

CHECK AGAINST DELIVERY

REMARKS for DAVID AKIN

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Good morning -- and thanks very much for inviting me to speak.

I want to respond today to a challenge that has been thrown out to the industry in a very prestigious forum, in the Harvard Business Review. In its May issue, a writer put forward the proposition that IT Doesn't Matter. I think it does matter -- and you probably do, too -- so I want to respond to that challenge.

The piece was written by Nicholas Carr who was the editor-at-large at the Harvard Business Review. He's now a freelance writer. He's a smart guy. And his thesis -- that IT doesn't matter - is getting a lot of attention. So does it matter? Does IT matter? It's an important question to ask from time to time. And I think, because we're in the business, it would probably take us about two seconds to shrug and say, of course IT matters.

But there's a lot of CEOs and chief financial officers around the world, maybe at your company, who read the Harvard Business Review. They might not shrug off Carr's thesis so quickly. They might be coming into your office this afternoon to ask you if IT matters, if you could live without 10, 20 or 30 per cent of your IT budget this year. Even some tech industry heavyweights are siding with Carr. Larry Ellison at Oracle and Eric Schmidt at Google have voiced variants of this idea that companies may be spending too much on IT. So this is an important question and it's important to do some clear thinking around this issue.

Are we spending too much?

In 1965, U.S. companies spent less than 5 per cent of their capital budgets on information technology. The personal computer was introduced in the 1980s and spending on IT as a percentage of overall capital budgets rose to 15 per cent. By the middle of the 1990s, we were at 30 per cent. Now, even with recent downturn, if a large company has a capital budget, odds are that 50 per cent of that budget is being spent on I.T. -- that adds up to about \$2-trillion a year.

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So what did Carr say?

Well, first of all, Carr says the strategic importance of IT has diminished. An asset, he argues, is strategic if it gives you the basis for a sustained competitive advantage. An asset must be scarce to have that quality, he says, not be ubiquitous. You win if you can do something your rival can't. But everyone can afford IT nowadays. Everyone's got EMC doing storage and Nexxia running the network and IBM doing the heavy processing. Right?

Here's what he said in a recent conference call I was on with him:

"can IT be the basis for achieving higher profitability? That answer, increasingly, is no, IT doesn't matter."

For Carr, IT is just the latest in a string of technological advances stretching back to the steam engine and electricity that will eventually become so ubiquitous as to become invisible.

Now Carr does make the distinction between a proprietary technology -- such as the technology a drug company might have to extract a life-saving drug from a plant -- and what he calls infrastructural technology -- the Internet being the best example. Technology often starts out as the property of one or small group of companies but can evolve into something that become more like an infrastructure or publicly available technology.

What are the factors that help that evolution from private property to public infrastructure?

Carr lists a few

- Physical limitations on the use of that technology begin to disappear;
- the intellectual property rights are either non-existent or the holders agree to put those rights in the public domain or license them at terms everyone can use
- the costs of the technology drops
- and -- and here's the biggie I think -- it becomes a widely adopted standard.

It is possible, Carr says, for companies to get a leg up on competitors by having better insight into the use of a new technology. And of course, there's no shortage of folks -- myself included -- who are happy to provide that insight. But I think one of the most encouraging trends we've seen over the last few years is the recognition of the value of a chief technology officer within a corporation -- someone who knows the business of that company

inside out – retailing, mining, insurance or whatever it may be -- and is paid to search out new technologies and evaluate how they might fit into that company's business next month, next year or next decade. Recently, I was at a breakfast meeting in Toronto and the guest speaker was David Wallace, the recently appointed chief technology officer for the Province of Ontario. I was heartened to hear that even our provincial bureaucracy had someone who was thinking about the effect of everything from grid computing to nanotechnology on the delivery of provincial services. But that, of course, is what a CTO ought to do: he or she ought to be the most forward-looking executive in the c-suite, constantly searching for new technologies that will, even if only for a short period of time, provide a leg up on competitors.

Now, Carr has a warning about this. He says executives wrongly assume that the competitive advantages afforded by the strategic use of new technology will last indefinitely. They won't and they don't. In his view, in fact, the window of opportunity to be the first firm in a sector to adopt a new infrastructural technology is very brief.

