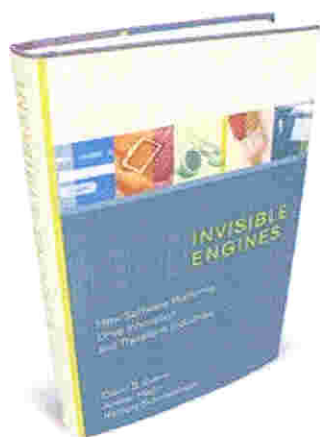


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**BOOKS****How Profits Launch From Platforms**By **OM MALIK**

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A couple of years ago, in the days before YouTube, a short video clip spread like wildfire on the Internet. It showed the fourth richest man on the planet, Steve Ballmer, the chief executive of Microsoft, doing a crazy jig onstage at a conference, screaming "developers, developers, developers." Truer words have never been spoken -- or repeated. Without "developers," Microsoft would not possess its desktop monopoly or billions of dollars in profits.



The right software and strategy can create their own thriving economic ecosystem.


Those developers are the little platoons of software programmers and product-inventors who turn operating systems (like Microsoft's Windows), Internet browsers (Firefox), game devices (PlayStation) and much else into something more than themselves -- into "platforms" upon which a whole economic ecosystem rests. It is impossible to imagine Dell Computer's success, or that of Intuit Corp. or even Electronic Arts (the videogame company) without the platform that Windows constructed with the help, so to speak, of Microsoft. Windows is but one example of many software engines that have propelled mega-billion-dollar industries and created wealth beyond compare. Just as the internal combustion engine led to the formation of the modern automobile industry and ended up driving so much else in the economy (think only of steel and gasoline), invisible engines are now powering the vast postindustrial economies in which we live and work.

Such is the persuasive thesis of "Invisible Engines," by David S. Evans, Andrei Hagiu and Richard Schmalensee. The authors document the rise of platforms, outline the strategies by which they are developed and marketed, and offer little-known details about popular devices -- Sony's PlayStation, Apple's iPod, Palm Treo -- that have become essential aspects of our modern lives.

There isn't a lot of human drama in "Invisible Engines" -- the authors lean toward the academically precise instead of the journalistically vivid -- but the prose is accessible, even engaging. And the shrewd analysis -- backed up by a great deal of research and a precise narrative of recent business history -- more than makes up for the lack of office politics and entrepreneur heroics. Any executive looking to turn his company's product into an engine of growth will want to consult "Invisible Engines."

One moral of the authors' story returns us, in effect, to Mr. Ballmer's own platform dance: Get the

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developers. The smart ones -- helped by luck and investment capital, among much else -- can make invisible engines rocket a company into the stratosphere. "Invisible Engines" offers iPod as an example.

Beneath its shiny veneer, iPod is nothing but a bunch of chips, a storage drive and a tiny piece of software that allows you to play music you buy from the iTunes music store. It is iTunes' jukebox software that allows you to download music into your iPod. But this simple-to-use technology required all sorts of small-step advances: e.g., the invention of "software-based algorithms" for compressing large digital audio files into small ones that can make their way easily into "computer networks and smaller devices"; the construction of data files, or "formats," for transporting and storing content; the development of encryption and tracking software that will monitor use (and permissions) for licensing purposes; and the creation of mechanisms on the receiving end that will "read" all this digital data.

#### DETAILS

##### INVISIBLE ENGINES

By David S. Evans, Andrei Hagiu  
and Richard Schmalensee  
(The MIT Press, 395 pages, \$34.95)



But of course it was the iPod itself, a hardware device, that proved to be the capstone to Apple's great success, delivering its technology in a simple, elegant form. The company has sold nearly 62 million iPod devices over the past two fiscal years, which in turn has attracted everyone from Bose to JBL to tiny start-ups. They build hardware,

write small applications and wire-up various networks. Like Windows on a PC, iPod has become a platform, and its developers keep on inventing devices and accessories (calendars, headphones, even leather jackets) and tiny add-on software applications that they sell to iPod owners. The crumbs at the iPod table add up to a mega-billion-dollar iPod economy.

As for platform-based profits, they may come in the form of licensing agreements or in free-standing arrangements. "Invisible Engines" suggests, in its many case studies, that this cascade of platform-pushed activity happens most often, and easily, when a product reaches 40% or 50% of market share, compelling the interest of spinoff businesses and making it profitable for outliers to customize and refine their products to an industry leader.

Lest this all sound too triumphalist, the authors document corporate strategies that have not won the day. As they show, Real Networks, a company that was ahead of Apple in many respects and at one time a technology innovator of the first rank, became a perennial also-ran. The reasons are many; among them: Real Networks "didn't have hardware in its genes" and thus lost out on the capacity to deliver its technology competitively. "Invisible Engines" also notes that today's platform success-story may not be tomorrow's: The rise of open-source operating systems, such as Linux, and of related technologies may make the harvesting of profits more difficult. Something for tomorrow's developers to think about.

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