

**Assembling Expertise:
Taming ‘Problematic’ Algorithms in New York City**

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Vorbemerkung

Gerne möchte ich den TeilnehmerInnen dieses Tracks einen Einblick in mein laufendes Forschungsprojekt geben. Das Projekt führe ich gemeinsam mit Malte Ziewitz (Cornell University, USA) durch. Unser Papier adressiert eine Frage, die eng mit dem wachsenden Einfluss digitaler Plattformen auf den öffentlichen Diskurs verbunden ist: Wie entstehen neue Formen der (Algorithmen-)Expertise? Und daraus folgend: Ermächtigt uns ein Verständnis dieser Entstehungsprozesse zum erfolgreichen Widerspruch? Der untenstehende Abstract ist aus einem unserer Arbeitspapiere entnommen und daher auf Englisch. Den Vortrag in Hallstatt würde ich allerdings auf Deutsch halten.

Abstract

Algorithmic systems pose an interesting conundrum. On the one hand, they are increasingly employed in organizations to automate all kinds of expert work. Using novel computational techniques like machine learning, AI, and large-scale data analytics, these systems are deployed to make more accurate decisions, predict behavior, and be more reliable than human judgment (Faraj, Pachidi, & Sayegh, 2018; Schildt, 2017; von Krogh, 2018). Recent examples include the use of software models in bail decisions, automated hiring platforms, and performance measures in the workplace. On the other hand, the growing use of these technologies has raised a number of concerns. As researchers have shown, algorithmic systems can perpetuate old biases and generate new ones, often in ways that are not obvious to the naked eye (Eubanks, 2018; Pasquale, 2015; Sweeney, 2013). Policy-makers have thus begun to push for algorithmic accountability and oversight – a task which almost inevitably requires experts that understand and evaluate these technologies. In other words, the more we substitute machines for human experts, the more we are in need of experts that can help us govern these machines. So what is the nature of this new form of expertise and who might be able to provide it?

The answer to this question is not an obvious one. Neither algorithm audit nor AI risk analysis are currently ‘professions’ in any sense of the term. Rather, such activities tend to involve a range of individuals and institutions that lay claim to expertise, including lawyers, computer scientists, and social scientists. In addition, a new cast of so-called ‘domain experts’ has entered the scene, i.e. people who specialize in the specific field of action in which the system is deployed. As a result, what counts as ‘expertise’ in regulating algorithmic systems is largely up for grabs – an ‘interstitial’ (Eyal & Pok, 2015, p. 43; Furnari, 2014), ‘speculative’ (Hilgartner & Lewenstein, 2004, p. 1), and ‘agonistic’ (Crawford, 2016, p. 77) space found at the edges of technological systems.

In this paper, we aim to better understand how expertise is being organized, achieved, and challenged in the context of emerging algorithmic systems. Drawing on an in-depth case study of attempts to establish a new regime for algorithm governance in New York City, we explore how expertise has become a focal point for organizing the governance of algorithmic systems. Unpacking the process, we show the different forms of relational work through which actors lay claim to expertise and try to establish their positions. In doing so, we expand the literature on occupational emergence and show how the work of assembling expertise is a process that underpins (yet not necessarily determine) the creation of an occupational mandate. We further show that expertise is not just a response to an emerging technology, but also a resource that is actively mobilized for shaping the emerging governance of such technologies. Expertise, then, is both in need of organizing and an organizing principle by itself.

The paper is organized as follows. After a brief review of work in organization studies and science and technology studies (STS) that has addressed the idea of expertise as both an analytic resource and a topic for inquiry, we find that a relational approach is particularly useful for theorizing struggles over expertise outside established occupations and professions. We then use this analytic lens to present a case study of recent attempts at governing algorithmic systems in New York City's departments. We show how between 2013 and 2018 the question whether and how an automated decision system in NYC should be regulated centrally revolved around the question of who had what kind of expertise to do so.

Literature

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