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Titolo	Creativity, Problem Solving, and Aesthetics in Engineering : Today's Engineers Turning Dreams into Reality // by David Blockley
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Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XIII, 218 p. 47 illus., 30 illus. in color.)
Disciplina	620.001
Soggetti	Technology—History Technical education Technology Technology—Sociological aspects History of Technology Engineering/Technology Education Popular Science in Technology Science and Technology Studies
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Making -- Dwelling -- Moving -- Communicating -- Fighting -- Wellbeing -- Flourishing.
Sommario/riassunto	This book illuminates what engineering is and how it relates to other disciplines such as art, architecture, law, economics, science, technology, and even religion. The author explains, from an intrinsic as well as descriptive perspective, why engineering is essential for our collective well-being, and how, like medicine, it is undertaken by people, and for people, to improve the human condition. He brings out the 'magic' of engineering practice as well as addressing the darker aspects such as warfare and the misuse of the internet. A too commonly held view assumes that the practice of engineers is a cold, purely quantitative and wholly technical enterprise of applying know science, and devoid of creativity or aestheticism. In 2013 the United States National Academy of Engineering launched a campaign called "Changing the Conversation, Messages for Improving Public

Understanding of Engineering” with four messages to impart about engineers: that they make a world of difference; are creative problem solvers; that they help shape the future, and are essential to health, happiness, and safety. In this volume, Professor Blockley incorporate these messages into an engaging exposition of engineering accomplishment in all of its evolving diversity, from the technician to the academic research engineer, illustrating the continuum of thinking and purpose from the fixer of the gas boiler to the designers of the A380 and the iPhone. Sets out what engineering actually is; Demonstrates historically how knowing and doing have evolved hand in hand; Identifies and explores many of society’s grand challenges including climate change; Suggests five guiding principles that may help us to steer a way through a risky future; Rejuvenates Aristotle’s neglected notion of phronesis or practical wisdom – the intellectual virtue of practical reasoning—for the current era.
