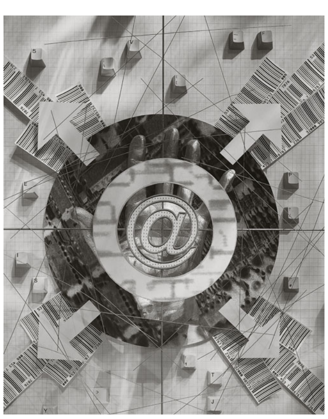
Much ado about IT: a response to ''the corrosion of IT advantage'' by Nicholas G. Carr

Betty Vandenbosch and Kalle Lyytinen

Betty Vandenbosch is Associate Professor of Information Systems and Associate Dean of Executive Education Programs, and Kalle Lyytinen is Professor of Information Systems, both at the Weatherhead School of Management at Case Western Reserve University, Cleveland, OH, USA.



Over the past three decades, a great deal of advice has been proffered in both the managerial and academic press about how information technology (IT) can add business value and help organizations become more competitive. It has been widely held that IT has the potential to create competitive advantage. And then along comes Nicholas Carr. The main premise of his article in the last issue of the *Journal of Business Strategy* (Vol. 25 No. 5) and the book from which it is excerpted (*Does IT Matter?*) is that IT is a mature technology. It has become a commodity and, as a consequence, corrodes competitive advantage as it automates functions throughout an organization. This corrosion is the result of best practices more and more rapidly turning into universal practices and traditional sources of advantage drying up. Carr's arguments have met with many varied responses. They have range from applause and cool assessment to rage and furious attacks.

Carr's claim is revolutionary when we consider that, in the US, over 50 percent of all capital investments made in 2004 are expected to be IT investments. Are companies really investing over half of their capital expenditures without any hope of influencing their competitive positions? Carr would probably say no, as there are always investments that are not instrumental to achieving competitive advantage but can be instrumental to losing it if not made. But there is more to this story. We believe that Carr's analysis, though well written (especially the end of his book which calls for careful analysis and common sense in IT investments), draws upon a straw man argument. It is based on analogy and gross simplification of the nature of IT investment.

First, Carr argues that IT has become a commodity, much as railroads and electricity became in the past, and therefore it cannot possibly produce competitive advantage. This argument hinges on two assumptions which are never justified: (1) IT really is analogous to railroads or electricity; and (2) IT truly has become a commodity. On both counts we do not wholly agree. In some respects IT has followed the S-curve path of earlier technological innovations, but that does not imply that all technologies are similar or have similar impacts on firms' performance.

IT is different from earlier technologies in two fundamental ways. First, its growth and change potential is unprecedented and still continues, and second, it is the most versatile and flexible technological platform the human race has ever created. The information technology in Word processing software is very different from the Amazon's e-commerce platform, which is very different from the genetic algorithms used to explore the structure of molecules. The context, the task and the nature of their impact is so different among these information technologies that it is naive to consider them together. Hence, it is not clear what the claim that IT is similar to

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> “The successes of SABRE and American Airlines in the 1970s and the success of American Hospital Supply in the early 1980s were not the result of IT investments alone, but their managements’ skilful configuration and integration of many capabilities, including IT.”

electricity means. Electricity has always just been electricity. It is used for different applications, but these are not called electricity.

True, as Carr claims, there are many IT applications such as office systems, simple business applications and some large software products such as enterprise resource planning (ERP), which have become commodities along with major components of hardware and system software. But this does not mean that all uses of IT have become commoditized, nor that IT can be easily copied and applied across different contexts. Let us take two examples: Google and Amazon. Both of these successful, new economy companies run their IT on totally commoditized platforms (Intel and LINUX), but the IT solutions that enable their competitive edge are not commoditized. They are carefully protected technological innovations that have guaranteed leadership positions to both companies in their respective industries.

Although Carr states that IT investment is more than just pouring money into increasingly commoditized hardware and software, he maintains that true competitive advantage is elusive and IT alone is not sufficient to achieve it. Firms can be more competitive through IT only if it is an integral part of their general business strategies. To illustrate, he discusses two extremely successful organizations, Dell and Walmart, and explores how IT helped them achieve competitive advantage. We find nothing new in his argument. The successes of SABRE and American Airlines in the 1970s and the success of American Hospital Supply in the early 1980s were not the result of IT investments alone, but their managements’ skilful configuration and integration of many capabilities, including IT.

What Carr also fails to do is emphasize how much more important IT has become as a consequence of its ubiquity in executing successful business strategies. In fact, no organization can afford not to have IT as an integral part of any strategic initiative, as shown by current levels of IT investment. It is not an accident that Dell and Walmart have experienced none of the IT development debacles that seem to be endemic to many organizations. The ability to develop IT successfully and align it with business strategy has become one of the key differentiators of successful companies. Some organizations no longer distinguish between IT and strategy, but talk about improvements in business capabilities and processes (by which they mean investments in both IT and associated business processes and tasks).

There has always been some *hubris* associated with competitive advantage in the IT press, which Carr rightfully criticizes. Gaining competitive value from IT has always been challenging and will remain so. Only organizations that really understand how to use IT to derive value will be successful with it. We worry however, that telling people that they won’t obtain competitive advantage from IT will lead them to pay less attention to it, leading to worse results, and a self-fulfilling prophecy. IT will indeed become incapable of contributing to competitive advantage.

On page 92 of his book, Carr writes, ‘‘Executives need to look well beyond the relatively narrow confines of IT management – to the very heart of how they think about business strategy.’’ Unfortunately, many executives will do just that and neglect IT entirely, resulting in outcomes that we have seen many times in the past: failed IT investments. Although IT professionals beg to be considered integral to the operations of their organizations, even in 2004, many are still relegated to subservient positions, reporting to the VP of finance or administration. Even the title of chief information officer has not enabled many IT professionals to be considered equal members of the senior management team. At the same time, CIOs often get blamed when IT projects do not directly and quickly affect the bottom line even though efforts from other areas of the organization such as sales and production may be equally or more to blame.

Carr labels Dell and Walmart exceptions because of their steady focus and deliberate actions, including viewing IT as an integral part of the business strategy. All competitive advantages are the exception. Most firms have not attained them and those who do not pay close attention to IT never will. In fact, it is very difficult to find examples of large scale strategic successes and failures in the past decade in which IT was not a contributor to the result. Yet, managers still separate managerial and organizational issues from technical and IT issues rather than analyzing them as a whole. This can be attributed both to the technophobia of some circles of management and to the technohype in the IT press. Unfortunately, by promoting the assertion that IT by itself does not lead to competitive advantage and therefore IT does not matter, Carr will ensure that success and competitive advantage remain elusive.

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Strategy, Competition, Competitive advantage, Information technology, Automation, Processes

Both line and IT executives and managers must focus on the interrelationships and dynamics between new IT capabilities and organizational opportunities rather than focusing on IT and the business separately. By asserting the need for bifocal vision, Carr moves the dialogue in this direction but his argument to convince us of this need is spurious.