Record Nr. UNINA9910132201803321 Building information modeling: BIM in current and future practice // **Titolo** Karen M. Kensek, Douglas Noble Pubbl/distr/stampa Hoboken, N.J., : Wiley, 2014 **ISBN** 9781118766309 (hbk.) 9781119174752 (e-book) 1-118-76661-X 1-119-17475-9 1-118-76637-7 Descrizione fisica 1 online resource (xxxii, 397 p.) : ill Altri autori (Persone) KensekKaren M. <1962-> NobleDouglas <1959-> Disciplina 690.0285 Soggetti Building information modeling Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. Part 1: Design Thinking and BIM -- Chapter 1: Smart Buildings/Smart Nota di contenuto (er) Designers: BIM and the Creative Design Process -- Chapter 2: Necessity of Cognitive Modeling in BIM's Future -- Chapter 3: Modeling Architectural Meaning -- Chapter 4: Knowledge-Based Building Information Modeling -- Part 2: BIM Analytics -- Chapter 5: Parametric BIM SIM: Integrating Parametric Modeling, BIM, and Simulation for Architectural Design -- Chapter 6: Models and Measurement: Changing Design Value with Simulation, Analysis, and Outcomes -- Chapter 8: Performance Art: Analytics and the New Theater of Design Practice --Chapter 9: Automated Energy Performance Visualization for BIM --Chapter 10: Urban Energy Information Modeling: High-Fidelity Aggregated Building Simulation for District Energy Systems -- Chapter 11: BIM and the Predesign Process: Modeling the Unknown -- Chapter 12: Analytical BIM: BIM Fragments, Domain Gaps, and Other Impediments -- Part III: Comprehensive BIM -- Chapter 13: One BIM to

Rule Them All: Future Reality or Myth? -- Chapter 14: Component-Based BIM: A Comprehensive, Detailed, Single-Model Strategy -- Chapter 15: BIM Ecosystem: The Coevolution of Products, Processes,

and People -- Part IV: Reasoning with BIM -- Chapter 16: BIM, Materials, and Fabrication -- Chapter 17: Communicating Semantics through Model Restructuring and Representation -- Chapter 18: BIM as a Catalyst to Foster Creativity through Collaboration -- Chapter 19: BIM and Virtual Reconstruction: A Long-Term View of (Re-)Modeling -- Part V: Professional BIM -- Chapter 20: Managing BIM Projects, Organizations, and Policies: Turning Aspirations into Quantitative Measures of Success -- Chapter 21: Space: The First (and Final) Frontier of BIM -- Chapter 22: Translating Designs for Construction + Operations: The Future of BIM in a World of Material and Energy Scarcity -- Chapter 23: Marx, BIM, and Contemporary Labor -- Part VI: BIM Speculation -- Chapter 24: Beyond BIM: Next-Generation Building Information Modeling to Support Form, Function, and Use of Buildings -- Chapter 25: Engines of Information: Big Data from Small Buildings -- Chapter 26: BIM and MetaBIM: Design Narrative and Modeling Building Information -- Glossary -- Author Biographies -- Index.

Sommario/riassunto

The bright future and exciting possibilities of BIM. Many architects and engineers regard BIM as a disruptive force, changing the way building professionals design, build, and ultimately manage a built structure. With its emphasis on continuing advances in BIM research, teaching, and practice, Building Information Modeling: BIM in Current and Future Practice encourages readers to transform disruption to opportunity and challenges them to reconsider their preconceptions about BIM. Thought leaders from universities and professional practice composed essays exploring BIM's potential to improve the products and processes of architectural design including the structure and content of the tools themselves. These authors provide insights for assessing the current practice and research directions of BIM and speculate about its future. The twenty-six chapters are thematically grouped in six sections that present complementary and sometimes incompatible positions: Design Thinking and BIM; BIM Analytics; Comprehensive BIM; Reasoning with BIM; Professional BIM; BIM Speculations. Together, these authors provide stimulating ideas regarding new directions in building information modeling.