

Appropriating America: Americanization in the History of European Computing

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In the European history of computing, “America” is always implicitly present, yet the transatlantic relation has not often been an explicit theme for historians. Business history, economic history, political history, and American studies offer examples of making an explicit theme of European-American relations. The history of technology has been following these examples, and this special issue ventures to do the same for the history of computing.

The theme of Americanization

The notion of Americanization in European literature has a long and predominantly negatively toned tradition. The threat of the Americanization of Europe has horrified commentators, who associate it with mass production, standardization, scientific management, commercialism, and consumerism—a plethora of plagues threatening to dehumanize both the workplace and culture. The reception of Taylorism in the early 20th century paired the admiration for rationalization and efficiency with shivers about the fate of the worker. The automation debate in the 1950s, to give another example, was launched as a discussion on unemployment. By the time it landed in Europe, however, the discussion had turned into a speculative exchange on technification of society and cultural estrangement. Even if in current historiography Americanization has turned into a more neutral term, an almost technical indication of American influence on Europe, undertones of such heavy connotations still resonate.

It is fair to honor Matthias Kipping for bringing to bear the theme of Americanization on the history of computing.¹ In the 1990s, when he did so, the accepted view on Americanization was heavily influenced by business history case studies. Studying

details in business at the shop-floor level suggests that with effective influence there is always a receiving party, an actively receiving party turning external practices into something of its own (i.e. appropriation). With this idea, the history of technology came to realize that the influence called Americanization was not only one way, as the term might suggest.² Indeed, historians have successfully looked for European versions of management practices appropriated from American business models. Counter to this historiographical trend of stressing consensus at the shop floor—and thereby suggesting consensus at a political level—the latest findings in American studies of the past decade pour from a different barrel. John Krige has reminded fellow historians that, in the end, there was no equality between the US and its allies.³ Power was exerted, there was an American hegemony. The political history of foreign policy, as one will have no difficulty imagining, yields different contributions to history than the anthropology of the shop floor. Confronting these two trends in American studies was the purpose of the Appropriating America: Making Europe Conference (held in Amsterdam, 15–17 January 2009).

The European Science Foundation's Inventing Europe program (2007–2011) brought a welcome opportunity to address issues of Americanization. Two projects in this program, Software for Europe and European Ways of Life, joined forces to stage the debate on the influences of American culture, technology, and ways of production in Europe. The Appropriating America: Making Europe Conference was the result. Out of the contributions relating to history of computing, five articles have been selected for this issue of the *Annals*.

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Transcending the clash of narratives

The conference organizers expected sparks from the confrontation of consensus versus hegemony views, and got much more. The authors went beyond a clash of approaches to open new vistas on Americanization. Each of the articles in itself combines perspectives, telling a story of local ambitions with awareness of the global context, or conversely showing the hegemony perspective of Cold War history while paying due attention to the nitty-gritty details of getting machines, software, and organizations to work. Even more, as the selection of articles bears witness, several papers at the conference broadened the scope to globalization. Americanization studies had been largely restricted to Western European stories. Here we are presented with a view on central European countries and a first comparison of Americanization and Sovietization.

In the era after World War II, the US and its corporations explicitly influenced the modernization and rationalization of industry and bureaucracy. In Europe, Marshall Aid was often used to import novel means of production, both machinery and expertise. In the US, commentators in their promotion of an “American system of production” went as far as to dub it the Permanent Revolution.⁴ The “American system” was generally promoted as a way of avoiding conflict between forces of production, precluding antagonism between labor and capital by increasing productivity. Calling this the Permanent Revolution in the middle of the Cold War left little to guess as to the

author’s political intent. At this point, the historian of postwar reconstruction is immediately pressed to pose questions of Cold War history. Appropriating such permanent revolutionary spirit, a country like the Netherlands installed its Committee to Increase Productivity (COP), organizing study trips to America. Whether interpreted as Cold War politics or postwar reconstruction, a climate was created most favorable for office automation, domestic development of experimental computers, and the purchase of imported computers. Their use was the epitome of appropriation, and the automation debate was imported and appropriated with it. Perhaps typical of Europe, the comments and debates would precede the actual installation of the machines. And the rhetoric of such writings conveyed little subtlety as to the notion of “America.”

In the Software for Europe project, we work with a polarity of approaches of Cold War history versus the history of postwar reconstruction. For our project this overlaps, not coincides, with the polarity of hegemonic versus consensus interpretations through the choices of sources. On the one hand, we consult what we have come to call Krige-type archives³ of diplomatic exchange and government policy—that is, to describe the power relations, look at the remnants of the places where power was exerted. On the other hand, we consult the archives of events in developments on the shop floor and the papers on scientific and technological development. The articles in this issue, to some extent, reflect the polarity of approaches and archives as well as reach synthesis.

