

Summer School

# Doing Qualitative Education Research in/of/through Algorithmic Environments

18-20<sup>th</sup> September, 2023, HSU Hamburg

Over the past decades, the ongoing digitization, algorithmization, and platformization of education have not only revealed far-reaching effects on education policy, governance, and practice, but equally on how to effectuate qualitative research. On the one hand, education technologies or digital policy platforms increasingly require new qualitative research method(ologie)s which are suitable to capture the complex socio-technical relations and dynamics of algorithmic environments (e.g., dealing with continuously updating material, with algorithmic blackboxing, etc.). On the other hand, equally more 'classical' qualitative research methods (e.g., content analysis; ethnography) are becoming increasingly digitized, thus posing new questions not only around researchers' methodological responsibility and care, but equally around how algorithmic processing (e.g., the use of AI-informed qualitative content analysis, or the digitization of data management) affects the very basics of 'meaning production' in qualitative research. Lastly, the growing prevalence of algorithmic technologies in education has also resulted in a rise of participatory and design-oriented (post)qualitative research approaches that are deliberately oriented towards a critical understanding and co-creation of algorithmic environments. Yet, such approaches equally pose a number of challenges to researchers who not only shift positions from 'experts' or 'observers' towards 'co-creators', but also need to deal with ongoing, process-oriented data collection and analysis.

The summer school *Doing Qualitative Education Research in/of/through Algorithmic Environments* offers a forum for emerging scholars (PhD students, Postdocs) to systematically engage with these themes, to broaden their method(ological) knowledge of how to research education (in/through) algorithmic environments, and to accordingly reflect and further develop their individual projects. Well-known international experts will introduce and discuss different method(ological) approaches, while participants equally have the opportunity for individual conversations with the experts around their project, for exchange with peers around similar research interests (e.g., digital policy networks or classroom technologies), and, consequently, for a further substantiation of their international research networks.

## Speakers and Themes of the Summer School

### 1. Theme: (Digital) Network Ethnography in Policy Analysis

**Dr. Anna Hogan, University of Queensland, Australia**

Education policy is embedded in knowledge systems that are connected by a global information system. The internet allows an immersive approach to policy analysis in which researchers can investigate and understand policy networks that have been historically difficult to evidence. In this session, Anna presents her approach to network ethnography, and uses the case of funding in the Australian school context to highlight how an algorithm can be used to investigate online networks. She shows how 400,000 tweets can be mined and analysed to provide insights for qualitative research, and in doing so, provides practical steps and responds to some common critiques leveraged at digital, algorithmic methods of education policy research.



Anna Hogan is a research fellow in the School of Teacher Education and Leadership at Queensland University of Technology. Her research interests broadly focus on education policy and practice, with a special emphasis on the privatisation and commercialisation of schooling.

### 2. Theme: Hermeneutic Analysis of classroom interaction, including educational technology

**Dr. Sieglinde Jornitz, DIPF | Leibniz Institute for Research and Information in Education, Frankfurt/Main, Germany**

The increasing use of educational technology in school challenges qualitative methods of analysis. While focusing on spoken language or behavior in classroom, the digital interaction of students with computers and software is more 'silent'. Qualitative analysis has to adapt its methods to make speak these kinds of often visually triggered digital surfaces. Why did a student choose to click on a certain answer or how does the dashboard lead the view on students' school performances? The workshop will offer a space for looking closer on the software, its initiating student action and will discuss possibilities and restrictions of hermeneutic analytical methods.

Sieglinde Jornitz is senior researcher at the Leibniz Institute for Research and Information in Education. She is part of a team that initiates and supports international networks in education. Her research is focused on school education and education reform. Currently she adapts hermeneutic methods for analyzing digital phenomena in school.



### **3. Theme: Analyzing digital education platforms – The IUDE Framework** **Prof. Dr. Mathias Decuypere, KU Leuven, Belgium**

The aim of this lecture is to give a theoretical and methodological introduction in platform studies, and, more particularly, to provide participants adequate tools in order to qualitatively research digital education platforms and related digital environments. In a first part, a conceptual elaboration of what digital education platforms are (and do) will be provided. In a second part, through a series of worked examples, the IUDE (Interface-Usage-Design-Ecology) framework will be presented: a heuristic toolbox that allows to research digital education platforms from a variety of methodological and analytical perspectives.



