

# Education, Technology and Inequalities in the 20th Century: A Workshop

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Thurgau University of Teacher Education (PHTG)  
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In 2008, the economists Claudia Goldin and Lawrence F. Katz published “The race between education and technology”. Drawing on an impressive set of quantitative data and secondary literature, Goldin and Katz offer a sharp analysis of the relationship between education, technology, economic development and inequality in the US in the 20th century. Although the book was reviewed in some of the leading history of education journals (Cisneros 2009; Guryan 2009; Carpentier 2011), it has mainly been taken up in economics, economic history and historical human capital studies (Didenko 2020; Bleakley & Hong 2021; Frankema & Waijenburg 2023). In his 2010 essay, “Someone Must Fail: The Zero-Sum Game of Public Schooling”, however, education historian David Labaree provided an informed and detailed critique of the book’s main argument. The study has also been an important anchor for historical research on 19th century education funding (Westberg 2013; Schalk 2015).

In the last decade, the historical entanglements between education, technology and inequalities have been also researched elsewhere. Several historical studies have been published that examine the relationship between technological development and education (Day Good 2020; Hof 2021; Flury & Geiss 2023). Inequalities and discrimination in the use of educational media and technologies have been addressed in recent historical research on the US (Cain 2021; Watters 2021).

This seems to be a welcome opportunity to shed new light on the relationship between education, technology and inequality in the 20th century. In a planned workshop, we aim to bring together historians from different backgrounds working on the consequences of technological change for education (and vice versa). The contributions may address different dimensions of inequality (race, class, gender, disability) and focus on where education reinforces existing inequalities by adapting to technological change, and where it is able to mitigate them.

First, the introduction and use of new technologies in compulsory education reflects issues of inequality, presenting both a risk of exacerbating existing patterns of discrimination and an opportunity to problematize and address them. This can be seen, for example, in how curricular efforts to strengthen science school curricula or educational computing have prioritized access to knowledge and technology for certain social groups over others. In the second half of the 20th century, for example, discrimination in science education was explicitly addressed in the education of girls. However, clear gender and class biases seem to be evident in the computer literacy campaigns of the 1970s and 1980s. At the same time,

computers seemed to offer people with disabilities opportunities to participate more in educational and social life (Petrick 2015).

Second, technology has a direct impact on skill formation regimes. Entire professions are being created by new technological developments – others are left behind by automation. Technological innovations raise skill demands. Thus, they create the need for new training programs or further training and challenge the established division of occupational profiles. Skill formation regimes often reflect existing class and gender inequalities. Particularly in occupations that are strongly characterized by social gender norms, the technological skills required may also be interwoven with gender stereotypes.

Technologies are, third, also challenging academic education. New degree programs or even scientific disciplines are being created and the hierarchies between Humanities and Sciences are changing. As in computer science, new opportunities are opening up for previously disadvantaged groups, but at the same time existing inequalities are also being reinforced. In addition, technological change is accelerating academic drift and putting pressure on vocational training.

Finally, the link between technology and social inequality also plays a role in extracurricular education. This ranges from clubs for young hobby electronics enthusiasts and computer summer camps, to programmes to support talented and high-achieving students in computer science, to empowerment activities for marginalized groups.

We invite historians from all over Europe to the workshop who study one of these or related topics. In their presentations, they should work out how education and new technologies relate to existing and new inequalities. The workshop will be held at the Thurgau University of Teacher Education (PHTG) on Lake Constance, which is easy to reach from Zurich airport and the main train stations in Zurich and Constance. Travel and accommodation costs will be covered. To apply, please send an abstract of no more than 500 words to michael.geiss@phzh.ch by Oct 1st 2024. Feedback on the acceptance or rejection of the proposal will be provided by Nov 15 2024. For the workshop, participants are expected to submit an extended abstract or a draft paper, which will be read by all participants in advance.

## References

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