IT Does Matter

For those of you who may have missed it, the following is my response to Nicholas Carr's widely read and quoted article in the May 2003 issue of the *Harvard Business Review*, entitled, "IT Doesn't Matter." Carr presents a reasonable and persuasive argument that the era of IT as a strategic technology is over, and that companies should cut back on their expenditures and concentrate on defensive measures to keep their IT infrastructure running. The crux of the piece, which appears in paragraph four, is concisely stated: "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."

IT, the author asserts, is a ubiquitous resource available and affordable to all, and has therefore lost its power to provide competitive advantage to companies. He cites analogies with other infrastructure technologies of the past such as electricity and railroads to make his case compelling. But his premise is troubling, and it leaves me with three questions:

- Do companies ever achieve a "sustained" advantage?
- Is one resource—IT in this case—ever the basis for an advantage, or only one component among many?
- And finally, is IT the same kind of thing as electricity or the steam engine, or is it something inherently different?

Sustainable Advantage

Let's look at the first question: how sustainable is any advantage? Take the distinction between proprietary and infrastructual technologies. In the former, as mentioned by Carr, patent protection provides a degree of exclusiveness in which to exploit an advantage. This ought to provide longer protection than an advantage from an open technology. Yet, today the organization of invention gives few companies much time, if any, to achieve a "sustainable" advantage. Drugs that are patented and have significant market possibilities are quickly followed by competitive offerings. A good example is the case of cholesterol-controlling drugs called statins. When the first statin, Mevacor, was released in 1987, it became one of the largest selling drugs in its class. It was followed by Pravachol in 1991, Zocor in 1992, and Lipitor in 1994. Merck, which brought Mevacor to market, had only four years before a competitor followed—yet the company is still the leader.

There are many such examples. They teach us that "sustainable" may not be necessary for competitive advantage, but that being first may (but not always) be more important.

With IT today, can a company assemble easily available components to change its business model, products, or services to achieve a temporary advantage, and thus establish itself as the 'first' in some area? Yes, but other components are necessary.

Gerald D. Cohen, Information Builders President and CEO

One Resource vs. The Sum of Parts

What it takes to innovate in any area is imagination and management. The harnessing of any technology, say IT, behind an idea makes the idea possible, but without a market vision, proper execution, and the staying power to prevail, no competitive advantage will result to the innovator, and followers will replace the first

mover. We have many cases of a technology being available to all, yet other factors are what provided the competitive advantage. Take FedEx, for example. The technology in place sounds simple: airplanes fly packages around the country. And like IT, the technology is in an area with a large built-out infrastructure. Anyone could have used this technology, but it took insight and expertise to put all of the components together. Can we predict that companies will find something in IT that they can combine with their other strengths to find an area to change a market? If the answer is yes, then it implies that technologies past their infrastructure-building phase can still provide competitive advantage. IT should be no different.

Is IT Different?

Carr assumes that IT, in becoming ubiquitous, has built an infrastructure akin to railroads and electricity, which are now easily available to all. The Internet is up and running, and there is more fiber optic capacity than currently needed. All railroads today have the same rail gauge, and all electricity comes in AC or DC with standard voltages and cycles. Is this true with the processing and distribution of data in IT? Hardly. We have many different kinds of computers, all of which operate differently; for example, Microsoft NT, Sun Unix, and IBM mainframes, which cannot share information natively. There are many different languages, protocols, and conventions. There is no uniformity at all. If uniformity is the telltale sign of the end of an infrastructure build-out phase, then Carr has called the game over too soon.

The Digital Future

Carr speculates towards the end of the article that in terms of business strategy, the "digital future" may have already arrived. He advises companies to slow down in their purchase of IT and spend more on taking care of the investments they already have, ensuring that their IT stays up and running. No one can argue with the risk and penalties of losing connectivity when businesses are so interconnected with each other.

But what about slowing down IT investments? Prudence in all investments is always a good idea. During the dot.com era, the fear of being 'Amazoned' was a potent impetus for hasty spending. Yes, too much was spent, too early. But are we swinging too far in the other direction? Hanging onto the old IT investment may be just as disastrous.

Competitive advantage comes in many guises. Jet Blue Airline, for example, has the lowest cost per seat in the industry, and it also has the most uniform, integrated, low-cost IT structure and vision that is far ahead in automation than anyone else in the airline industry. The others won't catch up without using IT as a significant component. Will they switch to a defensive IT strategy when their passengers are waiting in long lines? The airlines are not alone in the need for better technology.

Finally, it seems to me that the two measures Carr uses to position IT at the end of its creative phase, the degree of 'standardization' and quantity of built-out infrastructure, are defective. Clearly if we use 'standardization' as the measure of how close IT is to being a commodity, then we have quite a distance to go yet. There has been tremendous investment in communications and fiber-optic cable, and its over-capacity is a classic signal of a 'bubble' signaling that the technology is now a commodity. But just as the railroads on fixed tracks found themselves competing with trucks on asphalt highways in an expanded transportation industry, we must assume that fiber optics is not the end of the investment. Wireless communication, for example, is just beginning, and the merger of communications and computing has just begun to penetrate our everyday lives. The use of an HTML browser, instant messaging, and email is probably as primitive today as the early cat's whisker radios of the early twentieth century were—compared to what will follow.

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Carr's advice at the end of his article uses an infelicitous word: He says, "IT management should frankly become boring" and thus not aggressively pursue IT-based advantages. Boring is not a way to foster a culture of innovation. Management that follows this advice will be on the far end of a disastrous pendulum swing. And they'll be left reading the next *Harvard Business Review* article on how they failed to keep up with changing technology.