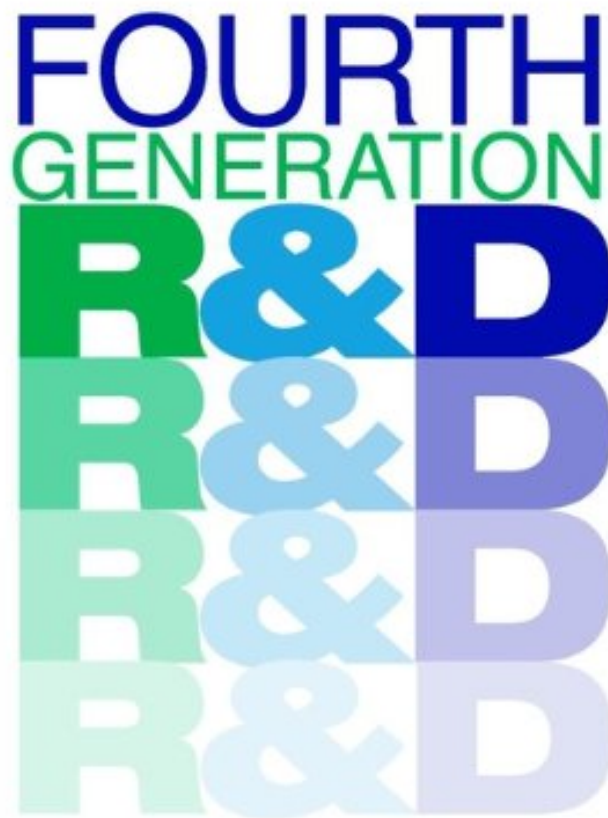


Fourth Generation RD: Managing Knowledge, Technology, and Innovation

William L. Miller, Langdon Morris
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Managing Knowledge,
Technology, and Innovation
William L. Miller and Langdon Morris



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William L. Miller, Langdon Morris : Fourth Generation RD: Managing Knowledge, Technology, and Innovation before purchasing it in order to gage whether or not it would be worth my time, and all praised Fourth Generation RD: Managing Knowledge, Technology, and Innovation:

23 of 27 people found the following review helpful. Sustainable Innovation!By Mark W. McElroyAuthors Miller and Morris have nailed the impending transformation of RD from its historical, product-centric past to its emerging

knowledge-centric future. In addition, their focus on 'discontinuous' and 'fusion' innovation promises to lead the way for industry, in general, whose RD functions typically produce less than one new product innovation per decade and whose new products, when they are produced, tend to fail in under four years. The authors' explicit embrace of knowledge management is also welcome, as the value of most companies now tends to rest more on the weight of their intellectual assets than on so-called 'hard' assets. Finally, this book's focus on distributed, enterprise-wide innovation signals the tearing down of RD's overly centralized and compartmentalized profile in most firms, and offers strong support for the view that innovation should be structured as a distributed, whole-firm social process, not an administrative one. I highly recommend this book to readers interested in RD, innovation, knowledge management, intellectual capital, organizational learning, and sustainable innovation.

10 of 11 people found the following review helpful. Strategic management of innovation

By Suckwoo Lee

You might be curious about what the title of this book refers to. It's rather simpler than you might guess. In a common vocabulary in business, it refers to the radical innovation. Then, you might infer that the 3rd generation RD should be the incremental innovation. Yep. You're right. But those conventional terms don't fit completely into what authors argues. There is sufficient reason to coin such neologisms. The argument of this book goes like this. Traditional market research tends to deal with explicit knowledge. Focus group, survey, structured interview, all tackle what is pre-definable or expressible in word. But could such approaches spot the next generation product? authors question. No. customers can't put into words their gut feeling needs. They could spot it only when it appears on the market. The real breakthrough in product development, more often than not, comes in unexpected way. Thus, authors pose the question, How we should manage the uncertainty? Put in other way, how we should manage the innovation? RD or product development must include incremental innovation. But in this turbulent environment, it's not enough. To be the leader in the market, not follower, one should ride ahead the tide. Then the question of RD should be the radical innovation. Break with the identifiable trend. Then what product should be devised? All RD begins with the product concept. But now the concept should be based on what customer's gut feeling or their tacit needs. Don't make what customer wants today. Make what they want tomorrow. At this point, you might retort: Yep. You're right. But it's easier to be told than to be done. How I could do so? Here comes the knowledge management. Customer's tacit needs tend to be buried in noise of day-to-day information flow. There are numerous reasons for such filtering out. But all in all, to be sensitive to that kind of info, the authors maintain, is to manage the organization innovative. Knowing is not doing. Doing needs the capability to do. Then innovation requires the capability building. But it's not that simple to build up. It must face resistance inside the firm itself. Radical innovation tends to be the capability-destroying one. so developing innovative product usually comes with organizational innovation.