Readers will be surprised not to read in this issue of the events in the history of computing most loudly resonating Americanization, Jean-Jacques Servan-Schreiber’s *Le défi Américain*⁵ and the subsequent events in European policymaking and the Unidata cooperation effort.^{6–8} Rather than relate that story here, interested readers can see Arthe Van Laer’s ample treatment in the previous issue of the *Annals*.⁹

In this issue’s “Computing the American Way: Contextualizing the Early US Computer Industry,” Thomas Haigh largely fulfills his promise of breaking down the cartoonish image of America, as he surmises it to exist abroad. While previous commentators in history inserted little nuance in their image, Haigh’s article unfolds the story of the “corporate liberal roots of the computer industry.” IBM differed little from its competitors

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in the 1930s and 1940s in supporting the New Deal and developing a revived welfare capitalism in the 1950s. Just like David Ellwood in his keynote to the conference tracing back the ideological roots of Marshall's plans to a modernist agenda in the 1930s, Haigh shows the curious mixture of liberal engagement and corporatist thought in the office machinery industry, exemplified by IBM's T.J. Watson Sr. and Jr. The more realist picture of America is still largely filled with IBM, not as rogue capitalism but as a paternalist company with a strong corporate culture, a particular kind of modernism.

Computers and their American images were generally not halted by the Iron Curtain. Both Simon Donig and Helena Durnová sketch the fields where Americanization and Sovietization meet, and *bien-étonné* might at moments coincide. Durnová, in "Sovietization of Czechoslovakian Computing: The Rise and Fall of the SAPO Project," shows the levels of American influence in the work of Czech computer designer Antonín Svoboda. How striking it is to see someone follow an American way of research and design while in the very content of his machine building choosing a particular path of his own, a proper appropriation indeed. Nevertheless, Svoboda found himself subject to Sovietizations, Soviet influence, and Soviet style. Thanks to the subtle explanations of these influences, we are led to an understanding of the politicking and politics in Czechoslovakian computer construction with its hurdles and obstructions. What does it mean to have an academic institute in a central European country? And what a difference to be inside or outside of it.

Donig describes computer production in East Germany in the following decade in "Appropriating American Technology in the 1960s: Cold War Politics and the GDR

Computer Industry." First we learn about the ideological difficulties for one modernism, historical materialism, to accept the other modernism, programmable technology. Such a conceptual problem is fine, but it took the context of the "real existing socialism" to turn this into a political problem of accepting computing technology. The political tensions ended in a highly paradoxical situation. IBM was perceived in the GDR as the ideal, but unreachable, technology to be emulated. While IBM thus inspired the East German technocrats to develop their own machines, the national development was frustrated under a changing regime forcing a Sovietization instead—the Unified System of computers. Now the paradox, the content of the Sovietization of computer production was a Council for Mutual Economic Assistance (Comecon) dictated cloning of the very IBM computers that had served as distant ideals. Where Sovietization and Americanization coincided, modernisms were entangled in the strangest of competitions.

Cold War context equally dictated that an international organization for information processing would be established, and it more than that dictated its shape. In great detail, Ksenia Tatarchenko's "The Cold War Origins of the International Federation of Information Processing" offers insight in the ambitions and conditions turning the ICIP into IFIPS into IFIP. We get a taste of Isaac Auerbach's unpolished drive and the importance of the fact that at a certain point no longer the computer scientists but rather the apparatchik A.A. Dorodnitsyn showed up as his Soviet partner in negotiation. Again, we see the Cold War context and the Krige-type archives combined with anthropological details of how a federation is construed.

David Nofre's "Unraveling Algol: US, Europe, and the Creation of a Programming Language, 1955–1960" takes us even deeper into the anthropology of computing, with a detailed study of the process leading to the adoption of the idea of a software programming language and reaching agreement of its definition. In the process, Nofre succeeds in shaking up the accepted historiography of programming languages. Just like Haigh would not easily accept a given image of America, Nofre does not the traditional characterization of Algol as European. He takes off the lid and finds exciting transatlantic connections—how welcome the

European travelers were in the politics between the ACM and the various user groups in the US. In the process, we learn unexpected details about qualifications like “universal” and “common” for a language. And again we are taken from details of design and use of software to political circumstances.

All five articles convey the tension between hegemonic and consensus interpretation. More than that, the set of five shows a pathway beyond. Hegemony versus appropriation were contradicting interpretations if restricted to national stories, and this exactly is not what the articles do. Each transcends the national borders and brings the nations and the national government policies into play as actors, forming a transnational history of computing.

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