptual framework for the design of regulated multiagent systems and most have also developed technological artefacts that support the processes from specification to implementation of that type of systems. The first, introductory part of the book describes the challenge of developing frameworks for SCTS and articulates the premises and the main concepts involved in those frameworks. The second part discusses the eight frameworks and contrasts their main components. The final part maps the new field by discussing the types of activities in which SCTS are likely to be used, the features that such uses will exhibit, and the challenges that will drive the evolution of this field.