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| 1. Record Nr.           | UNISA996198863103316   |
| Titolo                  | Smart Health [[electronic resource] ] : Open Problems and Future Challenges / / edited by Andreas Holzinger, Carsten Röcker, Martina Ziefle  |
| Pubbl/distr/stampa      | Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015  |
| ISBN                    | 3-319-16226-8  |
| Edizione                | [1st ed. 2015.]  |
| Descrizione fisica      | 1 online resource (XIV, 275 p. 68 illus.)  |
| Collana                 | Information Systems and Applications, incl. Internet/Web, and HCI ; ; 8700   |
| Disciplina              | 610.285  |
| Soggetti                | Health informatics<br>Application software<br>Database management<br>Data mining<br>Information storage and retrieval<br>User interfaces (Computer systems)<br>Health Informatics<br>Information Systems Applications (incl. Internet)<br>Database Management<br>Data Mining and Knowledge Discovery<br>Information Storage and Retrieval<br>User Interfaces and Human Computer Interaction  |
| Lingua di pubblicazione | Inglese  |
| Formato                 | Materiale a stampa   |
| Livello bibliografico   | Monografia   |
| Note generali           | Bibliographic Level Mode of Issuance: Monograph  |
| Nota di contenuto       | From Smart Health to Smart Hospitals -- Medicine and Health Care as a Data Problem: Will Computers Become Better Medical Doctors -- Spatial Health Systems: When Humans Move Around -- Towards Pervasive Mobility Assessments in Clinical and Domestic Environments -- Personalized Physical Activity Monitoring Using Wearable Sensors -- Energy Harvesting on Human Bodies -- On Distant Speech Recognition for Home Automation -- A User-Centered Design Approach to Physical Motion Coaching Systems for Pervasive Health -- Linking Biomedical Data to the Cloud -- Towards Personalization of Diabetes Therapy |

Sommario/riassunto

Prolonged life expectancy along with the increasing complexity of medicine and health services raises health costs worldwide dramatically. Whilst the smart health concept has much potential to support the concept of the emerging P4-medicine (preventive, participatory, predictive, and personalized), such high-tech medicine produces large amounts of high-dimensional, weakly-structured data sets and massive amounts of unstructured information. All these technological approaches along with “big data” are turning the medical sciences into a data-intensive science. To keep pace with the growing amounts of complex data, smart hospital approaches are a commandment of the future, necessitating context aware computing along with advanced interaction paradigms in new physical-digital ecosystems. The very successful synergistic combination of methodologies and approaches from Human-Computer Interaction (HCI) and Knowledge Discovery and Data Mining (KDD) offers ideal conditions for the vision to support human intelligence with machine learning. The papers selected for this volume focus on hot topics in smart health; they discuss open problems and future challenges in order to provide a research agenda to stimulate further research and progress.

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