

## **Democratizing Innovation**

Eric von Hippel, MIT Press, 2005, x + 204 pages, £19.95.

This is a wonderful book that should be read by innovators, both individuals and organisations, users of innovations, academics and policy makers interested in innovation and technological progress and managers involved in growth and innovation. Eric von Hippel answers questions such as where do innovations come from? Who does them? How are they done? At what scale? Do users get the innovations they want and do producers make any money from them? Innovation, von Hippel persuasively argues, is being democratized. Users, helped by improvements (better and less expensive) in computer and communications technology, can increasingly develop their own new products and services. This trend is clearly established in software and information products, especially in free- and open-source software. But von Hippel also includes other examples of user innovations including surgical equipment, surfboards and novel food products. An electronic version of the book is available under a Creative Commons license\*.

Von Hippel distinguishes between innovation processes which are centred on users versus producers. Using a wide range of case studies and data and a clear theoretical framework he turns much conventional thinking about innovation upside-down. Manufacturers such as 3M and application specific integrated chip producers have re-designed, and others should, their innovation processes systematically to seek out user innovations, particularly those by lead users who are at the start of more broad-based market trends. He makes a strong case that user innovation has positive social welfare implications and government policies, including R&D subsidies and intellectual property rights systems, should be re-designed to stop biases against it.

Chapter 1 is an introduction and overview of what is argued for, elaborated and illustrated in subsequent chapters. This chapter is really the concluding chapter, which happens to be at the beginning. In chapter 2, data and case studies are discussed which show that innovations developed by lead users tend to be commercially more attractive than innovations by others. It is shown in chapter 3 that user needs in many areas are heterogeneous and in some cases, many are willing to pay to get precisely what they need. Chapter 4 discusses how users decide to innovate themselves or get someone else (individual or organisation) to do it for them. Users and producers tend to develop different types of innovation, as shown in chapter 5. Users tend to develop innovations that are functionally novel and require a great deal of user-need and use-context information. In contrast, producers tend to develop innovations that are improvements on well known needs and require considerable solution information.

The next two chapters discuss why users often freely reveal their innovations and innovation communities. Chapter 8 considers social welfare and how government policies should be adapted to user innovation. Chapter 9 discusses how tools and innovation resources are becoming more widely available to users and how producers should adapt to users carrying out some of their traditional business activities. The next two chapters concern applications: how to find lead users and providing innovation tool kits to users. The concluding chapter links user innovation to the economics of knowledge literature, the competitive advantage of nations and the sociology of technology.

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\* Google von Hippel to find the web site.