Carr has one important distinction to make about infrastructural technologies. While their influence at the firm level quickly subsides over time, they are very important at the macroeconomic level. Indeed, this is something that the Conference Board of Canada has pointed out when trying to explain the productivity gap between Canada and the United States. U.S. spending on information technology as a percentage of GDP is significantly higher than any national economy in the world. The Conference Board of Canada has suggested that Canada can shrink the productivity gap by spending more, as a percentage of GDP, on technology. If that is a national policy goal -- and it seems to be one that has some broad consensus among policy makers and industry leaders -- it will be up to individual firms to push that idea forward. That can happen through industry roundtables such as Industry Canada's e-commerce roundtable is a good example of that. It can happen through the support of national telecommunicatins policies, through the support of national standards-setting bodies.

But Carr's thesis hinges on the idea that IT products -- computers and other hardware -- and now even IT services are increasingly being sold as commodities. With that he means that there is little qualitative difference between a PC from Dell and a PC from

Hewlett-Packard or a white label manufacturer. Vendors of commodity products have relatively little control over the prices they can get from the products; consumers have a wide choice of vendors and tend to make purchasing decisions based on price. The trend towards commoditization is already well established in the hardware business. But services, too, are becoming increasingly commoditized. One of the new competitive battlegrounds for Hewlett-Packard and IBM, for example, is in a new kind of service offering -- the utility offering. You'll buy and pay for processing power and storage just as you pay for electricity. You won't own the computing facilities, you'll just jack in and consume CPU cycles or bytes of storage as required and pay for them on a metered basis. Utility services are made possible by great homogenization of IT services which in turn is made possible by the ever-increasing use of standards -- XML, SOAP and so on -- that make interoperability possible. Look for more vendors in the utility computing space -- some from non-traditional areas -- telecommunication companies like Bell or Telus, your local hydro utility, maybe even your cable company.

This trend towards utility computing is one sign for Carr that the buildout of an IT infrastructure is largely complete -- in North America at least. Here are his other indicators:

- IT power is outstripping most of the business needs it fulfills.
- The price of essential IT functionality has dropped to the point where it is more or less affordable to all.
- The capacity of the Internet -- a universal distribution network -- has caught up with demand.
- The investment bubble has burst, a historical indicator that a buildout is largely complete.

So what does this all mean for CIOs and CTOs?

Well, Carr says it's time to play defense and not offense. He says companies should focus on managing risks -- risks of failure, outage, and so on -- within their own IT environment rather than worrying about the next big thing. Here I want to lift a quote right out of his paper:

"Today, no company builds its business strategy around its electricity usage but even a brief lapse in supply can be devastating. The operational risks associated with IT are many -- technical glitches, obsolescence, service outages, unreliable vendors or partners, security breaches, even terrorism -- and some (of these risks) have become magnified as companies move from tightly controlled proprietary systems to open, shared ones. Today, an IT disruption can paralyze a company's ability to make its products, deliver its services, and connect with customers, not to

mention foul its reputation. Yet few companies have done a thorough job of identifying and tempering their vulnerabilities. Worrying about what might go wrong may not be as glamorous a job as speculating about the future, but it is a more essential job right now."

Carr goes on to say the biggest risk to firms is overspending on tech. Carr cites some studies which suggest that greater spending on IT rarely results in better bottom line performances.

Carr quotes from a study by the consulting firm Alinean which looked at the IT expenditures of 7,500 large U.S firms and their financial results. He found that the 25 firms with the best financial performance spent an average of 0.8 per cent of their revenues on tech stuff. The average across the 7,500 firms was 3.7 per cent of revenues. Carr's takeaway from that is that spending heavily on IT does not guarantee improved financial performance.

What is important he says is that companies must be able to separate essential investments in IT from ones that are discretionary, unnecessary or even counterproductive. That means more rigour is going to be required in evaluating returns on IT investments; more creativity will be required when it comes to examining alternatives; and companies must be more open to partnerships and outsourcing. Focus, Carr says, on vulnerabilities and not opportunities.

