

History of Digital History between East and West

Workshop

5-6 February 2026

University of Luxembourg

In histories of digital history, as in digital humanities in general, much emphasis has been placed on the two commonly recognized centers of the development of historical computing since the 1950s: the United States and Western Europe. As a result, crucial developments elsewhere have been overlooked, including in the Nordic countries as well as the Soviet Union and the various states of the Eastern bloc. The consequence of this omission is not merely a lack of knowledge about specific countries and a skewed understanding of digital history's manifold early trajectories. It also creates epistemological blind spots regarding the political dimensions of the development of early historical computing and, given the latter's networked nature within a general context of 'East-West' scholarly exchange in the Cold War period, obscures the transnational dimensions of the early history of digital history. The workshop History of Digital History between East and West will address these blind spots by focusing attention on the question of how the local and the transnational intersected in the technology-inflected reshaping of historical research practices and how political backgrounds, contexts and constraints fed into this process.

The workshop is jointly organised by Gerben Zaagsma (University of Luxembourg), Marek Tamm (Tallinn University), Julianne Nyhan (Technische Universität Darmstadt and University College London), Petri Paju (University of Turku), Sune Bechmann Pedersen (Stockholm University) and Nadezhda Povroznik (Technische Universität Darmstadt).



History of Digital History between East and West

Thursday, 5 February 2026

- 9.00 Welcome and introduction**
Andreas Fickers, Marek Tamm, Gerben Zaagsma, Nadezhda Povroznik
- 9.30 Panel 1: Globalising Histories of Digital History**
Chair: Marek Tamm
Discussant: Nadezhda Povroznik
- Gerben Zaagsma**
Technology and the Transnational Making of History: The Development of Historical Computing in the 1960s and 1970s
- Marco Humbel and Andreas Vlachidis**
Exploring International Knowledge Exchange During the Late Post-Cold War Period Through Mailing List Archives
- 10.30 Coffee break**
- 11.00 Panel 2: National Case Studies I**
Chair: Julianne Nyhan
Discussant: Dianara Gagarina
- Aleksey Varfolomeyev and Aleksandrs Ivanovs**
From Cliometrics to "History and Computing": Soviet School in Quantitative Methods in History
- Sune Bechmann Pedersen and Freja Morris**
Early Computing and the Making of Historical Knowledge in Sweden
- Petri Paju**
The Finnish contribution in early computer-assisted history: a meeting place between East and West?
- 12.30 Lunch**
- 13.30 Panel 3: Encounters and Dialogue**
Chair: Sune Bechmann Pedersen
Discussant: Ksenia Tatarchenko
- Marek Tamm**
Digital History in Soviet Estonia: The Transnational Network of Juhan Kahk (1960s–1980s)
- Nadezhda Povroznik**
"To Bare Teeth, Bite Once, but Not Gnaw": East–Western Academic Relations in the 1970s through the Personal Archival Materials of Academician Kovalchenko
- Tessa Gengnagel and Christian Schröter**
Cold War Cybernetics and the Quantification of History: On the Question of Collaboration between East and West Germany, 1950s–1970s
- 15.00 Coffee break**



Thursday, 5 February 2026

15.30 **Panel 4: Methods, Debates, and Materialities**

Chair: Nadezhda Povroznik
Discussant: Aleksandrs Ivanovs

Inna Kizhner

Archaeological Computing in the Soviet Union: social networks developing formal methods in archaeological analysis

Radosław Poniak and Piotr Guzowski

Polish project of computerized family demography research 1979–1986 as an attempt to adopt the Western template to Eastern limitations

Ksenia Tatarchenko

The Omniscient Machine: A Global Spectacle of the Computerized Deciphering

17.00 Reception

19.00 Dinner for participants

Friday, 6 February 2026

09.00 **Panel 5: National Case Studies II**

Chair: Marco Humbel
Discussant: Gerben Zaagsma

Anna-Maria Sichani and Stathis Pavlopoulos

Between data and archives: Mapping trajectories of early Digital History in Greece, 1960–1990

Dinara Gagarina

Digital History in Central Asia: Pioneers, Infrastructure Challenges, and Community Formation

Surabhi Baijal

Peripheral Pioneers: Tracing the Silences and Fragments of Early Digital History in Postcolonial South Asia

10.30 Coffee break

11.00 **Closing round table and further steps**

- **Gerben Zaagsma** (University of Luxembourg)
- **Marek Tamm** (Tallinn University)
- **Julianne Nyhan** (Technische Universität Darmstadt and University College London)
- **Petri Paju** (University of Turku)
- **Sune Bechmann Pedersen** (Stockholm University)
- **Nadezhda Povroznik** (Technische Universität Darmstadt)

12.30 Lunch and goodbyes



ORGANISATION



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Humanities Data Science &
Methodology, TU Darmstadt



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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

5-6 February 2026 | Centre for Contemporary and Digital History (C²DH), University of Luxembourg.

