German Medical Data Sciences: Visions and Bridges
Proceedings of the 62nd Annual Meeting of the German Association of Medical Informatics, Biometry and Epidemiology (gmds e.V.) 2017 in Oldenburg (Oldenburg) – GMDS 2017

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We live in an age characterized by computerized information, but ubiquitous information technology has profoundly changed our healthcare systems and, if not adequately trained to deal with it, healthcare professionals can all too easily be overwhelmed by the complexity and magnitude of the data. This demands new skills from physicians as well as novel ways to provide medical knowledge. Selecting and assessing relevant information presents a challenge which can only be met by bridging the various disciplines in healthcare and the data sciences.

This book presents the proceedings of the 62nd annual meeting of the German Association of Medical Informatics, Biometry and Epidemiology (German Medical Data Sciences – GMDS 2017): Visions and Bridges, held in Oldenburg, Germany, in September 2017. The 242 submissions to the conference included 77 full papers, of which 42 were accepted for publication here after rigorous review. These are divided into 7 sections: teaching and training; epidemiological surveillance, screening and registration; research methods; IT infrastructure for biomedical research/data integration centers; healthcare information systems; interoperability – standards, terminologies, classification; and biomedical informatics, innovative algorithms and signal processing.

The book provides a vision for healthcare in the information age, and will be of interest to all those concerned with improving clinical decision making and the effectiveness and efficiency of health systems using data methods and technology.