Above is the problem authors pose to us. I think the better title of the book is Strategic management of innovation. This book is not about the specificity of RD, but about how to manage the firm innovative. Overall tenet of the book is so close to Nonaka Takeuchi's The Knowledge-Creating Company. But this book is written not for academic researcher but for managers in the field. Points are made in graphic way with various case studies by authors. Nonetheless, it lacks the depth of Nonaka Takeuchi's book. I recommend to read this book with Nonaka Takeuchi's.

1 of 2 people found the following review helpful. Ten Year later: Still Exceptional and Now a Classic!

By T. D. Bjornsson

I got this book when it first came out in 1999, and then I thought it was both insightful and practical for exactly what the subtitle says: "Managing Knowledge, Technology, and Innovation". Now ten years later, and after having read lots of books on innovation, and witnessed the evolution of new terms like design thinking, etc, I still find this book to be an exceptional and stimulating source of new ways of thinking about innovation, and an inspiration.

Praise for Fourth Generation RD "A sweeping and insightful analysis of an architecture for innovation in the knowledge economy. Technologists, strategists, and organizational architects will all find this book worth reading, as will students of the modern organization." --John Seely Brown Chief Scientist, Xerox Corporation "The new realities of competition beg a new approach to innovation and R Fourth Generation RD answers that challenge. With lucid arguments and detailed case studies, Fourth Generation RD sketches a powerful new paradigm for planning and managing innovation. Every manager concerned with innovation and its role as a strategic resource--that's to say, every manager--will profit from this new understanding." Lawrence Wilkinson President, Global Business Network "Fourth Generation RD is a tour de force. Its sweep, depth, and use of graphics are all truly remarkable (not to mention its command of the literature on innovation). The distinctions it draws between continuous and discontinuous innovation--and between tacit and explicit knowledge--are fundamental." --John Yochelson President, The Council on Competitiveness

From the Inside Flap

Mastery of innovation and RD is critical to survival in today's hypercompetitive business environment. It involves years of patient (and impatient) investigation, punctuated by moments of inspiration. It positions uncontrollable creativity side by side with disciplined business process. And it is, for most companies,

tremendously difficult to achieve. Now, for the first time, one book shows you how to balance these seemingly contradictory requirements to develop a coherent approach to some of the most challenging business problems your company faces. Fourth Generation RD defines a comprehensive, state-of-the-art model for the practice of innovation and RD management. In this breakthrough book, renowned RD professionals William L. Miller and Langdon Morris fully describe the essential qualities, factors, methods, and business processes that enable successful innovators to consistently outperform everyone else. They offer detailed case studies on the advanced innovation practices of seven world leaders—Ford, Hewlett-Packard, Intel, Motorola, NASA, Nike, and Xerox—as well as dozens of specific examples from many other organizations in high technology, manufacturing, and consumer products. The authors will teach you the many qualities that all of these innovations have in common and how to apply a single business process to achieve similar results in your own organization. They include over 100 diagrams and photographs, hundreds of references, and pages of detailed questions to be asked at each stage of implementation in order to help your organization become effective at innovation. Writing with clear prose and using a careful structure, the authors explain: How to master the linkage between strategy, innovation, and RD Why conventional market research is not sufficient—and what is How to use the Internet as a critical component of the innovation process The vital difference between tacit and explicit knowledge, and how to combine them for effective knowledge management How new organizational models used in leading organizations are critical to Success The differences between continuous and discontinuous innovation, and how to make your organization effective at both Offering a successful framework for using RD to drive innovation throughout an entire organization, Fourth Generation RD is essential reading for everyone in RD, marketing, strategic planning, product design, and product development. From the Back Cover Praise for Fourth Generation RD "A sweeping and insightful analysis of an architecture for innovation in the knowledge economy. Technologists, strategists, and organizational architects will all find this book worth reading, as will students of the modern organization." —John Seely Brown Chief Scientist, Xerox Corporation "The new realities of competition beg a new approach to innovation and RD; Fourth Generation RD answers that challenge. With lucid arguments and detailed case studies, Fourth Generation RD sketches a powerful new paradigm for planning and managing innovation. Every manager concerned with innovation and its role as a strategic resource—that's to say, every manager—will profit from this new understanding." Lawrence Wilkinson President, Global Business Network "Fourth Generation RD is a tour de force. Its sweep, depth, and use of graphics are all truly remarkable (not to mention its command of the literature on innovation). The distinctions it draws between continuous and discontinuous innovation—and between tacit and explicit knowledge—are fundamental." —John Yochelson President, The Council on Competitiveness About the Author WILLIAM L. MILLER, PhD, now at Intel, has served on the board of the Industrial Research Institute and has twenty-nine years of experience managing industrial RD. LANGDON MORRIS is President of KMLab, Inc. and the author of Managing the Evolving Corporation and The Knowledge Channel.