Dr. Gerben Zaagsma

Centre for Contemporary and Digital History (C²DH)

University of Luxembourg

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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Exploring International Knowledge Exchange During the Late and Post–Cold War Period Through Mailing List Archives

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Workshop themes: Development of networks/Primary and secondary sources

What can mailing list archives reveal about ‘East-West’ scholarly exchange and networks in the Late and Post–Cold War period (ca. 1987-2001)? In what ways can mailing list archives, when used alongside other primary source material, help us to understand the role of actors in the evolution of academic disciplines over time? How do the affordances of mailing list archives shape the possibilities for scholarship in the field of Digital History? We will respond to these questions by mining 13 years of the archives of the Humanist Discussion group. Our work is situated within the Mixed Methods Digital Oral History (MeDoraH) project (UCL ethics ID: AH/2025/23), which takes the history of the Digital Humanities (ca. 1949 to the present day) as a case study to explore the potentials of combining oral history research with digital research methods and source material, such as the Humanist's mailing list archives.

The Humanist Discussion group was established towards the end of the Cold War period in 1987 as "a Bitnet/NetNorth electronic mail network for people who support computing in the humanities" (McCarty, 1987). With over 40,000 contributions in 38 years the Humanist is widely considered to be key primary source material for understanding the history of what is now called the Digital Humanities discipline (Hockey, 2004: 8; Nyhan, 2016; Rockwell and Sinclair, 2016), and moreover the early users of emails in general (Grier and Campbell, 2000: 32). Yet to date there is insufficient experience in using emails as primary source material due to a lack of preservation and public access (Brügger, 2018: 149–51; Green, 2025: 2–4).

In this presentation we will discuss the aptitude of the Humanist discussion group to explore the international knowledge exchange between ‘East and West’, and the Nordic Countries’ contributions to the Digital Humanities from 1987 to 2001. We explore the geographic spread and absence of the Humanist’s contributors over time by extracting the country code top-level domains (e.g., .su, .yu, .se) in email addresses. In addition, we identify actors (people, places, tools, institutions) present in the Humanist from these regions by leveraging spaCy for Named Entity Recognition. Finally, we will reflect on the

potentials and challenges of mailing list archives for moving towards a 'digital methodological-hermeneutical turn' by comparing the results with other primary source material, such as the Hidden Histories oral history corpus (Nyhan et al., 2015). Accordingly, our presentation does not only contribute to developing a better understanding of the networked formation of the Digital Humanities, but also to the methodological toolbox in leveraging mailing list archives as primary source material for Digital History.

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From Cliometrics to “History and Computing”: Soviet School in Quantitative Methods in History

Aleksey Varfolomeyev (PhD, TU Darmstadt, Germany),
Aleksandrs Ivanovs (PhD, independent researcher, Latvia)

Decades have passed since the collapse of the communist rule in Eastern Europe, but the Soviet “legacy” still has a significant and controversial impact on different fields of research in post-communist states, including digital history. Therefore, it has become topical to conduct in-depth research into the origins of digital history in the Soviet Union, as well as the methods of managing research work, the functioning of research communities, the influence of official ideological patterns, and the early attempts made in the late 1980s—1990s to integrate with the mainstream in digital humanities.

The emergence of the Soviet school in digital humanities dates back to the 1960s. The first attempts to employ quantitative methods and electronic computing machines for processing historical data and generating models of the past were made in Novosibirsk, where the Research Center affiliated with the USSR Academy of Sciences was established in the late 1950s. It was managed by mathematicians and physicists, and the atmosphere of academic freedom there was caused, on the one hand, by the “Khrushchev Thaw” and, on the other hand, by the distance from the capital. It was there that sociologists and historians gained access to computer-based data processing. One of them was Ivan Kovalchenko, who in the 1970s became the leader of the Soviet school of quantitative methods in historical research.

In 1971, Kovalchenko initiated the foundation of the Laboratory for Applying Mathematical Methods and Electronic Computing Machines in Historical Research at the USSR Academy of Sciences. The Laboratory recruited young scientists, including Leonid Borodkin, regularly published both original research papers and translations of the works written by American and French specialists, promoted quantitative methods in history research and basic approaches in data analysis. In full accordance with the Marxist paradigm, the focus was placed on historical sources of socio-economic history, mainly statistical data and other mass records.

In the Soviet Union, researchers were typically affiliated both with research centers and higher education institutions. Kovalchenko was the Head of the Department at Moscow State University. Due to his influence, in the 1980s the course “Quantitative Methods in Historical Research” was made mandatory in the curriculum of all historical departments throughout the USSR. The unification and standardization of curricula in Soviet universities led professors to master a new subject. Some of them became interested in quantitative methods and mass historical sources. It means that a research community, which later became the basis for the Association “History and Computer” (AHC), was initially formed through forced methods.

In 1992, Borodkin initiated the foundation of the Association “History and Computer” as a branch of the International Association “History and Computing” (IACH). It became possible due to political changes, disintegration of the USSR, and the fall of the Iron Curtain. AHC held annual conferences, regularly published newsletters and collections of articles. Later on, despite the dissolution of IACH, rapid development of new research fields within digital humanities, as well as isolationism and antidemocratic political changes that directly influence research communities in Russia, AHC has demonstrated remarkable sustainability, emphasizing continuity with the Kovalchenko school.

