

fundamental fact is that the Soviet Union had to operate internationally within the constraints of the world economy. It is not that surprising that it behaved as rationally as it could in these relations.

I am sympathetic to the author's questioning of how Stalinist development would have played out in an alternative external economic environment, but the ideological temperature of the book can be ascertained by noting that in the discussion of grain exports in the 1930s there is no mention of the famine in Ukraine. "Exports, in turn continued to be forced in many products that were in severe shortage, notably grain in times of famine" (p. 53). That is the extent of reference to the famine in a chapter discussing how difficult it was to import industrial goods due to the terms of trade worsening because of the Great Depression. No mention of 2.5 to 7.5 million deaths in the Ukraine caused by the need to maintain grain exports. I tend to think that if somehow it could be linked to the U.S. State Department it would have been mentioned more (read the book and you will understand that reference), but I suppose that this was too great a stretch.

There are some surprises in the book: I never expected to see Soviet behavior described as sensuous (p. 173). The Soviet decision not to join Bretton Woods, contrary to the author was a close call (p. 66.). Archival documents show great interest until the failure of the United States to offer a credit to the Soviet Union like that extended to the UK (See James and James, "Origins of the Cold War"). I also felt that some of the discussion just misses the main point. Intra-CMEA relations is a good example. The author notes that "CMEA prices largely benefited Eastern European countries," and further notes that the "satellites were effectively subsidized by a country that was, in fact, less developed than many of them" (pp. 69-70). It is well understood that this was due primarily to underpriced energy exports exchanged for industrial goods that were over-priced in CMEA trade. The author argues that this was due to Soviet ineptness and East European cleverness, and to arbitrary CMEA prices (but why were they arbitrary?), but not to any Soviet benefits from the implicit subsidy. Surely, without the subsidies, Eastern Europe would have been harder to control politically. The Soviet Union was using the subsidies to economize on alternative sources of control. When the subsidy collapsed in the second half of the 1980s, so did the CMEA. Is this a complete coincidence? Whether the price was worth it (for the USSR) is a different question. But it was not the Soviet Union's weak international position that forced it to subsidize Eastern Europe! Another example: I think the fact that Russia still does not have an oil pipeline from western Siberia to the Pacific indicates that it was probably not the Cold War policies of the United States that prevented Japan from pursuing this in the 1970s.

Overall, I found this book interesting and useful, but I would have enjoyed it more without the ideological baggage.

Barry W. Ickes, The Pennsylvania State University

Peters, Benjamin. *How Not to Network a Nation: The Uneasy History of the Soviet Internet*. Cambridge: MIT Press, 2015. xiii + 298 pp. \$38.00. ISBN 9780262034180.

Benjamin Peters's lively and engaging book takes the reader through the Byzantine labyrinths of Soviet bureaucracy, following the tortuous and tortured paths of several ambitious proposals to build nationwide computer networks in the Soviet Union in order to optimize the functioning of the national economy in the 1950s–1980s. Framing it as a "tragic story" of the lost opportunity to salvage the Soviet economy, Peters reconstructs the fascinating arguments between the Soviet computer network enthusiasts and the ministry officials whose control over their dominions was threatened by the onslaught of the "optimizers." The book concludes by drawing parallels between the mighty institutional interests of government agencies squashing the Soviet computer initiatives and the overpowering commercial interests of today's large software corporations posing threats to privacy and freedom on the Internet.

Adding new archival and oral history sources, Peters significantly expands the factual base of my earlier treatment of this topic in *From Newspeak to Cyberspeak* (2002) and in the 2008 article “InterNyet.” He adds vivid detail to my description of Anatoly Kitov’s 1959 proposal to build a nationwide network of dual-use military/civilian computer centers (with one small correction: Peters asserts that Kitov had intended to use “preexisting” military networks while Kitov had actually proposed to build a new network, which never materialized). He also adds substantial material to the story of Viktor Glushkov’s proposed All-State Automated System (OGAS), particularly in discussing its mixed centralized/decentralized architecture, explaining the complicated relationships between Glushkov’s Institute of Cybernetics in Kiev and the Central Economic Mathematical Institute in Moscow, and illustrating the playful subculture of Kiev cyberneticians, who combined computer jokes with a mild parody of Soviet rhetoric and rituals.

In terms of interpretation, Peters also goes beyond my original argument, and it is worth discussing the difference in some detail. We both find the most immediate reasons for the failure of the Soviet Union to act on the network proposals in the opposition of top government agencies, such as the State Planning Committee or the Ministry of Finance, whose authority would have been curtailed if these proposals were to come to fruition. Beyond the immediate reasons, however, there are always deeper factors in play. First, likening “USSR, Inc.” to a large corporation, Peters argues that the failure of computer reformers came “due to entrenched bureaucratic corruption and conflicts of interest at the heart of the system they sought to reform” (p. 193). Then, accepting that the metaphor of the Soviet Union as a corrupt corporation is limited, he employs Hannah Arendt’s analogy between the public/private and the *polis/oikos* oppositions. In this context, he asserts that the computer network controversy is not one of the state vs. the market, but should be reframed using Arendt’s model of the “escalation of private interests over public ones” (p. 195). Trying to break down Cold War-era binary distinctions between socialist and capitalist economies, Peters ascribes “private interests” to Soviet government agencies and compares those to the “private interests” of large software corporations in today’s networked capitalist economy. The same forces that brought down the Soviet networking efforts, he argues, are threatening the privacy of individual users and the transparency of services on the Internet.

Drawing parallels with today’s concerns over the Internet might be insightful, but it is worth remembering the specificity of the Soviet case. In the case of the American ARPANET, the users actively redefined the initial purposes of the network, and it grew from below, eventually leading to what we now know as the Internet. The Soviet network proposals were unacceptable not only to top government bureaucrats but also to all potential users—from factory managers to individual employees—who routinely distorted the data they reported to their superiors. While ARPANET was advantageous to its users, the Soviet networks would have disrupted the flows of information and the balance of power on many levels, and therefore faced opposition from all sides.

By calling the failure to realize OGAS and similar proposals a “tragedy,” Peters seems to suggest that their implementation would have been beneficial for the Soviet economy. But is it really true that OGAS, if implemented, would have rescued the Soviet economy, instead of sinking it faster? If the economic activities of the entire population were subjected to stricter computer monitoring, would this have improved the lot of the Soviet people? Did Soviet government bureaucrats, acting in pure self-interest, perhaps nevertheless serve the public good by derailing proposals that would have worked only in a different place, a different time, and a different economy?

How Not to Network a Nation is a fascinating, thought-provoking book which should spark a meaningful debate among Soviet historians, scholars of media studies, and historians of technology about the limits of technocratic thinking on both sides of the Iron Curtain, the interplay of free agency and surveillance in networked systems, and the uncanny ability of computer scientists to make fun of the ideological dogmas of their political systems, as well as their own utopian visions.

Slava Gerovitch, Massachusetts Institute of Technology