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Nota di contenuto	Understanding Digital Earth -- Part I Digital Earth Technologies -- Digital Earth Platforms -- Remote Sensing -- Satellites for Digital Earth -- Satellite Navigation for Digital Earth -- Geospatial Information Infrastructures -- Geospatial Information Processing Technologies -- Geospatial Information Visualization and Extended Reality Displays -- Transformation in Scale for Continuous Zooming -- Big Data and Cloud Computing -- Artificial Intelligence -- Internet of Things -- Social Media and Social Awareness -- Part II Digital Earth for Multi-domain Applications -- Digital Earth for Sustainable Development Goals -- Digital Earth for Climate Change Research -- Digital Earth for Disaster Mitigation Research -- Digital City: An Urban Perspective on Digital Earth -- Digital Heritage -- Citizen Science in Support of Digital Earth -- The Economic Value of Digital Earth -- Part III Digital Earth Regional & National Development -- Digital Earth in Europe -- Digital Earth in Australia -- Digital Earth in China -- Digital Earth in Russia -- Part IV Digital Earth Education and Ethics -- Digital Earth Education -- Digital Earth Ethics.
Sommario/riassunto	This open access book offers a summary of the development of Digital Earth over the past twenty years. By reviewing the initial vision of Digital Earth, the evolution of that vision, the relevant key technologies, and the role of Digital Earth in helping people respond to global challenges, this publication reveals how and why Digital Earth is becoming vital for acquiring, processing, analysing and mining the

rapidly growing volume of global data sets about the Earth. The main aspects of Digital Earth covered here include: Digital Earth platforms, remote sensing and navigation satellites, processing and visualizing geospatial information, geospatial information infrastructures, big data and cloud computing, transformation and zooming, artificial intelligence, Internet of Things, and social media. Moreover, the book covers in detail the multi-layered/multi-faceted roles of Digital Earth in response to sustainable development goals, climate changes, and mitigating disasters, the applications of Digital Earth (such as digital city and digital heritage), the citizen science in support of Digital Earth, the economic value of Digital Earth, and so on. This book also reviews the regional and national development of Digital Earth around the world, and discusses the role and effect of education and ethics. Lastly, it concludes with a summary of the challenges and forecasts the future trends of Digital Earth. By sharing case studies and a broad range of general and scientific insights into the science and technology of Digital Earth, this book offers an essential introduction for an ever-growing international audience.