

1. Record Nr.	UNINA9910132341303321
Autore	Bressan Beatrice
Titolo	From physics to daily life : applications in informatics, energy, and environment / / edited by Beatrice Bressan
Pubbl/distr/stampa	Wiesbaden, Germany : , : Wiley Blackwell, , 2014 ©2014
ISBN	3-527-68702-5 3-527-68703-3 3-527-68701-7
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (367 p.)
Disciplina	303.48/30112
Soggetti	Physics Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes indexes.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	From Physics to Daily Life: Applications in Informatics, Energy, and Environment; Contents; Contributors" CVs; Foreword; List of Acronyms; List of Units; 1 Introduction; Part I: Knowledge Management and Technology Transfer in an Organization; 2 Knowledge Management: From Theory to Practice; 2.1 Knowledge-Based and Innovative Organization; 2.2 The Theory of Knowledge; 2.2.1 Tacit and Explicit Knowledge; 2.2.2 The SECI Model and the Knowledge Creation Spiral; 2.2.3 The Two Dimensions and the Two Spirals of Knowledge Creation; 2.2.4 The Five Conditions and the Five Phases in Two Dimensions 2.3 The Core Processes of Managing Knowledge2.3.1 Knowledge Outputs and Outcomes; 2.4 The Knowledge Worker; 2.4.1 The Individual Learning Process; 2.4.2 Scientific, Technological and Social Processes; 2.4.3 Concept Formation and the Hierarchical Levels of Conceptualization; 2.5 The Knowledge Creation, Acquisition, and Transfer Model; 2.6 Knowledge Management: A Case Study of CERN; 2.6.1 The LHC Case Study Survey; Part II: Examples of Knowledge and Technology Transfer; Section 1: Linking Information; 3 WWW and More; 3.1 The First Page; 3.2 Influences on the History of the Web 3.2.1 A Matter of Age3.2.2 The Approach; 3.3 CERN's Role; 3.3.1 A

Possible Definition; 3.3.2 Making it Work; 3.3.3 On Documents; 3.3.4 The Director General; 3.3.5 Al Gore, the LHC, and the Rest is History; 3.4 What-if Musings; 3.4.1 Money, Money, Money . . .; 3.4.2 And if Not?; 3.5 The Dark Sides of the Force; 3.5.1 Techies; 3.5.2 Global Heating; 3.5.3 Sin by Omission; 3.6 Good Stuff; 3.6.1 Public Domain; 3.6.2 The Conferences; 3.6.3 The Consortium; 3.7 On the Nature of Computing; 3.7.1 Copy; 3.7.2 See; 3.7.3 Understand; 3.7.4 Remember; 3.7.5 Interact; 3.7.6 Share; 3.7.7 Think
3.8 Science 'Un-human'
3.9 Lessons to be Learned; 3.10 Conclusions; 4 Grid and Cloud; 4.1 Why a Grid?; 4.2 A Production Infrastructure; 4.3 Transferring Technology: Grids in Other Science Domains; 4.4 How CERN Openlab has Contributed to the WLCG Grid; 4.5 Four Basic Principles; 4.6 Three-Year Phases; 4.7 EGEE to EGI Transition; 4.8 Lessons Learned and Anticipated Evolution; 4.9 Transferring Technology: Grids in Business; 4.10 Sharing Resources Through Grids; 4.11 What are the Hurdles?; 4.12 Philips Research: Scientific Simulation, Modelling and Data Mining Supports Healthcare
4.13 Finance: Stock Analysis Application
4.14 Multimedia: GridVideo;
4.15 Imense: From Laboratory to Market; 4.16 Total, UK; 4.17 Seismic Imaging and Reservoir Simulation: CGG Veritas Reaping Benefits from the Grid; 4.18 Societal Impact; 5 The 'Touch Screen' Revolution; 5.1 The Birth of a Touch Screen; 5.2 The Novelty for the Control Room of the CERN SPS Accelerator; 5.3 A Touch Screen as Replacement for Mechanical Buttons; 5.4 Attempts at Early Knowledge Transfer; 5.5 Evolution Turned Into Revolution; 5.6 Touch Screen and Human Behaviour; Section 2: Developing Future
6 Solar Thermal Electricity Plants

Sommario/riassunto

Beatrice Bressan brings together a number of outstanding examples of successful cross-disciplinary technology transfer originating in fundamental physics research, which dramatically impacted scientific progress in areas which changed modern society. Many of them were developed at CERN, a hotbed of fundamental inventions in particle physics. This book deals with breakthrough developments being applied in the world of IT, consumer electronics, aviation, and material sciences. Additional sections of the book deal with knowledge management and technology transfer including their economic aspect