Mathias Decuypere is Associate Professor at the Methodology of Educational Sciences Research Group (KU Leuven, Belgium). His research interests focus on what digital technologies enable in education, as well as what they render impossible. He has extensively studied and published on education platforms, apps, as well as the influence of algorithms and data.

### **4. Theme: Researching data visualizations in education** **Prof. Dr. Helene Ratner, Aarhus University, Denmark**

Data visualizations such as dashboards or progression curves signpost the emergence of educational institutions and students as data objects, which can be observed and compared on a computer screen. As the main 'interface' through which educational administrators and educators access data, they shape educational administrators' and teachers' socio-technical ways of 'seeing' educational quality and learning. As important agents in questions regarding accountability, automation and "learnification" of education, this lecture introduces data visualizations as a research object and discusses different analytical approaches associated with Science and Technology Studies.

Helene Friis Ratner is Associate Professor at DPU - Danish School of Education (Aarhus University, Denmark). Her research examines how digital and data-driven technologies such as algorithms and data visualizations are shaping educational institutions. She currently leads two research projects, "Data Visions" (<https://projects.au.dk/datavisions>) and "Algorithms, Data and Democracy" (<https://algorithms.dk>), examining predictive algorithms in public administration.



## **5. Theme: Smartphone-based analysis in educational settings**

**Prof. Dr. Fritjof Sahlström, University of Helsinki, Finland**

The aim of this lecture is to give a theoretical and methodological introduction to smartphone-based analysis in educational settings, to enable students to conceptualize mobile phone use in classroom settings, both in school-related and non-school-related matters. The lecture will briefly present the historical development of classroom interaction, and the concurrent development of classroom interaction research, before focusing on the core content: how to think about, talk about, document, analyze, represent, write about and communicate the insights of the analysis of screen-mediated classroom sociality.



Fritjof Sahlström is Professor at the Faculty of Education at the University of Helsinki in Finland. His research focuses organization of classroom interaction, in particular interactional constraints and affordances for student participation. In recent years, he has focused on how classroom screen use affects classroom.

## **6. Theme: Participatory and design-based research in/through algorithmic environments**

**Prof. Dr. Erik Grönvall, IT University of Copenhagen, Denmark**

This lecture will introduce the field of Participatory Design and Co-design and the role of knowledge sharing in these disciplines. The lecture will then describe the ongoing move, in for example some municipalities, from structured to unstructured learning situations. It will provide examples of learning platforms that support, in different ways, on-site learning and co-design inspired competence development. It will also present how co-design can have a role not only in the development of actual learning platforms, but also in everyday platform use. The lecture will for example use co-design concepts to analyse and understand content creation and grassroots-based competence-development.

Erik Grönvall is Associate Professor and Head of the Co-Design research group at the Digital Design department, IT University of Copenhagen (Denmark). His research is situated within the HCI and CSCW research domains and is often Co-design driven. He is involved in numerous co-design projects on learning in public organizations.



## How to apply?

We invite emerging researchers (PhD students & Postdocs) from Germany, Europe and beyond, to submit an application, including

- (1) a CV
- (2) a short description of your current (main) research project (max. 500 words)
- (3) your motivation in participating in the summer school (max. 250 words)

to [SummerSchool2023@hsu-hh.de](mailto:SummerSchool2023@hsu-hh.de) by **March 15<sup>th</sup>, 2023**. Since the summer school should foster close exchange and mentoring, the organization committee will select a group of ca. 20 participants (based on projects' fit with the summer school theme, participants' motivation and background heterogeneity) and confirm acceptance by April 30<sup>th</sup>, 2023.

## What else do I need to know?

The summer school will be held in English and sufficient language skills are required. There is no participation fee. However, participants will need to cover their own travel and accommodation.

If you have any other questions, please reach out to us via

[SummerSchool2023@hsu-hh.de](mailto:SummerSchool2023@hsu-hh.de)

We are very much looking forward seeing you in Hamburg!

## Who are the organizers?

Prof. Dr. Sigrid Hartong & M.A. Nina Brandau

Professorship for Sociology (Transformation of Governance in Education and Society),  
Helmut-Schmidt-University Hamburg

For more information on the organizers see:

<https://www.hsu-hh.de/sozgov/en/>

<https://unblackthebox.org/en/>

<https://www.smasch.eu/en/>