

# **Technology and the Transnational Making of History: The Development of Historical Computing in the 1960s and 1970s**

## **Workshop History of Digital History between East and West**

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This paper will propose a long-term, transnational, perspective on the role of technology in the making of history, building upon a framework I have developed elsewhere to explore the history and genealogies of digital history since the late 19th century [Zaagsma 2024]. It will discuss a key example: the circulation of technological knowledge and expertise among transnational networks of computing historians in the 1960s-1970s against the backdrop of the Cold War. It will ask how these networks were constituted, the role of politics in their shaping, and what influence on the development of historical computing they may have had. In doing so it seeks to chart processes of field formation before the advent of the history and computing movement that emerged in the 1980s in the wake of the arrival of PCs on historians' desks. The paper will highlight how a focus on knowledge circulation can help us understand technology's impact on historical knowledge production in the 20th century. It will draw upon the framework of socio-epistemic networks to probe the evolution of the knowledge networks of early computing historians [Kaye et al. 2024].

If the 1950s can be seen as a period of gestation in terms of machine-aided historical data processing, by the early 1960s this phase was over. A new user generation of historians discovered the potential of digital electronic computing and its application in historical research took hold firmly in Western Europe, the Eastern bloc, and the United States. This was enabled by the transition from mechanical machines to mainframe digital computing in universities, the advent of data archives, and the rise of political, economic, and social (science) history and quantitative approaches. Crucially, early historical computing did not take shape in national or local silos; it was highly transnational and characterised by various forms of scholarly, often interdisciplinary, exchange and the circulation of technological knowledge and expertise within a highly politicised international scholarly environment. It was forged within a binary yet complex geopolitical context where science was but one part of broader East-West competition and diplomacy, and early computing historians collaborated with fellow historians as well as political scientists, sociologists, demographers and economists.

This was particularly evident when, in 1968, the Standing Committee on Social Science Data Archives (SCSSDA) of UNESCO's International Social Science Council (ISSC) created a Task Force on Historical Data Archives which would be led by the Swedish historian Carl Göran Andrae. It included the historians Yuhan Kahk (Estonia/USSR), Le Roy Ladurie (France) and Jerome Clubb (USA, and director of the Historical Data Archive of the Inter-university Consortium for Political Research from the mid-1960s to the mid-1970s). Two years later, the 13th International Congress of Historical Sciences conference took place in Moscow. It featured a methodological strand with sessions on "Historian and social sciences" and

“Figures as the elements of the information of historian”, which included a number of computing historians. Using the opportunity provided, the task force organised an informal meeting of “historians interested in problems related to computer processing of historical data” to discuss options for collaboration and the further development of contacts between ‘East’ and ‘West’. The Moscow meeting paved the way for increased international exchange and resulted in a special conference on history and computing, which was held in Uppsala in 1973. This first ever proto-digital history conference centred on quantitative approaches to historical data analysis and showcased a range of methodological approaches which were hotly debated [Andrae 1974].

The paper will first introduce a general framework for exploring histories of digital history, before outlining the transnational aspects of early historical computing in the 1960s-1970s. It will then address the question of transnational scholarly exchange and propose the framework of socio-epistemic knowledge networks as developed in the history of science to chart the development of networks of early computing historians. In the second part, I will present initial results of its application and combine this with insights gained from exploring the biography of Peter Wick, a historian and information specialist at the Institute of History of the Academy of Sciences of the German Democratic Republic (GDR). At the Uppsala conference, Wick presented a bibliographical analysis of historical computing literature from East and West and his archival legacy provides important clues about broader geopolitical contexts as a shaping force in the nascent field [Wächter 1988]. I will argue that both types of reading, distant-aggregate and close-biographical, are necessary to gain a fuller understanding of early historical computing. Moreover, this complementary approach helps to highlight the complexities of transfer and circulation within the much larger context of scholarly exchange in the Cold War and acknowledge both connection and disconnection.

The paper thus has a dual aim: it provides a historical context for several themes of our workshop by examining a pivotal period in the early development of historical computing. At the same time, it proposes a methodological approach to studying this period and presents the initial results of its application.

## References:

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