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Richard K. LESTER, Michael J. Piore : Innovationmdash;The Missing Dimension before purchasing it in order to gage whether or not it would be worth my time, and all praised Innovationmdash;The Missing Dimension:

1 of 1 people found the following review helpful. Great book on overseen factors behind innovationBy Ulas

Turkmen Innovative ideas need space to germinate, grow, and develop into complete products. The nature of this space, how it can be created, and how to steer it are the topics of this book. The authors base their arguments on studies of companies from various industries that were either introducing new products to markets where they had no foothold, or trying to stay ahead of the competition by continuous innovation. It is very interesting to see how seemingly disparate industries such as fashion, medical imaging or home lighting face similar issues when they have to connect different departments within the same organization or interface with other companies for information exchange. While Motorola has to balance the gungho attitude of radio operators with the more reliability-oriented approach of telephone network operators, Levi's has to cooperate with stonewashing laundries and share techniques that differentiates them from the other jean manufacturers. The authors point out that the way product and manufacturing design is formulated and studied in the literature and in companies is through the problem-solving perspective. Design is treated as a problem to be solved, whereby an analysis is performed to split the problem into parts, which are then delegated to people with suitable expertise. This specific insight of the authors is that the analytic approach is neither accurate, in that it's not what really happens, nor preferable if innovation is to be a focus. It's not accurate, because there is something preceding the analysis step. As one executive remarks, "by the time I see the parts, I already have the answer". That is, for a solution to be formed and split into parts, the exact problem has to be formulated, and this is a very difficult and specific task on itself. The analytic approach is also not preferable if innovation is at stake, because the ideal problem-solving approach is one of taking the shortest distance to the goal within certain constraints. Innovation, however, requires a speculative, open-ended process that serves as a precursor to the analytic episode. During this process, there is radical uncertainty, meaning that not even the possible outcomes are known, and there is a lot of experimenting and trial-and-error involved ("You have to kiss a lot of frogs"). According to the authors, the distinctive component of this seemingly chaotic phase is interpretation. Interpretation is the counterpart to analysis, and is characterized by a vague target, open-ended conversations, and fluid borders. If analysis is possible with the problem-solving approach, what is the basic process that enables interpretation? The answer is the above-mentioned conversation, but not within the strict information-exchange view in which communication is seen in the analytical perspective. If it is to lead to new insights, and serve as a basis for innovation, conversation has to be open-ended, include people and organizations with different backgrounds and perspectives, and not shy away from ambiguity. Management usually aims to remove all ambiguity from communication within a company, but for the purposes of interpretation, the ambiguity that is familiar to us all from our daily use of language is actually crucial. It is the critical resource out of which ideas emerge, because ambiguity leads to the participants inquiring each other about their standpoints, and make new discoveries about each other and about the object they are organizing around. The rest of the book is dedicated to understanding the analysis vs interpretation divide, how companies can create and sustain conversations to alternate between these, and case studies of successful and collapsed conversations. The authors compare the role of the manager in a company that wants to sustain conversations to the host of a cocktail party, who has to supply the right participants and environment for conversations, make sure that the conversation does not get bogged down in bargaining, and rekindle it when it threatens to die off. One interesting connection made by the authors is how conversations in the early phase are threatened by the existing customers of a company, reminiscent of the innovator's dilemma. The end result of a conversation is not, as a simple extrapolation would make one believe, a product or a problem to solve; it is a language community. One of the most interesting and surprising aspects of this book is the affinity to the developments that were then current in Cognitive Science (especially Cognitive Linguistics) evidenced by this characterization. The authors compare the people who develop a common language after taking part in a conversation for a prolonged period of time with communities that develop a language of their own, going from a pidgin to a creole, and characterize them as a language community. The most relevant property of such a community is that they have created a space where ambiguity can be recognized as such, but does not have to be feared. It is rather recognized as a possibility for interpretation. They further reference the category theory of Lakoff, who argued against strict category membership, and inherent vagueness in the linguistic usage of category terms. The book goes deeper into the relationship of companies to two other settings that are accepted to be interpretive communities. The first of these is industrial districts, such as Silicon Valley or the Veneto region of Italy, famous for its clothing manufacturers, out of which Benetton emerged as the leader. Although these districts provide the interpretive communities for whole industries through the knowledge and labor that flows between the smaller companies, they are under pressure from the leaders who make use of these resources, but contribute little in return. There is a similar relationship between universities and the industry, especially in the US. Universities are singular in how they combine analytic and interpretive communities. They offer the chance for intense occupation with very specific problems, but also a public arena for chance encounters, open discussions, and intense social interactions. In this sense, they are one of the most important locusts for interpretive communities. Recently, universities have come under financial pressure, thus reaching for more industry collaboration, and companies are eager to offload their research to universities. There is a very clear conflict in the fundamental driving forces of these two spheres, however: Universities function under the principles of openness and peer recognition, whereas businesses follow financial incentives. The authors discuss the various facets of this conflict on concrete cases, but refrain from proposing simplistic solutions. Of particular

