Territories of Profit: Communications, Capitalist Development, and the Innovative Enterprises of G. F. Swift and Dell Computer. *By Gary Fields*. Stanford: Stanford University Press, 2004. xviii + 281 pp. Maps, tables, figures, notes, references, index. Cloth, $60; paper, $24.95. ISBN: cloth 0-804-74721-0; paper 0-804-74722-9.

Reviewed by Richard R. Nelson

This fine book is a study at least as much in economic history as in business history, and the author has successfully combined the two. Gary Fields has set his accounts of particular businesses within the broader context of economic history, and the details he supplies in chronicling these individual businesses help to bring his more general propositions to life. The book is nicely organized and well written, all in all a pleasure to read.

Fields's broad theme is that the Internet followed a pattern of development in the 1990s that was similar to the course followed by the expanding railroad and telegraph systems in the last third of the nineteenth century. Each provided the infrastructure that enabled firms to operate effectively across a much wider geographic area than had been previously available to them. On the other hand, it took managerial insight to perceive the new opportunities and required both a willingness to take risks and strong qualities of entrepreneurship to exploit them. Swift, in the era of rapid construction of the railroad and telegraph, and Dell, during the rise of the Internet, were firms that effectively seized the opportunities presented to them.

The book is divided into two parts, each comprising two chapters. The first chapter in each section describes and analyzes the revolutions in infrastructure that opened up the possibility of firm operations over a much wider terrain: the railroad and telegraph in one era, and the Internet in the other. These chapters are very well done. While the basic stories have been told elsewhere, Fields adds a persuasive analysis of how these developments changed the feasibility and cost of operating across long distances. The second chapters in each part are concerned, respectively, with Swift and Dell. The business histories are interesting in themselves, particularly when they demonstrate the innovative methods these firms used to take advantage of new opportunities.

Fields has two subsidiary themes. The first is that, in both cases, the firms had to apply managerial oversight and direction to achieve their greater reach, rather than simply relying on market transactions. Swift achieved vertical integration by developing a spatially dispersed set of subunits, first for acquiring cattle and then for processing and selling beef. After experimenting with contracting, Swift eventually bought the whole structure and coordinated it through a complex, yet coherent, decentralized management structure. Dell stopped short of owning all the layers of the geographically dispersed and vertically deep structure it developed, but it coordinated the units by maintaining tight controls on its suppliers, rather than by operating through arms-length market relationships.

A second subsidiary theme is that, in an analysis of economic development in an era (and that is one way of looking at what Fields is doing), it may be fruitful to view some technologies, and the firms controlling them, as providing infrastructure, and to see other technologies, and the firms controlling them, as taking advantage of that infrastructure. In the two cases he considers at least, I found Fields's point of view persuasive.

Which brings me to the two features of the book that I found less than satisfactory.

One is Fields's minimal coverage of the salient political developments during the periods he is concerned with that were endogenous to his stories. The era of railroad and telegraph expansion was notable for the growing economic muscle of big firms, particularly the railroads, which actively solicited political support for carrying out their plans and largely succeeded in gaining the backing they needed. The latter part of the era saw the beginnings of populist political reaction to the apparent market and political power of the railroads and of huge firms like Swift that the new technologies enabled. In the end, the activities of these powerful industries, and the reaction they engendered, led to a major expansion in government regulation of economic activity and the passage of antitrust laws. While the full political and legal consequences of the Internet have not yet emerged, it is clear that, until recently, its development was facilitated by a political climate that was hostile to regulation. Yet the very rise of the Internet, and the host of issues it has spawned, almost certainly will lead to a variety of new regulations. Fields barely touches on these possibilities. This good book would have been improved by the inclusion of more political economy.

My second criticism is of Fields's failure to see, or at least to discuss, the relationship between his analysis and the theory of economic eras being developed by a number of scholars, exemplified recently in the book *As Time Goes By: From the Industrial Revolution to the Information Revolution* by Christopher Freeman and Fransisco Louca (2001). This body of theoretical economic history, which began with Schumpeter's *Business Cycles* and has been extensively elaborated in recent years, considers economic development in terms of a series of eras, each dominated by the rise of particular technologies and the emergence of organizational and institutional structures that exploit those technologies effectively. As a school of thought it has drawn a lot of criticism that, to some extent, applies to Fields's work, but he acknowledges this broader body of writing only in a footnote.

Of course it is easy to identify possibly fruitful subjects or topics that could have been covered better. However, I go back to my opening remark. This is a fine book and an excellent read.

Richard R. Nelson is George Blumenthal Professor of International and Public Affairs at Columbia University. His central research interests have been long-run economic growth and the technological, organizational, and institutional developments that drive economic growth. He is the coeditor, with David Mowery, of Sources of Industrial Leadership: Studies of Seven Industries *(1999, and* The Sources of Economic Growth *(1996).*