

Territories of profit: Communications, capitalist development, and the innovative enterprises of G.F. Swift and Dell Computer.

By Gary Fields. Stanford, Calif.: Stanford University Press, 2004. Pp. xviii+281. \$24.95

Perhaps more than others in our discipline, historians of technology have a tendency toward grand comparisons across decades or even centuries, either to mark moments of discontinuous technological revolution (“the new electrical/petrochemical age!”) or to illustrate periods of convergent technological evolution (“the second industrial age!”). Speaking from experience in this regard, such comparisons are never easy and are always limited, but can also, sometimes, help us reconceptualize both the times and the technologies that we explore in an intellectually productive way. Gary Fields has made such a fruitful comparison in his book *Territories of profit*, arguing effectively for important parallels between the late-19th century and the late-20th century in “how business users of transport and communications systems learn to reorient their competitive strategies and operational routines,” which ultimately enabled them to “reshape[] the geographical territory of profit making.”[1] However, his story, grounded more on secondary business history and economic geography than on primary historical research or recent technological theory, may be of more interest to present-day management consultants than to other historians (or geographers) of technology.

Fields, in this book based on his dissertation in City and Regional Planning at the University of California-Berkeley, juxtaposes the “new” information-communication-transportation (ICT) technologies of a century ago (the telegraph and the railroad) with those of today (the Internet and, though Fields doesn’t emphasize it, global freight systems) through a comparison of two “system building” entrepreneurs who, each in their own time, figured out how to use those technologies to gain decisive advantages over their competitors: the 1870s-80s purveyor of precut frozen beef Gustavus Swift, and the 1980s-90s manufacturer of customized personal computers Michael Dell. In both cases, Fields argues, success meant “both the processing of enormous amounts of real-time information and the manipulation of high-volume flows of goods.” [6]

The case that Fields makes is grounded firmly in recent theories from both business history (especially following Alfred Chandler and William Lazonick) and economic geography (the work of Manuel Castells and AnnaLee Saxenian). Fields argues effectively that both the “visible hand” of management organization and the careful siting of production and distribution nodes in existing “industrial districts” were crucial to the successes of Swift and Dell. Surprisingly, however, Fields only briefly [38-39] mentions theoretical work in the history of technology and related fields which deal with the dual nature of technological systems as *social* systems. For Fields, the cases of Swift and Dell show historically-contingent success stories where managers were able to “learn by using” new ICT infrastructures. Such learning fueled a round of capitalist “creative destruction” (following the ideas of Joseph Schumpeter) as both firms decreased production turnover time, reduced risk in procurement and distribution, and removed opportunities for profit and control by intermediate firms. What emerges is a fine set of historically-grounded management lessons, but a very limited historical narrative of the relationship between technology and culture.

The most worrying limitation of the firm-centered approach that Fields takes is the near total removal of three broad conceptual groups of historical actors who are crucial to his historical analogy: workers, consumers, and the state. Fields focuses on the innovative “learning” of only one historical agent (the firm), and the actions of any other historical agents (workers, consumers, the state) are assumed to be simply part of the environment that the firm must “learn” about. But workers, consumers, and the state are affected by the new space and time conditions of “communications revolutions” as well, and may be acting in new ways — even “learning” in their own right. For example, both Swift and Dell innovated not only in commodity distribution, but in labor organization, each scaling-up a huge low-wage and (presumably) low-skill labor force which had a set of time-space characteristics all its own. Even a cursory glance at the history of ICT infrastructure firms themselves (from Western Union to Microsoft) shows that the responses of labor, customer, and regulator groups matter when trying to plan out a new technological system or to network together a new technological landscape (whether for social progress, for owner profit, or for both).

All this is not to deny that firms matter; as Fields reminds us, both Swift and Dell, as a result of their innovations, grew in size and scale to lead their respective industries: “Swift surpasses all of its competitors and becomes the largest meatpacking firm in the country and even the world” in 1903; and in 2001, “Dell ascended to the position of the largest PC firm in the world.” [22] But even the largest firms are social entities as well as economic. How is such power perceived by consumers, by employees, and by the state? Fields mentions the public skepticism, labor strikes and antitrust suits against Swift in a scant few pages; even less insight into these actors is offered in the case of Dell. In ending his narrative, Fields makes a final claim across the centuries by arguing that since the railroad and the telegraph of the mid-19th century were “technologies truly without precedent,” [231] then “the entire period from the mid-nineteenth century to the present day is arguably a single communications revolution.” [232] Perhaps so; I myself and many other historians of ICT infrastructure have made similar arguments as well. But revolutions are made — and experienced — by more than just capitalist firms.

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