

IT Doesn't Matter

An article by Nicholas G. Carr published in the Harvard Business Review in May 2003 available online at <http://www.hbsp.harvard.edu>.

Article Analysis #3

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August 11, 2003

Article Abstract

Businesses currently spend \$2 trillion each year on Information Technology (IT), often times accounting for 50-percent of their annual capital expenditures (IT spending accounted for 5-percent of capital expenditures in 1965, 15-percent in the early 80s, and 30-percent in the early 90s). Many companies make these investments in IT with the hope that they will afford them a strategic advantage over their competitors. Mr. Carr proposes that IT has ceased to be the strategic advantage creator that it once was and that companies need to sit up and take notice of this fact before its too late. Why is IT no longer the creator-and-sustainer of strategic advantage? Because, Mr. Carr proffers, IT has become a commodity and no commodity in history has allowed a business to create a competitive advantage.

Major Points of the Article

Company executives regularly speak about the 'strategic value' of IT and how they can use IT to increase their competitive advantages. Many companies have even attempted to 'digitize' their business models by using IT. Mr. Carr believes that this thinking is based upon an assumption that "as IT's potency and ubiquity...[increases], so too has its strategic value." Mr. Carr believes that this is a faulty point of view. What makes this assumption wrong, in Mr. Carr's opinion, is that "what makes a resource truly strategic—what gives it the capacity to be the basis for a sustained competitive advantage—is not ubiquity but scarcity." For a large portion of companies in the world (and just about all companies in this country) core IT functions (data storage, data processing, and data transport) have become readily available and affordable. IT has become simply a cost of doing business that "must be paid by all but provide distinction to none."

Mr. Carr goes on to distinguish between 'proprietary' technologies and 'infrastructural' technologies. Proprietary technologies are those that can be actually or effectively owned by a single company. For an example, a pharmaceutical company can hold a patent on a compound that is the building block of a "family" of drugs. Proprietary technologies can form the foundation for a long-standing competitive advantage as long as they are protected, and can enable individual companies to make a lot of money.

Infrastructural technologies, however, “offer more value when shared than when in isolation”. In the early stages of build-out, an infrastructural technology can provide companies with a strategic advantage in the near-term. “As long as access to the technology is restricted—through physical limitations, intellectual property rights, high costs, or a lack of standards—a company can use it to gain advantage over rivals.” Executives often make the mistake of believing that these advantages will be available indefinitely. Once a technology’s potential is appreciated, investment capital will follow, and the build-out will accelerate exponentially, thus closing the strategic advantage window of opportunity.

Mr. Carr believes that IT is a perfect example of an infrastructural technology. Like other infrastructural technologies (such as railroads), IT is a transport mechanism that carries digital information. Again, just like railroads, it is “far more valuable when shared than when used in isolation.” Many IT functions are highly scalable and, when combined with technical standards, become highly replicable. For these reasons, IT prices are subject to rapid deflation. “The cost of processing power has dropped...from \$480 per million instructions per second (MIPS) in 1978 to \$50 per MIPS in 1985 to \$4 per MIPS in 1995.” IT’s evolution has mirrored that of early infrastructural technologies. As with other infrastructural technologies, “IT provided forward-looking companies advantage early in its build-out, when it could still be owned like a proprietary technology.”

Mr. Carr also believes that opportunities to gain IT-based advantages are beginning to dwindle. “Best practices are now quickly built into software or otherwise replicated. And as for IT-spurred industry transformations, most of the one that are going to happen have likely already happened or are in the process of happening.” This concept is based on several factors: IT’s power is ‘outstripping’ most of the business needs it fulfills, the price of essential functionality has dropped to the point where is almost affordable for all, the capacity of the Internet has caught up with demand, and IT vendors are beginning to position themselves as commodity suppliers “or even as utilities.”

Finally, Mr. Carr proposes three ‘new rules’ for the management of IT: First of all, spend less. Studies are referenced that show that the companies with the biggest IT investments “rarely post the best financial results.” Second, follow—don’t lead. “The longer you wait to make an IT purchase, the

more you'll get for your money." Third, Focus on vulnerabilities, not opportunities. Prepare for IT vulnerabilities by planning for "technical glitches, outages, and security breaches."

Article Analysis

I believe that Mr. Carr makes several good points in his article as well as some that are faulty. The first point is that businesses (and individuals, as a matter of fact) have over-invested in underutilized PCs. IT managers and home PC users often feel the need to be on the bleeding edge of PC technology. Ever time Intel releases a new Pentium chip, Microsoft releases a new version of Windows or Office, or RAM prices drop, businesspeople rush out and replace their old PC, hoping to become more productive. The vast majority of businesspeople and home users alike use a very limited number of programs the vast majority of the time: word processors, spreadsheets, email applications, and web browsers. Moving from a 1.8 GHz processor to a 2.4 GHz processor will not make these applications run faster or better nor will moving from 256 MB to 512 MB of RAM noticeably improve an Internet browsing session. Still, every day millions of computers are purchased with just these types of thought in mind when businesses could put these monies to better use elsewhere in the operation.

Mr. Carr also points out that businesses have overestimated the strategic value of IT. I agree that businesses should manage the tangible aspects of IT as a commodity because the opportunities for 'strategic differentiation' with IT have become so scarce. I do not believe, however, that Mr. Carr is claiming that IT is not important, but that the ability to be used for strategic differentiation has greatly diminished. I believe that Mr. Carr has, perhaps, over-stated the fact that IT holds no strategic value at all. I think that the case would have been better stated to say that IT by itself holds not strategic value rather that IT creates possibilities that have not existed before and that do hold strategic value. IT may be ubiquitous, but the creativity and insight necessary to use existing IT services best or the forward-thinking necessary to create new uses for IT are not. I believe that, in order to harness the strategic value of IT that is available, managers must cease looking for a quick, big bang, affect on their businesses. Innovative, long-term use of IT best practices can provide companies the strategic differentiation they continue to look for. Businesses must continue to be mindful when it comes to looking

to IT for strategic advantages: why spend so much money implementing a technology that common sense tells you will be outdated long before the project is finished?