significance for me was the connection the authors made to the software development context. I think the authors have recognized the idiosyncracies of software development, and the exceptional relevancy they present for the book, rather well. Software is even more difficult to break apart analytically and reassemble than manufacturing. The pieces interact with one another in unpredictable ways due to the inherent complexity and brittleness of software components. Furthermore, one cannot just throw people at a problem (the notorious 'mythical man-month'), because if they don't belong to the same "language community", i.e. don't have the same way of conceptualizing computational problems, the results of their work will be incompatible. In this respect, as the authors state, "Software is emblematic because it defies the model of the division of labor that lies at the heart of mass production and the analytical approach to product design". The solutions software developers have found to these challenges are also vindications of the importance the authors attribute to interpretive communities. Before they were mentioned in the book, it was obvious to me that the online-first communities that form around various open source software technologies (languages, operating systems, programs) are a great example of interpretive communities. As the authors point out, these communities lead to intense online discussions on how to write software, and the importance of perfecting the craft of programming. The second software process that goes in the direction of interpretive communities are agile approaches. These have arisen as a counter-argument to the analytic, component-oriented software development methodologies, and have always argued for independent, self-organizing teams that work on increments to systems that are always in a running, complete state, even if diminished in terms of features. Agile approaches furthermore encourage focusing on communication and cooperation, rather than documentation and strict processes. This book is a fresh alternative to all the process-oriented books that teach well-defined methods that are promised to make your organization successful, but end up creating another shell. I hope it moves at least a few managers to provoking conversations among their workers, and taking the end results seriously.

0 of 0 people found the following review helpful. Five Stars
By Paula Clarke
Arrived on time and as described. Thank you!
0 of 1 people found the following review helpful. Five Stars
By Customer
Great book- relevant to any contemporary business.

Amid mounting concern over the loss of jobs to low-wage economies, one fact is clear: America's prosperity hinges on the ability of its businesses to continually introduce new products and services. But what makes for a creative economy? How can the remarkable surge of innovation that fueled the boom of the 1990s be sustained? For an answer, Richard K. Lester and Michael J. Piore examine innovation strategies in some of the economy's most dynamic sectors. Through eye-opening case studies of new product development in fields such as cell phones, medical devices, and blue jeans, two fundamental processes emerge. One of these processes, analysis--rational problem solving--dominates management and engineering practice. The other, interpretation, is not widely understood, or even recognized--although, as the authors make clear, it is absolutely crucial to innovation. Unlike problem solving, interpretation embraces and exploits ambiguity, the wellspring of creativity in the economy. By emphasizing interpretation, and showing how these two radically different processes can be combined, Lester and Piore's book gives managers and designers the concepts and tools to keep new products flowing. But the authors also offer an unsettling critique of national policy. By ignoring the role of interpretation, economic policymakers are drawing the wrong lessons from the 1990s boom. The current emphasis on expanding the reach of market competition will help the analytical processes needed to implement innovation. But if unchecked it risks choking off the economy's vital interpretive spaces. Unless a more balanced policy approach is adopted, warn Lester and Piore, America's capacity to innovate--its greatest economic asset--will erode.