In the paper, the main stages of development and transformation of the Soviet school of quantitative methods in historical research will be evaluated. A special emphasis will be put on the researchers' attempts to correlate the Soviet dogmatic patterns with the challenges posed by computer technologies and the paradigms of open society.

Luxembourg workshop: History of Digital History between East and West

Early Computing and the Making of Historical Knowledge in Sweden

Sune Bechmann Pedersen, Stockholm University

Freja Morris, Lund University

Abstract

Swedish historians were comparatively early adopters of computing technology in the 1960s and they made the country an important hub for exchanges between likeminded scholars from North America, Western Europe, the Soviet Union, Czechoslovakia, and East Germany. In 1970, historians at Uppsala University helped establish a dedicated ‘computers in history’ working group under the International Committee of Historical Sciences and in 1973, they hosted what is arguably the world’s first digital history conference bringing together scholars from East and West. This history of early Swedish computing history however remains unknown abroad and has largely been forgotten at home. In fact, Swedish historiographical works on the twentieth century have only paid cursory attention to the impact of new technologies (Artéus and Åmark 2012; Lilja 1989; Niléhn 1985; Odén and Behre 1982; Åmark 1981). Similarly, the biographies and memoirs of prominent Swedish historians who lived through the digital revolution only briefly reflect on its impact or do not mention it at all (Artéus and Hatje 2020; Westin et al. 2018; Torstendahl 2011; Björk and Johansson 2009).

The aim of this paper is thus to provide the first account of the early adoption of computing technology for historical research in Sweden based on oral history interviews and the hitherto untouched private archives of key actors. The paper primarily contributes to the workshop’s theme of “Links and acceptance with the wider history profession” by asking three sets of questions (1) when, why, and how Swedish historians began using computing technology; (2) how the adoption of computing technology reshaped everyday research practices, altered the division of labour, and changed the resource allocation within historical research projects; (3) how the adoption of computing technology impacted the epistemic foundations of historical research, shaping what is knowable, by whom, and under what conditions?

By pursuing these research questions, the paper however also seeks to contribute to the themes related to local case studies and the development of networks since the key actors were based in Uppsala and engaged in international research networks bridging east and west.

The Finnish contribution in early computer-assisted history: a meeting place between East and West?

Petri Paju

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This paper revisits the early computer-assisted history in Finland in light of the recent results from similar histories in other countries and internationally. Focusing on computing in historical research, it studies Finnish historians' contact and collaboration with their colleagues in neighboring countries from the late 1960s until the early 1980s. Finnish historians could learn about computer usage from a group of historians in the Soviet Union, in particular Soviet Estonia, as well as in Sweden and other Nordic countries. With the Soviet Estonian colleagues, historians in Finland organized regular symposiums starting in 1971; and with the latter, Finnish historians completed joint Nordic research projects during the 1970s. Both forms of collaboration resulted in a stream of publications and seminars, but how much do we know about their exchanges and what else did Finnish historians do with computers? I search for possible, unused source materials for more information on their knowledge production, and discuss the seemingly limited impact that Finnish pioneers of digital history had in their national environment. In hindsight at least, perhaps their most important role, or inter/national contribution, was offering a meeting place and creating connections between East and West.

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Digital History in Soviet Estonia: The Transnational Network of Juhan Kahk (1960s–1980s)

Marek Tamm (Tallinn University)

This paper explores the formative role of Juhan Kahk (1928–1998) in shaping digital and quantitative historical research in Soviet Estonia and beyond, and situates his activities within the broader context of transnational scientific exchange during the Cold War. At the centre of Estonia's digital historical scholarship stood the Institute of History of the Academy of Sciences of the Estonian SSR. From the 1960s onward, this institution developed a close partnership with the Institute of Cybernetics in Tallinn, founded in 1960, which became the primary node for interdisciplinary collaboration between historians and computer scientists in Estonia.

Juhan Kahk emerged as a leading advocate of quantitative history, building both institutional capacity and international visibility for Estonian historical research. After defending his doctoral dissertation at Leningrad State University in 1954, Kahk joined the Institute of History as a senior researcher. By 1968, he had risen to the position of director. Under his leadership, the Institute became an internationally recognised centre for quantitative history, hosting scholars from across the Soviet Union and beyond.

Kahk's influence extended far beyond the local context. From 1966, he was a bureau member of the Committee on Mathematical Methods and Electronic Computing in Historical Studies of the USSR Academy of Sciences. Internationally, he served on UNESCO's Standing Committee on Data Archives and participated in joint Soviet–Finnish research initiatives. He also held a temporary bureau position in the international commission for the application of quantitative methods in history from 1981. Kahk's personal correspondence reveals an exceptionally wide-ranging transnational network for a Soviet-era academic. A 1969 KGB report noted his correspondence with 27 individuals across Sweden, the Netherlands, France, the UK, Austria, Italy, the US, and Finland. This network continued to grow over subsequent decades, although only a fraction of this correspondence appears to have survived.

