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Blockchain Revolution: How the Technology Behind Bitcoin is Changing Money, Business, and the World.

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BOOK REVIEWS

Mapping Innovation: A Playbook for Navigating a Disruptive Age. 2017. Greg Satell. New York: McGraw-Hill Education. 240 pages

In his new book available on Amazon, business writer Greg Satell skillfully uses stories to explore the process, products, and experience of innovation. Starting with the story of Doug Engelbart's introduction of the computer mouse to attendees at an engineering conference in San Francisco in 1968, Satell examines the changes catalyzed by that past event to reveal clues for the future: How does one choose the right path? This is an important question faced by many managers and executives. In particular, how does an organization continue to meet quality objectives while investing in innovation for the future?

In the first part of the book, Satell describes the process of innovation, combining and recombining ideas in new contexts by combinations of people with different backgrounds and experiences, and from different disciplines. In Part 2, he introduces the "innovation framework" and explains how the innovation efforts at top companies fit into this conceptual model. In this framework, there are two dimensions: the problem definition and the domain definition. Basic research occurs when both are not well defined, while disruptive innovation occurs when the domain is well defined but the problem is

not. Breakthrough innovation is the opposite: the domain is not well defined, but the problem is.

Although readers may be familiar with Google's "20% Time" as a vehicle for innovation, Satell also discusses the "Three Horizons" or 70/20/10 model. Seventy percent of innovation work should focus on current markets and current capabilities, while 20 percent should leverage existing markets and existing capabilities that are not actively being pursued. The remaining 10 percent can focus on creating new markets and developing completely new capabilities.

This book provides an excellent summary of past perspectives on innovation, carefully framed in the current context for optimal utility. It is an easy read and a great addition to one's innovation bookshelf.

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Blockchain Revolution: How the Technology Behind Bitcoin is Changing Money, Business, and the World. 2016. Dan Tapscott and Alex Tapscott. New York: Penguin Random House. 348 pages

Blockchain, the technology underlying Bitcoin and other cryptocurrencies, is a public, distributed database that provides decentralized management of transactional data. What makes it unique is that it operates on a peer-to-peer network, where no node has greater authority than any other node, and where any participant can join or leave the network at will. In contrast with earlier "permissionless" systems (e.g., Napster, BitTorrent), blockchain inserts "puzzles" to be solved that provide "proof of work," making blockchain technology particularly suitable for transactions that require peer review, robust identification of participants, democratic decision making, consensus generation, or solid provenance and audit trails. Clearly there are many potential applications in the domain of quality management.

This book takes a comprehensive look at the issues surrounding blockchain technology, the implementation of

blockchains, and the social, political, and economic context of this new technology. It is organized into three parts, each with a different emphasis. In Part I ("Say You Want a Revolution"), the philosophy and value proposition of blockchain are presented. The "distributed trust network the (original) Internet never had" is described in historical context, emphasizing the significance of trust and how it might impact innovation of Internet-based services and business models. Part I also presents the seven design principles of blockchain, centered on the new concept of "smart contracts," which are intelligent contracts that protect both physical and intellectual property.

Part II ("Transformations") addresses seven specific potential applications of blockchain: a new infrastructure for financial transactions, a new way to define organizational boundaries, innovative business models that are enabled by blockchain, managing the Internet of Things, new modes of entrepreneurship, more participative democracy, and ways to generate (and profit from) adding value for both individuals and organizations. At present, startups are investigating each of these potential applications, and lessons learned should emerge within a few years.

Part III ("Promise and Peril") describes barriers to the implementation and adoption of new blockchain-based business models. Most significantly, the infrastructure is not well distributed, and the technology just isn't *accessible* to most people. Despite the hype, the authors note that "the technology is not ready for prime time." This includes concerns related to scalability; for example, the amount of energy required to "mine" a year's worth of new Bitcoin is equal to the amount of energy consumed by the entire country of Ecuador over that time period. Clearly this is an issue that needs a resolution soon.

This book is not an easy read; each chapter is packed with material, and the analysis is complex, persuasive, and requires "thinking out of the box" in a way in which many people are unaccustomed. However, it is important for all managers and executives responsible for quality to start the process of understanding blockchain technology, particularly since it has such far-reaching implications for compliance and transaction management, which are key aspects of any quality system. On a positive note, however, this book focuses on the "big picture" of blockchain from a business perspective and does not get into the mechanics of cryptography, which most blockchain and Bitcoin books tend to emphasize.

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Gemba Kaizen: A Commonsense Approach to a Continuous Improvement Strategy, 2nd ed. 2012. Masaaki Imai. New York: McGraw-Hill. 448 pages

Gemba Kaizen provides both a guide to action and a model of what success can look like. The author explores concepts and language that are likely to be familiar to readers with a background in continuous improvement. What is unique is that Gemba Kaizen also provides context for many of the Japanese terms frequently referenced in a "lean" environment. By placing the terminology and tools in context, readers begin to understand the broader intent of the language and gain back what has been lost in translation. Many of the Japanese words used in quality management have a much deeper meaning than the abbreviated translations people have become familiar with, and this context is critical to the development of the real spirit and culture of kaizen.

Organizations have applied lean principles as a way to cut costs, lead times, and defects, and yet many have struggled to maintain long-term gains as a result of their efforts. *Gemba Kaizen* suggests that this is because these organizations have not developed a true culture or spirit of kaizen; understanding the meaning and intent of the original descriptions can catalyze this transformation. Who is responsible for establishing and modeling this culture and spirit? Imai places this responsibility squarely on the shoulders of those at the top of the organizational chart.

The author addresses the significant role leadership plays in building and maintaining a culture that supports and encourages continuous improvement right from the start. On page two, "kaizen and management" is the first item on a list of major kaizen concepts. Leadership must understand the value of people and the importance of building a culture that is respectful, disciplined, and encourages the development and adoption of new ideas. The author does not specifically speak to change management; he devotes nearly half of the book to examples and case studies from a wide range of organizations. Individuals wishing to convince others of the combined power of both the tools and mindset of kaizen should find that these examples will help combat the refrains of "we're different" or "that won't work here."

This book is useful for CEOs and others in leadership roles, including middle managers and supervisors—that is, individuals who are critical to the success of any continuous improvement effort. This book provides clear guidance on tools that are simple to use, coupled with straightforward graphics and practical examples. It is both a valuable learning tool/reference and a call for action, emphasizing not just the use of tools, but also the value of building a culture that is respectful, disciplined, and encourages the development and adoption of new ideas. *Gemba Kaizen* is easy to read, well written, and provides a common-sense approach to taking action. It could be used as textbook for students who have work experience or are participating in a course that includes an experiential component.