

## 15. Investigating the Datafied Society

### Entrepreneurial Research as Approach

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#### Abstract

Humanities scholarship is essential in the present-day datafied society. This contribution discusses the interdisciplinary research platform Utrecht Data School (UDS) and its entrepreneurial research approach for investigating the impact of datafication and algorithmization on culture and society. This research approach is informed by close cooperation with external partners, including (local) government organizations, (public) media, companies, and NGOs and accelerates areas in which traditional academic research in the humanities have often said to fall short: societal engagement, knowledge transfer, and the application of research findings. However, as reflected on in the conclusion, it is not without its challenges.

**Keywords:** action research, societal impact, interdisciplinary, external partners, university

Humanities scholarship is essential in the present-day datafied society characterized by increasing datafication and the offloading of decision-making to inscrutable algorithms (van Dijck 2017; Underwood 2018). As Lisa Parks (2020, 644) points out, “digitization and datafication have extended and altered the kinds of knowledge media scholars need in order to research and teach in the field and prepare students for work and life beyond campus.” Indeed, teaching and researching this transformation raises a series of challenges:

1. Relying on existing expertise and methods is not sufficient; we have to revisit our research questions and methods (van Es et al. 2021). Gaining

input from other disciplines such as law, ethics, sociology, and so forth is essential.

2. Access to data (and algorithms) is uneven. Moreover, its collection and analysis often require technical skill (boyd and Crawford 2012, 673–75).
3. Continued cuts to the humanities and increased grant competition have contributed to inequalities in the distribution of funds.
4. Studying datafication up close requires access to the development and use contexts of data and algorithms, but it often happens behind closed doors.

In response to these challenges, we established the interdisciplinary research platform Utrecht Data School (UDS). Here, we investigate how datafication and algorithmization impacts culture and society. This research is informed by our close cooperation with external partners, including (local) government organizations, (public) media, companies, and NGOs. These projects provide access to real-life data and generate qualitative data—pertaining data discourses and practices—acquired through ethnographic fieldwork.

Our action research approach enables us to connect our experience in analyzing cultural complexity, history, ethics, and media (practices) with digital methods and data analysis in the field (van Es and Schäfer 2017, 12). In working with external partners, we have found collaboration across disciplines essential. We therefore take an active role in the university's focus area Governing the Digital Society (bridging scholars in media studies, gender studies, law, ethics, public law, and governance with those in computer science and applied data science), various special interest groups, and AI labs. In these projects, we bring to the table our critical attitude toward media technologies, culture, and society. These transdisciplinary research processes are developed to facilitate mutual knowledge transfer and joint action between academics and professionals, between citizens and policy makers.

## The “What” and “Why” of Entrepreneurial Research

UDS explores and develops tools for what has been termed “entrepreneurial research” (Schäfer 2018). It should not be mistaken for research *into* entrepreneurship (e.g., Ucbasaran et al. 2001; Perren and Ram 2004; Landström and Lohrke 2010) or academic entrepreneurship (e.g., Etzkowith 2003), which describes the utilization of research findings for commercial ends. Entrepreneurial research, by contrast, responds to demands in the field that

researchers want to investigate. We develop products and offer services that not only co-finance our research but also enable us to embed ourselves in the societal domains where we want to study the impact of datafication and algorithmization. The entrepreneurial practice accelerates areas in which traditional academic research in the humanities have often said to fall short: societal engagement, knowledge transfer, and the application of research findings (Schnapp 2017).

At Utrecht University and other institutions, the notion of open science is now intricately connected with socially engaged research and transdisciplinary efforts to respond to the great challenges of our time: digitization, pandemic, migration, and climate change (Miedema 2021). While traditional humanities research is often focused on conceptualizing societal phenomena and reflecting on them in the context of their respective disciplines' theoretical frameworks, entrepreneurial research is primarily engaged in describing and mapping societal phenomena, identifying practical problems, and producing applicable solutions. This requires building iterative research processes that are close to the application in order to engage in testing and optimization within the area of application. Utrecht Data School's practice shows multiple examples: an investigation of bias in search algorithms of job websites immediately led to changes (van Es et al. 2021), and an inquiry into algorithms and fundamental rights led to developing a Fundamental Rights and Algorithms Impact Assessment (FRAIA) and to courses for training government employees in applying the impact assessment. In these projects, we always involve students (e.g., as interns, research assistants, tutors, or thesis students) and recent graduates from our programs, who are hired as junior researchers.

As computer scientist Ben Shneiderman points out, research and societal impact can be even more effective by structurally combining applied and basic research (Shneiderman 2016). This approach has consequences for teaching, research, and public engagement. An example is our impact assessment for data projects, the Data Ethics Decision Aid (DEDA), which we started to develop in close cooperation with municipal data analysts starting in 2016. The paper we published on DEDA was not a mere concept, an idea of how to advance responsible data practices, but rather the result of developing, testing, optimizing, and implementing a workable impact assessment for data projects (see Franzke et al. 2021). Its development responded to municipalities' need for greater awareness of the ethical issues involved in data projects and the ability to communicate to stakeholders, representatives, and the public how data use in these projects has been deliberated.

DEDA fulfills a dual purpose by facilitating value-sensitive design and dialogical deliberation of data projects. It is currently used by various municipalities and educational organizations in the Netherlands. Importantly, and in line with our entrepreneurial approach, it is not just a practical tool but rather also enables participatory observation for studying organizations and their discourses on data and power (Siffels et al. 2022). These insights are used to engage as academics in a broader, critical examination of the issues raised by datafication. It thus contributes to scholarly discussions on data ethics.

## Challenges Ahead

In conducting entrepreneurial research, maintaining academic independence is of utmost importance, which is why we have formulated criteria and guidelines for collaboration. Projects at UDS must align with our strategic research themes, promote academic freedom, and allow for academic publication. Most importantly, thanks to Utrecht University's funding of some basic operational expenses and to research time, we are financially independent of external partners. We therefore can, and sometimes do, decline projects. Having to rely solely on contract research would create unwanted financial dependencies. Furthermore, it would create an undesirable bias toward studying issues that emerge *in the field today*. So while entrepreneurial research is a useful approach to studying our contemporary datafied society, continued investment in basic research remains essential.

As UDS seeks to further strengthen the research-education-impact triangle through entrepreneurial research, there remain challenges ahead. Universities have yet to catch up with these new ways of working, since it requires new forms of support for financial and legal matters as well as job titles (e.g., project managers who also publish and teach), but it also demands rethinking how academics are recognized and rewarded (particularly in valuing teamwork over individualism). In the case of the latter, Utrecht University is already taking active steps as part of its Open Science Programme (Utrecht University 2021). Aside from the need for institutional transformation, this type of research also demands that we as researchers learn how to communicate with external parties about our research. Here, we must consider how findings can be translated into implementation and perspectives for action or policy. Rather than offer critical commentary from the sidelines, it offers an opportunity to co-shape a datafied society by supporting ethical and responsible data practices.

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