Kahk's privileged position and diplomatic skills allowed for unusually frequent travel abroad: between 1962 and 1990 he undertook at least 34 international trips, in addition to sustained professional contact across the USSR. He was also a remarkably prolific author, publishing extensively on the application of computers and mathematical methods in historical research. His work appeared in a range of languages, including Russian, English, German, French, and Spanish, further consolidating his reputation as a key mediator between Soviet and Western scholarship in digital history.

The high point of international collaboration in quantitative history was the 13th International Congress of Historical Sciences, held in Moscow in August 1970. One plenary session, titled “Numbers as a Source of Information for the Historian,” featured Kahk among the Soviet speakers. On his initiative, an informal meeting of UNESCO’s Standing Committee on Data Archives took place during the congress – arguably the first international gathering of historians from East and West interested in computational methods. While this meeting led to plans for establishing a permanent international commission on quantitative methods in history and regular information exchange, none of these goals materialised in the years that followed. Nonetheless, the episode underscores the pivotal, though often overlooked, role of actors like Kahk in the early history of digital and transnational historiography under socialism.

“To Bare Teeth, Bite Once, but Not Gnaw”: East–Western Academic Relations in the 1970s through the Personal Archival Materials of Academician Kovalchenko

Nadezhda Povroznik

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Academician Ivan Dmitrievich Kovalchenko remains one of the most influential scholars in the Russian academic tradition, who laid the foundation to the use of quantitative and computer-based methods in historical research (*Garskova, 2018*). A full member of the Academy of Sciences and a central figure in the development of a strong academic school in Soviet and post-Soviet historiography in quantitative history, Academician Kovalchenko shaped the field of historical informatics through his influential research and the institutional structures that he established (*Shiklo, 1997; Borodkin & Vladimirov, 2018*). Numerous studies have explored his theoretical contributions, his prolific academic output, and his organisational work. In recent years, his impact has been further recognised through publications that were aligned with commemorative events, such as the memorial marking the 95th anniversary of his birth. At the Faculty of History of M.V. Lomonosov Moscow State University, a platform devoted to Ivan Dmitrievich Kovalchenko and his scholarly path has been launched (*On the 95th Anniversary of Academician I. D. Kovalchenko, n.d.*). The platform includes various sections on the bibliography of works by Academician Kovalchenko, on personal recollections from different scholars across the globe about him and his contribution to academia, and also an observation of his personal archive.

The personal archive of Academician Kovalchenko was assembled by the scholar during his lifetime and, after his death, was collected, organised according to archival practices, and transferred to the Archive of the Russian Academy of Sciences (*Kruglova, 2003*). This personal archive contains a diverse range of materials and requires thoughtful analysis to shed light on the heritage of the scholar and the development of historical science. Some of the materials from the personal archive were published in 2004 as a volume “Kovalchenko I. D. Scholarly Works, Letters, and Memoirs (from the personal archive of the Academician)” (*Kovalchenko, 2004*).

The focus of the paper is the personal materials published in the mentioned volume that contribute to our understanding of the debates between “Western” and “Eastern” scholars in the 1970s. There was a range of international events of different scales where these debates happened and found their reflection in the archive. These events include the International Congresses of the Historical Sciences (CISH) in Moscow (1970) and San Francisco (1975), the First colloquium of Soviet and German scholars in Mainz (1973), the Second American-Soviet colloquium in Stanford (1975), and the Third colloquium of West German and Soviet historians in Munich (1978). These discussions at the international events were quite intensive and even “hot”, as Moritz Frederic described them during the 14th International Congress of Historical Sciences in San Francisco on 22-29 August 1975 (*Moritz Frederic, 1975*). A quotation, taken from a diary of Academician Kovalchenko, “To Bare Teeth, Bite Once, but Not Gnaw” (*Kovalchenko, 2004, p. 430*), confirms a high degree of tensions and the specific atmosphere at the discussion described from the personal perspective of one of the central participants in the debates. The discussions were focused on various aspects of historical research, including the implementation of computational and quantitative methods. The published materials from the personal archive of Academician Kovalchenko include speeches of the scholar given at some of these events, diaries that he kept during visits abroad, and interviews from a later time about the debates in the 1970s. These materials capture not only the intellectual dynamics of

transnational scholarly exchange but also document ideological tensions, personal attitudes to research by the foreign colleagues, including Robert Fogel and Stanley Engerman, and reflections on professional networks.

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Cold War Cybernetics and the Quantification of History: On the Question of Collaboration between East and West Germany, 1950s–1970s.

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It has been pointed out that cybernetics had a role to play in the history of digital history (cf. Zaagsma 2024, p. 472–473; for similar considerations in the adjacent field of digital literary studies, cf. Bernhart 2018, p. 214–215, and Bernhart 2020).

