



Steven Pearlstein

Business Columnist

Economy of Scale Might Inspire Companies to Ditch IT Departments

By Steven Pearlstein

Washington Post
Wednesday, November 30, 2005; Page D01

Among the technorati, journalist Nicholas Carr is infamous for his 2003 article in the Harvard Business Review declaring that information technology was no longer a significant source of corporate competitive advantage. Carr's assertion challenged not only the received wisdom from a generation of strategy consultants, but also the marketing campaigns of every hardware and software vendor and thousands of newly minted "chief information officers."

While Carr may have overstated his point a bit, it was well received by chief executives who always suspected they were spending too much, or getting too little, out of all those expensive technology investments they approved.

Now Carr is back with an equally controversial notion -- the death of the corporate IT department -- that he launched in the spring issue of MIT's Sloan Management Review and is now peddling in speeches to business groups and industry conferences.

For years, economic historians have drawn the parallel between the productivity revolution spurred by the development of electric power at the turn of the 20th century and development of computers and the Internet at the turn of the 21st. Carr simply builds on that analogy.

In the early years of electricity, he notes, manufacturing companies generated their own power from dynamos they purchased from General Electric or Westinghouse. But in the 1890s, Samuel Insull, an adviser to Thomas Edison, came up with the insight that he could provide electricity more efficiently, even for the biggest users, from centralized plants that realized economies of scale. The company he founded, Chicago's Commonwealth Edison, would become one of the country's biggest and most successful enterprises, lowering the price of electricity and serving as the model for the power industry for more than a century.

Now, Carr predicts, the same transition is coming to the world of information technology. Instead of each company buying, maintaining and upgrading its own hardware and

software -- most of which are remarkably similar from one company to the next -- it will buy computing services from a utility-type company, paying for only what it uses while enjoying the lower costs that come from scale economies.

Carr argues that the current setup is rife with inefficiency and excess capacity, citing studies showing that the typical corporate data center uses, at most, only a third of its available processing power while more than half of its storage capacity is wasted. And if you are the typical employee, you use just 5 percent of the computing power of that PC on your desktop.

It was only 20 years ago when everyone was sure that computing would become increasingly decentralized -- out with the old mainframe and in with the personal computer, which would become ever more powerful with each generation of computer chip. Now, however, the swing to centralization is driven by the new economics of the Internet and dirt-cheap communication, and technological advances that make it easier for different programs and operating systems to work with each other and allow large numbers of servers and disk drives to effectively act as one big computer.

In essence, the trend toward centralization began back when Ross Perot first persuaded a corporation to "outsource" its IT department to his new company, EDS. And even before Carr's article appeared, companies like Sun and IBM were already peddling early versions of a utility-type service, renting out processing and storage capacity for a fixed unit-price. Sun is even setting up an online auction of excess computing capacity. MCI's Digex unit, meanwhile, has been targeting small and mid-size companies with data centers that use shared hardware and software in a utility-type arrangement.

Microsoft, meanwhile, is about to introduce a new generation of products -- Web 2.0 and Microsoft Live -- that essentially embraces the utility model by allowing users to buy into software over the Web rather than installing it on their own computers. And what is Google, after all, but a giant computer utility providing search capabilities and now a growing set of services to huge numbers of customers?

All this has profound implications for the type and quantity of equipment that will be sold, and how it will be priced. And, not surprisingly, the industry has largely pooh-poohed Carr's thesis and thrown up all sorts of reasons why things won't -- or shouldn't -- develop in that direction.

I suspect, however, that Carr is on to something, and that there will be an important place in business history -- and the Forbes 500 list -- for whoever figures out how to become the Insull of computing. An equally intriguing question is whether he'll be a Sam or a Sanjay.

Steven Pearlstein will host a Web discussion today at 11 a.m. at washingtonpost.com. He can be reached at pearlsteins@washpost.com.