So what are we to make of Carr's thesis? Well, as I said earlier, the questions he raises are important ones. Companies should constantly re-examine their IT budgets. That's just good sense. But I'm not sure Carr has completely convinced me, particularly when it comes to his overall thesis that we are at the end of the buildout of some key infrastructural technologies. There is still a lot of work underway and a lot of that work will offer first-mover advantages to companies that can use technology strategically and thoughtfully.

I was telling my wife about Carr's idea, saying that he figures the buildout of the Internet is largely complete – it's cheap, it's available to any business that wants it – and my wife's response was: Well, how come companies don't know how to use it right? We're travelling by car to Thunder Bay this summer and she'd just spent the day trying to price-shop motels in Sault Ste. Marie and it was a pretty frustrating experience for her.

So that's my wife; Here's what Steve Milunovich, the top tech analyst at Merrill Lynch in New York has to say about Carr's thesis:

"Applying IT to gain competitive advantage is like beating the stock market. Some will succeed, which proves it can be done, but most will not. ... Nick [Carr]'s focus on the ability to differentiate with technology is important. Tech is usually an accelerator of other strategies that are more important in providing strategic differentiation."

I like that take on things. I think it recognizes that the IT supports other business functions – it helps win and keep new customers, it helps drive costs out of the system. It doesn't exist for its own sake – and I know a lot of IT departments that think the business exists so it could employ IT managers – instead it exists to support a business. And the build out continues of all sorts of computing and telecommunication tools business IT managers can choose from to help with that support.

So what are some of the technologies, some of the new tools, that are emerging that offer companies the chance to strategically differentiate themselves.

Well, here's a couple – although there are lots more:

- web services
- .Net or XML
- Voice Over IP
- Wireless LANs and Wi-Fi
- radio frequency identification or RFID,
- enterprise portals
- enterprise content management

There's probably plenty of others. The point is that for all of these areas we have some emerging standards, we have increasing downward pressure on pricing for all of these technologies, we have some commoditization here -- all of those factors Carr highlighted as indicators that a technology has reached the point of irrelevance. And yet, it seems obvious to me as both a customer and a journalist chronicling the industry that there is still many opportunities for companies across many industries to harness some or all of these technologies, to gain a strategic advantage over their competitors.

Some technologies like RFID -- offer tremendous opportunities to help cut costs further and make supply chain management even more efficient. Wal-Mart for instance is looking at putting RFID chips on all -- let me repeat - all the products it sells. These are ultra cheap radio-transmitters that can be affixed to just about anything that simply send out a pulse with some ID codes in it. With these RFID chips Wal-Mart and its suppliers will better track inventory from the distribution centre right through to checkout. Wal-Mart will see immediate savings by reducing the amount of inventory it loses through internal theft or --- to use the industry's favourite phrase -- shrinkage and shoplifting.

Enterprise portals are another big deal. Just as like technology like RFID can help a business cut costs, enterprise portals can help grow revenue by finding and keeping new customers and partner.

I mentioned David Wallace, the chief technology officer for Ontario. His big push right now is a "no wrong door" policy for government portals. Ontario, of course, is a monstrously large and diverse enterprise and so this is a big challenge -- the idea that users of provincial government services can quickly and efficiently access Ontario services from any online entry point and not just www.gov.on.ca . But for Wallace and CTOs of other public sector organizations it goes beyond that. CTOs are working on plans that would let Canadian citizens access any government service -- municipal, provincial or federal from any point within the online homes of any government. Again, here's a massive technology challenge -- just think about authentication and privacy protocols across various organizations and different back-end systems -- but a challenge with tremendous opportunities -- to make access to government services easier for all to use and to help drive down the costs of providing those services to all. That would be one whopper of an enterprise portal.

So I'm glad Nick Carr and others are challenging our assumptions about IT and about how corporations spend money on IT. IT does matter. It offers tremendous opportunities for firms to boost productivity. The challenge is to be smart about it; to constantly re-assess priorities; and to remember why your company is in business in the first place.

Thank you for your time.