While some important mediating figures have been identified (such as Jaroslav Purš), there is yet more to explore in early post-war histories of computing, particularly in the case of cybernetics since it sits at the intersection of politics, ideology and methodological debates, forming an undercurrent of history computing; whether as an indirect contemporary tendency or a more specific influence remains a subject of investigation.

We will address these workshop themes by focusing on the situation in the (more or less) divided Germany of c. 1946–1973, already sectioned into four zones of Allied interests ("Sektoren") and later separated by a wall but, according to our thesis, with glimpses of exchange and collaboration between East and West still. Our examination of cross-boundary relations in the field of cybernetics will first map the general background by asking: (1) Was there tangible cooperation? (2) What traces, if any, did this cooperation leave in the archive(s)? (3) Was this cooperation concerned with the humanities, especially history computing, by containing practices like sharing data or co-designing systems (or at least by discussing those issues)?

Germany is a particularly useful case study due to its shared history, language and remaining academic ties across the Allied zones. The construction of the Berlin Wall could mark a natural end point of observation but must be seen as transitional. Our preliminary research shows that (1) there was collaboration, especially in cybernetics, (2) one tangible cooperation occurred in the field of machine learning, and centered on Karl Steinbuch at the TH Karlsruhe (West) and Georg Klaus in Berlin (East); furthermore, there was exchange between Soviet scientists and Karlsruhe, such as a visit by a group on machine learning (Braines, Napalkov, Swetschinski) in 1961 for the international conference on learning automata ("Lernende Automaten", cf. Billing 1961, reminiscent of Ershov's delegation to the

symposium on the Mechanisation of Thought Processes in 1959). Finally, (3) while none of these exchanges focused on the humanities or history computing in particular, there is much to suggest that cybernetics heavily influenced methodological debates that today would likely fall under a digital history umbrella. Georg Klaus – philosopher and head of the Academy of Science of the GDR – and Karl Steinbuch read each other's work and shared interests in pattern recognition and the operationalisation of thought processes (see Steinbuch 1965, Klaus 1961, Klaus 1967). A commonly held view on the history of science and technology at the time popularized the idea that civilization was building up to the automation of thought processes (see Steinbuch 1965), a narrative for orientation and identity-building. Klaus, meanwhile, together with Hans Schulze, sought to convince historians of the benefits of applying cybernetic modelling/system theory for the purposes of analysing actions aimed at effecting societal change; unsuccessfully so (cf. Klaus & Schulze 1967 and, for a reflection, Florath 1996, p. 60–61). And though contemporary traces of a direct discussion of historical studies in relation to cybernetics are scarce in the German context, they do exist and warrant further attention (it would appear that historians in the GDR may have discussed cybernetics in the context of statistical methods used in American historical studies on the anti-communist end of the political spectrum, cf. Arnold 1974, p. 115 and his reference to Loesdau 1969, and how it fits with Loesdau 1974, p. 36).

In our contribution, we will detail these findings, expand on them, and make suggestions for future research into this critical area of post-war computing theories in order to understand how they may have informed the history of digital history.

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**Inna Kizhner - Archaeological Computing in the Soviet Union: social networks
developing formal methods in archaeological analysis**

The aim of this conference paper is to present a social network of knowledge and expertise in statistics, information science and computer science in their application to archaeological research in the Soviet Union in the second part of the 20th century. Because archaeologists often work with large groups of objects to understand the past, understanding frequencies in the distribution of characteristics was an early achievement of archaeological computing. Interdisciplinarity in archaeology in the Soviet Union was initially a result of engineering technologies applied to archaeology. Radiocarbon dating, spectral analysis, and chemical analysis were introduced and institutionalised in the *Soviet Archaeology* journal in the mid-1950s. The *All-(Soviet)Union Conference on interdisciplinary methodologies in archeological research* hosted by the Institute of Archaeology of the Soviet Academy of Sciences in Moscow in 1963 included almost 70 papers from 29 cities (Kolchin 1963). The conference launched a network of archaeologists with an interest in consistent and rigorous methodologies borrowed from science, mathematics, information science and computer science. The conference session on mathematics, statistics, information science and computer science covered, in particular, the use of punched cards in the absence of computers. Common features (metadata values) were coded with the use of punched cards where objects with particular characteristics could be retrieved, using a sorting tool capable of working with 400-500 punched cards per minute (Sher 1963) and frequencies of a particular feature for a group of objects could be computed (Gardin 1971). This approach contributed to developing classifications and typologies, instrumental for dating other objects. The network of researchers interested in archaeological computing was established between the 1960s and the 1970s when computers could occasionally be used to build databases, especially when administrative work to attract resources from other institutions was employed. Books published during this period (see, for example, Kolchin et al. 1970, Marshak 1971, Kamenetsky et al. 1975), work at the Formalisation Department at the Institute of Archaeology, Russian Academy of Sciences between 1973 and 1975 (Sorokina 2014), and database development for a collection of coins and other museum objects initiated by the State Hermitage Museum in the 1970s - 1980s were a part of the social network development which produced excellent publications in archaeological research.

