Record Nr. UNINA9910357829103321 Paradigm Shift in Technologies and Innovation Systems [[electronic **Titolo** resource] /] / edited by John Cantwell, Takabumi Hayashi Pubbl/distr/stampa Singapore:,: Springer Singapore:,: Imprint: Springer,, 2019 **ISBN** 981-329-350-0 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (320 pages) 338.064 Disciplina Soggetti Economic policy Management Industrial management Knowledge management R & D/Technology Policy Innovation/Technology Management **Knowledge Management** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references. Nota di bibliografia Nota di contenuto The Philosophy of Paradigm Change in the History of Social Evolution -- Paradigm Changes in Technological Knowledge Connections in Urban Innovation Systems -- International Standardization of the New Technology Paradigm: A Strategy for Royalty-Free Intellectual Property -- New roles for Japanese companies at the knowledge-based economy -- Paradigm Shifts in the TFT-LCD Industry and Japan's Competitive Position in East Asia -- Text mining method for building new business strategies -- Paradigm Change in the History of the Pharmaceutical Industry. This book provides some new ideas on the conceptualization of a shift Sommario/riassunto in technological paradigm, and it explores in depth the relevance of this concept for research on innovation systems. It examines textmining software and analyzes patent data as well as academic and business journals to illustrate the paradigm shift of newly emerging technologies, such as the all-solid-state battery and automatic driving for electric vehicles, and surgical robots. It also explores the critical role of emerging software technologies by examining US, EU, and

Japanese patent statistics. Highlighting the paradigm shift of technologies since the 1990s and the geographical dispersion of innovative capabilities, it identifies essential trends toward new innovation systems as well as the concentration and dispersion of national and corporate R&D capabilities that have taken place as a result. In this new paradigm, the competitiveness of a company is decisively determined by other innovations in systems and management. Since the 1990s, when a network economy began to be established and technological know-how came to be easily transferred across borders, the changing structure of technological activities has required organizations with traditional integral and closed architecture models to move toward open innovation or modular architectures. These changes involve wider technological areas and cognitive diversity among international inter-firm and intra-firm R&D networks. This book is highly recommended not only to academicians but also to business people seeking an in-depth and up-to-date overview of the paradigm shift of technologies and new innovation systems.