

The Government Machine: A Revolutionary History of the Computer. *By Jon Agar.* Cambridge, Mass.: MIT Press, 2003. viii + 554 pp. Index, notes, illustrations, photographs. Cloth, \$50.00. ISBN: 0-262-01202-2.

Reviewed by Atsushi Akera

Jon Agar has written an impressive, if somewhat difficult, text on the relationship between mechanical metaphors and artifacts and the changes that occurred in British public administration, beginning in the eighteenth century with the emergence of liberalism and continuing up to the present-day neoliberal economy. On the surface, the book would appear to belong on the fringes of business history. However, according to the author, there are several reasons for scholars in the field to pay attention to Agar's text: First, the British civil service led, rather than followed, administrative reforms, providing an important model for corporatism both in England and elsewhere. Second, the metaphor of the machine permeated public discourse on government administration to a greater degree than has been noted before. Finally, Agar examines how mechanical devices, such as tabulating machines and electronic computers—the literal machinery of government—supported and extended the mechanistic attitude toward government that became a dominant feature of government service and carried over to the private sphere.

The Government Machine is an erudite work that draws on the literature of other fields, especially the history and philosophy of science. The text also draws in a tempered, yet interesting, manner on postmodern literary theory, which by now has become a familiar part of the academic landscape. However, in this review, I will focus on the book's relevance to business historians.

While the title may appear iconoclastic, a quick reflection on Tammany Hall and other notorious “political machines” that pepper U.S. urban history makes evident the point of speaking about a government machine. In the context of the British civil service, concerns about “mechanical government” were tied explicitly to the Enlightenment and the spread of mechanistic philosophy, especially as made tangible by the everyday realities of the British industrial revolution. Utilitarians like Jeremy Bentham, who championed mechanical government during the early nineteenth century, failed to

persuade proponents of more liberal views toward government. However, in response to the increasing scale and cost of government, the Northcote-Trevelyan report of 1853 helped bring about a two-tiered structure of civil service that made it possible to introduce a more mechanistic approach within the lower tier. Thus, while the upper tier of British civil service remained the exclusive domain of educated gentlemen, new hiring policies opened the lower rungs of the civil service to the middling ranks, and eventually to women. This early history of ideas about mechanical government is important to Agar, because he wishes to argue, and does so convincingly I think, that a broad diffusion of mechanistic attitudes and metaphors about government were a necessary condition for the widespread mechanization of government through office machinery.

This is an extension of an argument laid out by Sharon Strom (*Beyond the Skyscraper*, 1992) that routinization, mechanization, and feminization went hand in hand. Nevertheless, Agar's perspective is unique in pointing to the significance of metaphors in transforming social order, specifically as they are applied to the development of a new social order within the administrative workplace. He describes episodes involving attempts to augment the mechanistic sphere of government, such as the efforts to create a National Registry, a police surveillance system, and the British Empire Statistical Bureau, thereby to extend government's powers. Following postmodernist theory, Agar is less interested in issues of causality—what brought on mechanization—than in documenting the mutually constituting relationships between knowledge, technology, and power that make up a Foucauldian “regime of truth.”

I am less convinced by the second half of the book. Here, Agar turns to the narrower question of how actual machines—punched-card systems, electronic computers, and eventually the Internet—served to augment the “infosphere” (a neologism) and the surveillance powers of government. Amid concerns about electronic privacy following 9/11, Agar's chapter on privacy and citizens' distrust of government intrusion during the 1960s and 1970s (Chapter Nine) offers some valuable insights. Yet the historical methodologies the author employs are eclectic and not always suited to the specific questions he raises.

One example of this failing will suffice. In Chapter Eight, Agar devotes considerable space to the Ministry of Treasury's Organisation and Methods (O&M)

Division, emphasizing its role as an expert group of mechanizers who spearheaded the transformation of government into a computerized setting. The British O&M movement may have been substantially different from the U.S. “structure and organization” craze of similar vintage; yet this new division’s title (and history) suggests that its interests went beyond the goals of simple mechanization. At least in the U.S. context, government units, such as the Bureau of the Budget and the General Accounting Office, took an interest in automatic data-processing systems because a decision by a federal agency to procure an electronic computer usually entailed the systematic review of the agency’s operations. It is possible that Agar is entirely right, and that the British Treasury O&M was merely a group of mechanizers. Yet my suspicion is that Agar’s interest in machines and mechanical metaphors, which was exquisitely employed in the early part of the study, directs him away from conventional forms of historical explanations that might have produced a more compelling account of technological and organizational change. This is unfortunate, because the latter part of the book contains many of the case studies that hold the greatest potential interest for those who might like to use this history as a means of understanding contemporary problems in business.

At a higher level of abstraction, *The Government Machine* offers a highly valuable point of comparison in its description of how technical and administrative changes in the public sphere occur in a manner that both resembles and differs from how they play out in the private sphere. The book’s format as a British case study amplifies differences with U.S. counterparts in a way that is helpful to the overall comparison. I recommend this book to readers of the *Review* who wish to broaden their perspective on the contexts in which technical and administrative decisions are made.

Atsushi Akeru is assistant professor of history in the Department of Science and Technology Studies at Rensselaer Polytechnic Institute. His recent publications include “IBM’s Early Adaptation to Cold War Markets: Cuthbert Hurd and His Applied Science Field Men” in the Business History Review (Winter 2002) and “Voluntarism and the Fruits of Collaboration: The IBM User’s Group, Share” in Technology and Culture (October 2001).