The conference paper will demonstrate which parts of the network were influenced by the work of the French archaeologist Jean-Claude Gardin, a founder of archaeological computing, who cited a Russian collection of papers (Kolchin 1965) in his influential publication (Gardin 1971), and how the work of the network resulted in the translation of Robert Chenhall's 'Museum Cataloguing in the Computer Age' into Russian in 1982. In doing so, the paper will demonstrate how the Soviet network was connected to European and North American research in archaeological computing and how its own nodes related to the methodologies employed in statistics, information science, chemistry and physics. Another approach developed within the same network relied on determining the cultural context at the intersection of time and geography before moving on to formal characteristics. Future work might better understand the debates between the opponents of quantitative methods in the humanities and the proponents of rigorous methodologies in the history of archaeological computing.

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Polish project of computerized family demography research 1979-1986 as an attempt to adopt the Western template to Eastern limitations

The purpose of the paper will be to present the history of a project initiated in the 1970s to introduce the widespread use of computer techniques in the study of early modern family demography in Poland. Based on the French experience and in constant contact with researchers from that country, Polish historical demographers tried not only to import the Western model, but also to adapt it to local historical sources and research problems considered important in national historiography.

The team consisted of both historians and computer scientists was led by Andrzej Wyczanski - at the time one of the most important and influential researchers of the early modern period in Polish Academia. The project goal was to create a technical infrastructure useful not only for ongoing research projects of the team members, but which could be also an important resource for the long-term development of the whole research field of Polish historical demography.

Assessing the long-term effects of the analysed project, it must be said that although it led to a number of interesting publications, and its impact could still be observed in the 1990s, it did not itself realize the hopes placed in it. The technical infrastructure developed under it was not used by other researchers, and further Polish studies of historical demography were based primarily on software and models from the United States and England, and to a much lesser extent on previous contacts with France. Reflecting on the reasons for such a state of affairs, factors such as the PC revolution, which made earlier technical solutions obsolete already at the time of their development, financial constraints experienced from the communist states in the 1980s, growing problems in cooperation with French researchers, among others, can be pointed out here. An important factor also turned out to be the excessive ambition of the project's creators, who, as historians of early modern times, wanted to use the project primarily for materials with a particularly difficult structure, poorly amenable to easy and quick digitization. Paradoxically, the fall of communism also proved to be a significant challenge, when computer scientists discovered that their expertise allowed them to earn much higher incomes outside the Academia and lost interest in continuing to participate in the project.

Although the paper will devote some space to describing the various phases of the project and its achievements, which could be perceived as the local case study and research in the international network development, attention will be focused here primarily on the problems of a broader scope, related to the issue of reception of foreign templates and their adaptation to local conditions, which is present in neo-institutional theory. In the case in question, this will particularly concern problems in the transfer of experience, maintaining contacts with the centers from which the innovations originated, mobilizing local resources, modifying foreign solutions to local needs and availability of historical sources.

The Omniscient Machine: A Global Spectacle of the Computerized Deciphering

Ksenia Tatarchenko

This paper contributes to the workshop's focus on East-West geographies and the politics, methodologies, and labor behind digital knowledge artifacts by juxtaposing two Cold War episodes that transformed the computer's role—from a mechanical translator to a cultural mediator. Celebrated as a device capable of unlocking lost knowledge, ancient histories, and distant cultures, the computer became central to competing narratives of techno-cultural mastery.

The first episode is the Mayan script controversy. In response to an interactive Russian-language encyclopedia showcasing IBM's innovations in random-access memory at the 1959 American exhibit in Moscow, Soviet cyberneticians heralded their 1961 computer-aided decipherment of Mayan scripts as an international triumph. This claim was premature. Yurii Knorozov, the Soviet linguist and ethnologist later celebrated for deciphering Mayan hieroglyphs, was an early collaborator on the project. Yet by 1963, when his seminal book *The Writing of the Maya Indians* was published, he publicly refuted the idea of computerized translation. Rather than dismissing this episode as Soviet propaganda, I situate it within what I term the “cybernetic imaginary”—a distinct cultural moment that shaped technological aspirations, as well as local collaborative culture of the Novosibirsk Akademgorodok where the deciphering project was hosted (see Tatarchenko, *Soviet SCI_BERIA: The Politics of Expertise and the Novosibirsk Scientific Center*, 2024).

The paper contrasts this Soviet case with the 1960s American-led Akhenaten Temple Project, which framed IBM's computer-assisted reconstruction of Karnak "talatat" (standardized stone blocks from Pharaoh Akhenaten's reign) as nothing short of “miraculous.” While the latter achieved greater success, both projects involved intellectual controversies and relied on invisible labor: Soviet female stak manually redrawing hieroglyphs from computer output, and Egyptian workers in Cairo and Luxor preparing photographic databases. By recovering these overlooked contributions, the paper moves beyond the Cold War spectacle to examine the material and human dimensions of computational knowledge production which are still relevant today.

