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The Big Switch

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Nicholas Carr’s *The Big Switch*

Review by Jeffrey Barlow


Nicholas Carr, the author of *The Big Switch*, wrote in May 2003 a controversial essay, “IT Doesn’t Matter” in *The Harvard Business Review*, [1] then in 2004 extended the analysis in the book, *Does IT Matter?* [2] His argument, reduced very simplistically, was that initially IT (Information Technology) did matter a great deal, because early business adopters achieved numerous competitive advantages in their operations. But as it became more widespread, IT simply became a necessity; everybody had to have it. Not having it was a spectacular, even fatal competitive disadvantage; but having it was nothing special.

This argument, of course, was not particularly welcome to many .com firms, industry savants, and manufacturers, simply because it reduced what they preferred to think of as a magic bullet, worth any price in the war against competitors, to the level of a pencil. “Nice tool, but hey, everybody has one.”

Carr’s argument also kicked off a very heated round of debate which much increased our understanding of the regards in which IT did, and did not, matter. [3] Any new book by Carr, then, is well worth examining. He has a very strong track record as an analyst and his ideas are both provocative and worthwhile.

*The Big Switch* promises to have considerably less impact than his earlier works; it is probably impossible, after all, to antagonize a major industry each time out. But it is, nonetheless, well worth reading. The audience should have a good general interest in technology and be comfortable with occasionally come to seem rather large conclusions drawn from small bits of evidence. But those with a wide view of the Internet and its social impacts will enjoy the book.
Those of us who have somehow survived from the initial impact of the Internet to at least this writing, may be somewhat tired of analogies dealing with it: “Its impact is like that of the printing press! No, it is less important than the air conditioner in enabling human civilization!” We begin to wish the fabled elephant had simply stamped the blind Indian wise men into jungle jam the moment they laid a hand on it.

Carr builds his new book around such an analogy: the invention, development, and spread of electricity as a power source and as an industry. But no matter with how much caution we may approach such a reductionist argument, Carr makes it interesting, provocative, and, ultimately, instructive.

Carr’s position is that computing will invariably make a transition similar to that of the earlier means of distributing electricity. Electricity moved from initially incredibly expensive, highly localized, and vastly complex devices served by a select priesthood, to a ubiquitous service. That is, power for production was initially, of course, human generated, then produced by energy of animals, moving water, etc. All of these had serious problems, notably the distribution of energy from the point at which it was generated. Then electricity became a source that could be easily distributed through the entire manufacturing enterprise of the entrepreneur capable of buying or building a generator.

This change in distribution worked enormous changes. 19th century factories driven by water power were dangerous, noisy, inefficient plants which produced power at a water source and distributed it through a complex system of axles, belts, and pulleys. But ultimately the utilizable power was proportional to the closeness to the water, because so much was lost in driving the transmission system.

Then voila! Thomas Edison appeared; and, arguably as importantly, Samuel Insull, who arrived in New York in 1881 from England. Insull saw that electricity, rather than being generated by every factory needing power, could better be distributed from a common source, such as the
power plants of Consolidated Edison. Other men had to make equally important contributions, each described interestingly and succinctly by Carr, and soon electricity was a *service*. With electricity we enter General Electric’s pavilion in Disney’s Tomorrow Land where everything is clean, quite, affordable, and, oh yes, American!

To Carr, computing has gone through analogous stages, from a time when it was expensive investments in Wang. DEC, or Apollo systems that enabled some to begin crunching data, paying employees, storing records, etc, locally at their business. Then others began to see the possibilities and farsighted entrepreneurs began to contract to provide services for others. But soon, following Intel’s 1971 development of the PC, the approach switched again. A thousand PC’s bloomed in every big firm and data processing returned to the home office.

Carr makes this extended comparison both interesting and illuminating. What we learn is that, however different the units of comparison—electrical generators and pc’s—may seem, in fact there is a sort of common logical progression in terms of the social and economic functions each industry served.

There are even apt comparisons in the development of each technology—winners and losers, like Thomas Edison on the one hand, and Nicholas Tesla on the other, who may ultimately have had the better technology, but did not bring it to market as successfully. In computing, many might argue, we have Microsoft vs. Apple, a virtually ubiquitous OS which, however clunky and vulnerable, quickly outpaced the more elegant but idiosyncratic MAC OS.

However, Carr argues, computing is capable of achieving, unlike electrical generation, an important additional transition: from everywhere to, in a sense, nowhere. Google is now providing us with the distributed computing power, the off-site storage and via its core business of searching, the means of integrating all data everywhere. We now enter, metaphorically at least, the stratosphere, with computing visualized as a cloud made up of users and producers, all held together by the Internet itself.
While Carr goes to a great deal of work to construct his very detailed comparative history of technology, the really exciting part of the book is perhaps the many points at which he ties technology to its impact on our social practice, even upon our very human psychology.

We learn, for example, that the more we share information with people of similar opinions, the more extreme our common opinions grow. [4] The photosphere is not truly heterogeneous; few political blogs are anything more than a forum for like-minded people and very few (about 9% in one study) cross-link to blogs on the other end of the left-right political spectrum. [5] As we become more connected, paradoxically, we also in important ways become more divided.

In Carr’s final chapter, “iGod,” he perhaps takes himself a bit too seriously as a savant and spins off into the clouds, but the entire journey has been so interesting and the analysis so useful that we can forgive him even that.

As a whole, the book is somewhat discursive. There are points that I at least wearied of the extended analogy between electricity and computing, but the information that we encounter as we proceed through the work is invariably provocative. Carr’s vision is a compelling one, and once again he reduces the importance of computing to a scale which, if seems less revolutionary and analogous to earlier changes in production, at the last also promises to be far more transformative.

After all as Carr points out, within several decades of the development of urban power plants, still less than ten percent of power was produced in that manner. Most was still produced and consumed locally. We are in the very early days of fully realizing the impact of the Internet.

[1] The essay can be downloaded on a paid basis at:
http://harvardbusinessonline.hbsp.harvard.edu/b01/en/common/item_detail.jhtml;jsessionid=ENB34YRB5QWSGAKRGWDSELQBKE0YIIKSW?id=R0305B
[2] See Carr’s home page together with book reviews at:
http://www.nicholascarr.com/doesitmatter.html

Amazon.com, in its usual dazzling display that IT can still matter a great deal, makes large portions of it available at:

[3] See hundreds of thousands of sites at:
