



INVENTION'S GIANTS

HOWARD ANDERSON IS WRONG WHEN he says big companies can't invent ("Why Big Companies Can't Invent," *TR* May 2004). While big companies have had to adjust to the rapidly changing rate of innovation and market dynamics, some of them are adjusting quite nicely. Take the company I recently retired from: IBM. When wireless technology emerged, a group of IBM "intrapreneurs" came together to take advantage of IBM's Research division. As a result, revenues for wireless e-business services catapulted from \$300 million to \$2.4 billion within two years. The group that accomplished this navigated internal barriers and was not preoccupied with compensation. They realized that failure does not necessarily lead to the demise of the company, as it can with startups. To put it in terms of Anderson's metaphor: large companies realize that attack is the best form of defense!

*Permindar Bindra
Patterson, NY*

I NOTICED SOMETHING STRANGE ABOUT the May 2004 issue. First you have an article about how big companies can't invent, and then the very next article is about Microsoft reinventing the pen ("Microsoft's Magic Pen"). If this pen starts selling well, which it probably will, then maybe it shows that big companies *can* invent.

*Zack Green
Syosset, NY*

"If this pen starts selling well, which it probably will, then maybe it shows that big companies *can* invent."

The editors respond: We tried to air many viewpoints on the changing nature of invention in our issue. Anderson's essay expressed his opinion. Not everyone, including most big firms we know, agrees.

THERE IS ANOTHER REASON WHY research and development in a big company can be wasteful. Corporate R&D is logical and efficient while invention is chaotic. It is much more efficient for a corporation to let the little companies explore every crevice. Then a smart corporation buys the results or even the company that has stumbled into improvements on the corporation's products. Take, for example, the expansion cards for the IBM PC. IBM introduced the PC with few such cards already installed. The company knew it couldn't divine the market, so it simply produced a viable open platform and waited. Modems took off. IBM introduced one. Clock calendars took off. IBM introduced one. Why waste money and energy on technology development and market research? Wait, watch, and buy or copy.

*Steven D. Edelson
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MULTIPLE MAGIC PENS

GREGORY HUANG'S LOOK INSIDE Microsoft's Beijing lab was fun but left me wondering how Microsoft's pen compares to other digital pens ("Microsoft's Magic Pen," *TR* May 2004). Microsoft's pen and

patterned paper seem very similar to Anoto's pen and patterned paper. What's different about Microsoft's pen?

*Duncan Lissett
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The editors respond: What is unique about the Microsoft pen is its software. When a user prints out a document, the software encodes it with a background pattern that lets the system know where the pen is as it marks the paper. The user can then modify the digital file by writing on the hard copy. Digital pens on the market don't modify existing printed documents in this way. But Anoto and its partners are developing similar technologies.

A LICENSING LEARNING CURVE

I RECENTLY FINISHED READING *THE Chip: How Two Americans Invented the Microchip and Launched a Revolution*, by T. R. Reid, published in 1984, about the conception, development, and marketing of the microprocessor. It describes how U.S. firms take the lead in developing new technologies, only to see themselves overwhelmed in the marketplace by foreign manufacturers. Why? Because they license their critical technologies to the very firms who then build successfully on those technologies. That was 20 years ago. Now I read in your May issue that both InPhase Technologies and Aprilis will be licensing their new holographic storage technologies to Sony and Sanyo to bring to market ("Holostorage for the Desktop," *Innovation News*). For all the alleged brainpower in this country, we don't seem to learn very quickly.

*James L. Hall
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CORRECTION: Our story "Sparking the Fire of Invention" (*TR* May 2004) should have said that foreign entities will likely account for the majority of patents granted, not patents filed, from 2004 onward.

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