Between data and archives: Mapping trajectories of early Digital History in Greece, 1960–1990

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Although the field of Digital History have evolved significantly in recent decades, much of the existing scholarship continues to overlook their historical foundations and the diverse national and institutional contexts that shaped their development. What is often missing is a more synthetic, comparative perspective that resists a singular origin myth and instead acknowledges the field's multiple genealogies and trajectories. This historiographical gap has fostered a presentist - and often futuristic - narrative in which Digital Humanities and Digital History are framed primarily as fields driven by contemporary innovation, rather than as disciplines shaped by a longer trajectory of methodological experimentation, institutional evolution, and infrastructural development: a field entirely related to the present (and the future), a field without past.

This paper aims to place these long untold and diverse histories in the epicenter of current scholarly focus. It explores the early adoption of computational methods and digital technologies within Greek historical research, during the politically turbulent mid-to-late 20th century, including the military dictatorship (1967–1974) and the post-dictatorship democratic restoration. Amidst broader social and cultural transformations, Humanities scholars in Greece, shaped by various international influences, networks, and collaborations, began actively integrating computational tools to process and analyse large datasets as part of their research practices, adapting methodologies in response to shifting epistemological frameworks and institutional contexts.

Through key case studies, the paper explores how computational technologies initially introduced to support archival and text-based work, gradually transformed research infrastructures and scholarly workflows. From the pioneering efforts of the National Hellenic Research Foundation and the Cultural Foundation of the National Bank of Greece in the 1960s, deploying microfilm, Xerox, and early database and hypertext systems for managing and analysing historical and philological sources, to the Historical Archives of the National Bank of Greece's adoption of microcomputers, bespoke databases and statistical tools in the early 1980s to structure and process large economic history datasets, these initiatives collectively laid the groundwork for Greece's historico-philological engagement with computational technologies, paving the way for the emergence of digital history and digital humanities in the national context.

By tracing these case studies and the discourses around them, the paper uncovers an idiosyncratic and institutionally diverse research culture and history that largely developed outside traditional university structures. It also attempts to position historical research in post-war Greece within a broader transnational and cross-sectoral network of practices and discourses where the research needs and computational tools intersected with evolving historiographic paradigms, scientific collaborations, and market dynamics. Finally, the paper aims to outline the first national (pre)history of digital humanities and digital history in Greece: one deeply rooted in archival practice, shaped by specific research needs and research questions, and defined by the interplay of political conditions, technological affordances and scholarly values, while also remaining open to comparison with other (trans)national trajectories and to more entangled narratives in the broader history of the digital humanities and digital history fields.

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Digital History in Central Asia: Pioneers, Infrastructure Challenges, and Community Formation

Theme: Local case studies

This study examines the emergence and development of quantitative history and digital historical methodologies in Central Asia during the Soviet period and the early years of independence, tracing the foundational period that shaped the field's distinctive characteristics in the region. While the technical foundations of computing were established across the Soviet Union in the 1950s, the systematic application of quantitative methods to historical research began in the 1960s with the pioneering work of scholars like Ivan Kovalchenko at Moscow State University, whose influence subsequently reached Central Asian academic institutions. Drawing on extensive research conducted across Kazakhstan, Kyrgyzstan, and Uzbekistan, this analysis explores how pioneering scholars established the intellectual foundations for what would later become digital history, operating within the broader context of Soviet academic traditions and emerging East-West scholarly networks.

The research is conducted at the Chair of Modern and Eastern European History, Friedrich Alexander University Erlangen-Nuremberg in collaboration with partners in Kazakhstan, Kyrgyzstan, and Uzbekistan. The methodological approach combines various research methods including in-depth structured interviews with scholars and experts, surveys of events participants, and the organization of digital history events both in Central Asia and at the Chair, including the ongoing seminar series "Digital History in/of Central Asia (<https://www.osteuropa.phil.fau.de/digital-history-central-asia/>)," running since 2023, which serves as a platform for continuous dialogue between European and Central Asian scholars.

The investigation focuses on the significant role of Moscow State University and Ivan Kovalchenko's school in shaping Central Asian quantitative history. Several figures who became regional pioneers studied under Kovalchenko's influence, including Saule Zhakisheva (Kazakhstan) and Shayyrkul Batyrbaeva (Kyrgyzstan), both utilizing quantitative methods learned through Soviet academic networks. The research traces how these scholars adapted Moscow-based methodologies to Central Asian historical contexts upon returning to their home institutions.

The study demonstrates how early quantitative projects in the 1970s-1990s laid groundwork for later digital initiatives. Pioneering work on demographic statistics and population analysis during the Soviet period created methodological foundations that influenced subsequent database projects and digitization efforts in the 2000s. These early experiments with statistical methods established institutional memory and technical expertise that became essential for the development of historical informatics projects across the region.

