Record Nr. UNINA9910491848803321 Autore Vehlken Sebastian **Titolo** Zootechnologies: a media history of swarm research / / Sebastian Vehlken; translated by Valentine A. Pakis [[electronic resource]] Amsterdam University Press, 2019 Pubbl/distr/stampa Amsterdam: ,: Amsterdam University Press, , 2019 **ISBN** 90-485-3742-8 1 online resource (400 pages) : digital, PDF file(s) Descrizione fisica Collana Recursions: theories of media, materiality, and cultural techniques Disciplina 006.3824 Soggetti Swarm intelligence Computer simulation Swarming (Zoology) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Title from publisher's bibliographic system (viewed on 20 Nov 2020). Note generali Already published as: Zootechnologien. Eine Mediengeschichte der Schwarmforschung, Sebastian Vehlken. Copyright 2012, Diaphanes, Zurich-Berlin. Nota di bibliografia Includes bibliographical references. Nota di contenuto Front matter -- Table of Contents -- Acknowledgements --Introduction -- I. Deformations: A Media Theory of Swarming -- II. Formations -- III. Formats -- IV. Formulas -- V. Transformations -- VI. Zootechnologies -- Conclusion -- Works Cited Swarming has become a fundamental cultural technique related to Sommario/riassunto dynamic processes and an effective metaphor for the collaborative efforts of society. This book examines the media history of swarm research and its significance to current socio-technological processes. It shows that the hype about collective intelligence is based on a reciprocal computerization of biology and biologization of computer science: After decades of painstaking biological observations in the ocean, experiments in aquariums, and mathematical model-making, it was swarms-inspired computer simulation which provided biological researchers with enduring knowledge about animal collectives. At the same time, a turn to biological principles of self-organization made it possible to adapt to unclearly delineated sets of problems and clarify

the operation of opaque systems - from logistics to architecture, or

from crowd control to robot collectives. As zootechnologies, swarms offer performative, synthetic, and approximate solutions in cases where analytical approaches are doomed to fail.