

Author workshop: How computers entered the classroom, 1960-2000

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Meeting-ID: 699 2788 1253

Code: 228905

Organizers: Carmen Flury, Michael Geiss

	July 15, 2021	July 16, 2021
9:30-9:45	Welcome address	
9:45-10:45	Clémence Cardon-Quint: «Informatique pour tous», France 1985. Pedagogy, Industry and Politics (5') Comment: Rosalía Guerrero (15') Joint discussion (40')	Rosalía Guerrero: Computing instruction in lower secondary and upper secondary Swedish schools from the late 1960s to the 1990s: Teachers responding to the challenge (5') Comment: Iveta Kestere & Katrīna Elizabete Puriņa-Biezā (15') Joint discussion (40')
10:45-11:00	Short coffee break	Short coffee break
11:00-12:00	Iveta Kestere & Katrīna Elizabete Puriņa-Biezā: Digital change in the classrooms of an authoritarian country: The case of the Soviet Latvia (1985-1991) (5') Comment: Carmen Flury (15') Joint discussion (40')	Mate Szabo and Lajos Somogyvári: How the computers arrived in the Hungarian schools: a long journey from the late 1950's to early 1980's (5') Comment: Christian Machado-Trujillo (15') Joint discussion (40')
12:00-13:00	Lunch break	Lunch break
13:00-14:00	Michael Geiss: Computer education in a small but highly decentralized country: the case of Switzerland (5') Comment: Mate Szabo and Lajos Somogyvári (15') Joint discussion (40')	Carmen Flury: A common goal, but different perspectives. The promotion of public-private-partnerships to bring computers into German schools in the 1980s (5') Comment: Clémence Cardon-Quint (15') Joint discussion (40')
14:00-15:00	Christian Machado-Trujillo: Educational modernization, international influences and the arrival of computers in Spanish schools (1970-1990) (5') Comment: Jörgen Nissen (15') Joint discussion (40')	Jörgen Nissen & Linnéa Stenliden: National campaigns to computerize Swedish schools 1984-2002: competitiveness and well-being of a nation (5') Comment: Michael Geiss (15') Joint discussion (40')
15:00-15:30		Wrap up and next steps

How computers entered the classroom

In historical research, there are now numerous studies devoted to digital change in Europe. “Digital change” is used as a bracket term for all the structural adjustment processes – political, economic, social and cultural – that society is undergoing both as a result of and in response to the progressive introduction of digital technology into the everyday lives of people. As computers became gradually smaller, more affordable and easier to use, they spread from universities and research institutions to offices, small companies, libraries, private homes and classrooms. Their users were not just scientists and engineers anymore, but the general public. Digital technologies gradually permeated everyday tasks and interactions at home, work, education and leisure. This development is often associated with the notion of an emerging „digital society“.

In research on the history of education, however, the question of how computers conquered the classroom has so far been totally neglected. In his groundbreaking study on the implementation of new information technologies in Silicon Valley schools, Larry Cuban, almost twenty years ago, impressively demonstrated the importance of a historical perspective for understanding the digital present. But up until now, only few historians have taken up this challenge. This situation is currently changing as numerous research projects and historical publications address the role of education and training for the emergence of a “digital society”. However, comparative or transnational studies are still rare in recent research. It is also hardly possible to obtain an overview of the different regional and national developments. While studies are now available for the USA, the introduction of computers in European schools has not yet been comprehensively presented. We would like to answer this shortage with an anthology that deals with the introduction of various microchip-based technologies in schools and universities in Europe. National case studies on developments in Europe's North and South, East and West will be invited, as well as historical studies of transnational entanglements in the introduction of new technologies in the classroom.

The individual contributions will focus on the question of what were the driving forces behind the introduction of computers and other microchip-based technologies in education. In a heuristic approximation, government agencies, computer hard- and software producers, telecommunication companies, particularly interested teachers, computer enthusiasts, students, publishers of teaching materials, professional and business associations can be named as influential actor or interest groups. Studies on public schools and universities should be considered, as well as vocational schools, which are likely to play a special role in the introduction of computers. The individual historical case studies should focus not only on the purchase and implementation of digital hardware, but also on the acquisition and development of specialized software for educational purposes. However, the history of the introduction of computers in the classroom cannot be told without considering the didactic discussions about the teaching of computer literacy and IT competence.

A further distinction is central to this anthology: the articles concentrate primarily on technology or computer education after 1960. Thus, the focus should explicitly be on the introduction of computers and other microchip-based technologies that are closely related to the digital change in society. While there are already a number of articles on the history of automatic teachers, technological teaching aids, language laboratories or the idea of programmed instruction, the educational history of new information technologies in Europe has hardly been written yet. There are of course connections and entanglements between the history of educational media or technologies and the history of computer education. And the historical actors do not always make strict distinctions here either, but constantly bring the two historical lines together. However, while the history of educational technologies has been already well researched, this is not the case for the history of education in the context of digital change. For this reason, we propose a shift in perspective that takes greater account of the broader history of economic and technological developments in order to understand changes in schools and classrooms.

This distinction also explains the limitation of the investigation period. While new educational technologies have been intensively debated and tested since the end of the 19th century, the question of computer literacy only arose with the invention of the electronic mainframe computer. These computers were then able to enter the classroom when appropriate terminals allowed access to remote computer systems. But a real breakthrough

came with the invention of the personal computer, which helped the decentralized parallel use of microchip-based technologies in business, administration, science and private households to gain ground and also confronted schools with the question of how they should deal with the newly arising challenges.

We mention here just a few of the possible challenges that the various stakeholders might have faced: Again and again, teachers and students had to appropriate the new technologies. They had to manage the tension in the classroom between the logic and dynamics of new technology on the one hand, and established processes, traditional roles and structures on the other. Teachers and students needed to be prepared for the use of computers for educational purposes, by learning about and with computer technology. Hardware producers and software developers, on the other hand, had to tailor their products to educational needs, and convince teachers and school authorities of their value and usefulness. At the same time, the whole educational system was confronted with the threat of an increased corporate influence on public schools and universities. And the traditional producers of teaching aids suddenly faced fierce competition from the new technology companies, which challenged their privileged access to classrooms. While these examples illustrate just some of the difficulties and struggles that arose from the introduction of computers in the classroom, there is no doubt about the fact that new information technologies have affected education and training systems and the involved stakeholders in a myriad of ways.