Lester and Piore tell us that a corporate focus on core competencies will not suffice to make a brand irreplaceable and thus earn a ticket to prolonged life. Indeed great brands don't just fall from the sky, they have to be built through the carefully assembled blocks of innovation. The authors lead us to the conclusion that you have to go beyond just listening to the customer, you have to observe them and anticipate what they themselves never imagined they would want.

--Patrick le Queacute;ment, Chief Designer, Renault
Innovation-The Missing Dimension does have a central focus, but it is such a broad-ranging coverage of the important subject of innovation that it actually adds many dimensions to the reader's thinking. A worthwhile experience.

--Robert W. Galvin, Former CEO, Motorola
Finally, a book that blows past the one-size-fits-all answers of politicians and business pundits. Innovation-The Missing Dimension sets the standard for understanding how to compete in a global economy.

--Bob Buder, Editor at Large, Technology , and author of Engines of Tomorrow
It is pretty clear that the future of a leading-edge economy now rests on its capacity to innovate. It is not at all clear what institutions and practices particularly favor innovation. Building on a few closely observed case studies, Lester and Piore arrive at some interesting, plausible and, well, innovative ideas about the way new products and processes come into existence and sometimes flourish. Their ideas have novel and significant implications for teaching, management and governance.

--Robert M. Solow, Nobel Laureate in Economics
This book brings new insight into innovation--where it begins and how it can be introduced and managed. The authors' original and thought-provoking prescriptions reach far beyond the world of business. They explain how education must demonstrate and play a major role in innovation.

--Governor Gaston Caperton, President, The College

BoardWhile innovation is typically seen as a single process, Lester and Piore break it into two parts: problem solving and interpretation. Companies focus constantly on the former, which tends to be a rational step-by-step process. If they talk about the latter at all, it is under the guise of 'listening to the customer,' a less well-defined discipline. Much of the book is devoted to case studies of product development in fields ranging from cellphones to medical equipment to bluejeans. --Robert Weisman (Boston Globe 2004-11-05)From 1994 to 2002, almost in parallel with the Internet-led boom in the U.S. economy, researchers at the Industrial Performance Center at MIT developed a series of case studies of technology-oriented companies. These studies allowed the authors of the current book to identify common patterns in the innovation process. What the authors found was startlingly simple: innovation was a function of two basic processes--analysis and interpretation. While there are numerous books on the topic of innovation, this volume's real value is its exposition of the two processes and the illustration of these processes through exhaustive case studies...Innovation is absolutely critical to the economic well-being of the U.S. and is the only bulwark against the migration of jobs overseas. The authors make these points tellingly, using persuasive arguments that illustrate the innovation processes in organizations. --R. Subramanian (Choice 2005-03-01)This is an interesting and stimulating book. It argues that innovation studies have so far neglected an important dimension of the innovative process, which the authors call the interpretive dimension. This refers to managers' capability of bringing together people of different backgrounds (e.g., engineers, product designers, advanced users), engage them in constructive discussions about new products, manage the confusion and ambiguity that may inevitably arise in the interactions between heterogenous agents, interpret such ambiguity, and eventually point to new technological trajectories that the innovative process should lead to...Richard Lester and Michael Piore develop this interesting argument by describing the results of three case studies on innovation and product design in rather different industries...The basic argument developed in this book is original, and it challenges the dominant perspective on innovation management and policy. --Fulvio Castellacci (Journal of Economic Issues)About the AuthorRichard K. Lester is Director of the Industrial Performance Center and Professor of Nuclear Engineering at the Massachusetts Institute of Technology (MIT).Michael J. Piore is David W. Skinner Professor of Economics and Management at the Massachusetts Institute of Technology. He is the author of several books, including, with Charles F. Sabel, The Second Industrial Divide.