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Nota di contenuto	Introduction : Design in a time of simultaneity, superintegration, and convergence : Convergence defined ; Convergence paradigms ; Convergence questions -- 10 factors leading toward convergence : Convergence and integration ; Convergence and consolidation ; Convergence and automation ; Convergence and efficiency ; Convergence triggers ; 10 factors bringing about convergence ; Challenges to convergence -- Data and intuition : A look back at the data ; Quantitative vs. qualitative data ; Architecture starts with intuition ; The limits of data in architecture ; The convergence of everything ; What convergence works against ; Data and intuition in design tools -- Analytics and models : Integrated analytics ; Modeling and simulation ; Energy modeling ; Compliance modeling ; Geodesign, GIS, and BIM ; Does technology facilitate convergence? ; Data, accessibility, and convergence ; The point where all the intelligence converges -- Parametrics and computation : BIM tools ; Challenges to the convergence ; Computational tools ; On the evolution of a parametric/computational convergence ; Simulation and automation ; The algorithm of everything ; Algorithms and machine learning -- Virtual and physical : Advances in virtual reality ; VR and reality capture

; Reality computing ; Uses for VR in architecture ; VR and AR in architecture, engineering, and construction ; Leveraging video games in AEC ; Implementing encapsulated knowledge ; BIM and gaming ; Artificial intelligence, machine learning, and machine vision for BIM ; Nature abhors a convergence -- Conception and construction : "When does design end and construction begin? ; Buildings as documents ; Fusing the computational and material ; Convergence of Technology and construction -- Design and fabrication : Your next building will be manufactured ; Reasons for a design/fabrication convergence ; Drones and robots ; Cross-discipline knowledge of engineering, architecture, computer science, and management ; Toward an architecture of everything -- Practical and ineffable : Ideation is almost antithetical to automation ; Between firmness, commodity, and delight ; Start with utter practicality -- Epilogue : An impending period of intense change : The software of everything.

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## Sommario/riassunto

Those working in architecture and engineering feel pressure to work faster, at lower cost, while maintaining a high level of innovation and quality. At the same time, emergent tools and processes make this possible. Convergence is about the firms, teams and people who thrive in this environment as a result of their ability to creatively combine and innovate. It seeks to answer several timely questions: What are the tools and work processes that are converging? How are individuals and organizations converging their tools and work processes? What challenges and benefits are they seeing? What is the ultimate endgame of this convergence? What skillsets and mindsets would someone need to develop to work effectively in this changing environment? What are the implications of convergence on the role of the designer, and on design? On how we design, build, fabricate, and construct? On how we work? The book explains how convergence relates to, but ultimately differs from integration, consolidation, multi-tasking, automation, and other forms of optimization. The practice-based research builds upon the author's research in BIM and in the collaborative leveraging of data in design and fabrication. As an investigation and meditation on the impact of technology on the education and making of design professionals Convergence explains what is happening in the world of design, and discusses the implications for the future of education, training and practice. -- Publisher's website.

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