Record Nr. UNINA9910797292603321
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Anigrafs: experiments in cooperative cognitive architecture //

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Pubbl/distr/stampa Cambridge, Massachusetts;; London, England:,: The MIT Press,,

[2015] ©2015

ISBN 0-262-32911-5

Descrizione fisica 1 online resource (163 pages) : illustrations

Disciplina 153

Titolo

Soggetti Cognition

Group decision making Artificial intelligence

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Note generali Bibliographic Level Mode of Issuance: Monograph

Nota di bibliografia Includes bibliographical references and index.

Nota di contenuto Foreword -- Preliminaries : from babble to barter -- From vehicles to

anigrafs -- Intrinsic knowledge -- Social connections: bartering -- Anigraf abstraction -- Animacy [action-agents] -- Anigraf1 -- Anigraf2 : swimmers : beginning to move -- Anigraf3: walkers : syncopated limbs -- Anigraf4: tally machines -- Cognition : agents with beliefs -- Anigraf5: dancers : mating games -- Anigraf6: planners : event sequencing -- Anigraf7: explorers : new worlds -- Anigraf8: alliances : coordinating diversity -- Metagrafs -- Representational forms -- Epilogue -- Appendices -- Bibliography -- Phase plots -- Glossary --

Commentaries -- Notes -- Index.

Sommario/riassunto "In this book, Whitman Richards offers a novel and provocative

proposal for understanding decision making and human behavior. Building on Valentino Braitenberg's famous 'vehicles, ' Richards describes a collection of mental organisms that he calls 'daemons'--virtual correlates of neural modules. Daemons have favored choices and make decisions that control behaviors of the group to which they belong, with each daemon preferring a different outcome. Richards arranges these preferences in graphs, linking similar choices, which thus reinforce each other. 'Anigrafs' refers to these two components--animals, or the mental organisms (agents or daemons), and the graphs

that show similarity relations. Together these two components are the basis of a new cognitive architecture. In Richards's account, a collection of daemons compete for control of the cognitive system in which they reside; the challenge is to get the daemons to agree on one of many choices. Richards explores the results of group decisions, emphasizing the Condorcet voting procedure for aggregating preferences. A neural mechanism is proposed. Anigrafs presents a series of group decisions that incorporate simple and complex movements, as well as aspects of cognition and belief. Anigrafs concludes with a section on 'metagrafs,' which chart relationships between different anigraf models"--MIT CogNet.