

Beyond opening up the black box: Investigating the role of algorithmic systems in Wikipedian organizational culture

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Abstract: Scholars and practitioners across domains are increasingly concerned with algorithmic transparency and opacity, interrogating the values and assumptions embedded in black-boxed algorithmic systems, particularly in user-generated content platforms. I report from an ethnography of infrastructure in Wikipedia to discuss an often understudied aspect of this topic: the local, contextual, learned expertise involved in participating in a highly automated social-technical environment. Today, the organizational culture of Wikipedia is deeply intertwined with various data-driven algorithmic systems, which Wikipedians rely on to help manage and govern the “anyone can edit” encyclopedia at a massive scale. These bots, scripts, tools, plugins, and dashboards make Wikipedia more efficient for those who know how to work with them, but like all organizational culture, newcomers must learn them if they want to fully participate.

I illustrate how cultural and organizational expertise is enacted around algorithmic agents by discussing two autoethnographic vignettes, which relate my personal experience as a veteran in Wikipedia. I present thick descriptions of how governance and gatekeeping practices are articulated through and in alignment with these automated infrastructures. Over the past 15 years, Wikipedian veterans and administrators have made specific decisions to support administrative and editorial workflows with automation in particular ways and not others. I use these cases of Wikipedia’s bot-supported bureaucracy to discuss several issues in the fields of critical algorithms studies; critical data studies; and fairness, accountability, and transparency in machine learning — most principally arguing that scholarship and practice must go beyond trying to “open up the black box” of such systems and also examine socio-cultural processes like newcomer socialization.

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