One of the important themes is the formation of the "History and Computer" association in the early 1990s and its considerable influence on terminology and methodological approaches in Central Asia. Unlike Western digital humanities, which developed the term "digital history," the association promoted "historical informatics" (историческая информатика), creating a lasting epistemological framework that distinguished Central Asian practice from Western counterparts. The association's conferences, publications, and training programs became an essential mechanism for knowledge transfer and community formation across the post-Soviet space.

The research analyzes how the dissolution of the USSR in 1991 created both opportunities and challenges for the emerging field. While scholars gained greater autonomy to develop region-specific approaches, they simultaneously faced reduced access to Moscow's computational resources and increased dependence on the "History and Computer" association as their primary connection to international methodological developments.

The transnational dimension examines how Central Asian scholars navigated between Soviet academic legacies and emerging Western digital humanities in the 1990s. Limited economic resources and language barriers meant that Russian academic networks, particularly through the "History and Computer" association, remained the dominant influence on methodological development, creating lasting institutional dependencies that shaped the field's evolution.

The research concludes that the formative period established Central Asian digital history as a unique hybrid tradition, combining Soviet quantitative methodology with post-Soviet institutional innovations. This early development created a distinctive regional approach that prioritized historical informatics over digital history, influenced practitioners' choice of research topics (particularly Soviet-era repressions), and established institutional frameworks that continue to define the field today. Understanding this foundational period is essential for comprehending how digital history develops in post-colonial contexts and the enduring influence of transnational academic networks on regional scholarly communities.

Peripheral Pioneers: Tracing the Silences and Fragments of Early Digital History in Postcolonial South Asia

Surabhi Baijal

Despite early experiments in computing across government and institutional sectors, South Asia—particularly India—remains conspicuously absent from canonical histories of digital history. This paper seeks to explore why the region's contributions have been overlooked and how alternate trajectories of digital historical practices emerged under conditions shaped by colonial legacies, bureaucratic modernity, and postcolonial developmentalism. It argues that the history of digital history cannot be fully understood without addressing the asymmetries of technological access, institutional priority, and epistemic legitimacy that characterised the postcolonial South Asian context.

While dominant narratives of historical computing often focus on academic initiatives in the United States and Western Europe, India's early adoption of digital and quantitative methods took place largely outside the university setting. Much of this development occurred within state bureaucracies and para-academic institutions engaged in population counting, land reform documentation, environmental regulation, and legal indexing. Early efforts at digitisation—such as computerised census tabulations in the 1970s, digitised land ownership records, and early legal databases like SCC Online—were shaped not by scholarly debates around methodology but by state-driven imperatives of governance, development, and control.

This paper positions these initiatives as part of an alternative genealogy of digital history—one not centred on cliometricians or historical methodologists, but on statisticians, legal coders, and data clerks. It interrogates how institutional and infrastructural contexts shaped what was counted as “historical” data and who was considered a valid knowledge-producer. Drawing on grey literature, archival fragments, and oral histories from key public sector institutions (e.g., the National Informatics Centre, the Planning Commission, and state land revenue departments), the paper reconstructs how these actors developed what could be called “embedded historical computing”: forms of digital history developed as adjuncts to governance, rather than as academic practice.

These efforts were constrained, however, by significant material limitations. India's linguistic diversity, fragile archival conditions, and dependency on foreign software and hardware created a digital field marked by unevenness. Localised digitisation often favoured English-language, bureaucratically standardised records over vernacular or community archives. Early computing systems often struggled with Indian scripts, leading to exclusionary practices in both access and preservation. This infrastructural asymmetry shaped which historical records were digitised, who could interpret them, and how they

were accessed—raising key questions about epistemic justice and archival invisibility in the digital era.

The paper also explores the ideological undercurrents of these developments. In a postcolonial state heavily invested in development and modernisation, digital technologies were valorised as tools of administrative rationality and nation-building. Historical records became entangled in state visions of progress, order, and reform—particularly in land titling, judicial transparency, and environmental management. Yet these narratives often reproduced colonial logics of documentation and classification. While these systems digitised history, they did not necessarily decolonise it. By embedding digital history in projects of administrative power, early Indian computing often served to re-inscribe hierarchies of visibility, access, and legitimacy.

In line with the workshop themes, this paper contributes to the discussion of materialities and political-ideological contexts by tracing how geopolitical positioning, technological dependency, and Cold War-era knowledge diplomacy shaped the uneven emergence of digital history in South Asia. It argues for a rethinking of digital history's "origins" not as a centre-periphery diffusion, but as a constellation of localised, politically contingent, and infrastructurally mediated practices. Rather than treating South Asia as a latecomer to digital history, this approach highlights the region as a site of early and complex engagements—albeit ones shaped by logics of bureaucracy, postcolonial nationhood, and infrastructural scarcity.

Ultimately, the paper advocates for a critical historiography of digital history that goes beyond inclusion to ask: what kinds of digital historical practices were possible under postcolonial conditions? What does the history of computing look like when told from the vantage point of state record rooms, legal indexes, and malfunctioning terminals in regional government offices? And how might re-examining these silences and fragments help redraw the map of digital history's global evolution?