INTRODUCTION

JOURNALISM AND ALGORITHMS



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It is no exaggeration to say that contemporary society is immersed in a broad process of platformization (Van Dijck et al., 2018), datafication (Mayer-Schönberger & Cukier, 2013; Van Dijck, 2014) and algorithmic performativity (Cheney-Lippod, 2017; Lupton, 2016; Dourish, 2016; Gillespie, 2010; Finn, 2017). These intertwined trends of platformization, datafication and algorithmic performativity (PDAP) (Lemos, 2020) correspond to the new phase of capitalism, a data or surveillance capitalism (Zuboff, 2015), whose dynamics are linked to five large companies (GAFAM – Google, Amazon, Facebook, Apple, and Microsoft) that control the digital economy through their platforms.

The platformization of society acts by the daily irradiation of data collection from digital platforms, about the smallest personal movements (like a message, posting a photo, writing a comment, buying something, visiting somewhere, etc.), generating inferences about behaviors, inducing actions. This basic data collection process is datafication, a different process from digitization, which simply consists of turning analog objects into digital ones.

Platformization and datafication are expressions of the performance of algorithms. They analyze large amounts of data and propose solutions to the most diverse problems. Their codes are kept as an industrial secret and are therefore opaque and dominated by an "epistocracy" (Danaher, 2016), generating a sense of neutrality, efficiency and rationality. If platformization and datafication are the forms of digital action in contemporary society, algorithms are the fuel that drives them.

Algorithms exert power and generate policy (Bucher, 2018) by modulating actions into a broad network of actors, influencing worldviews and, consequently, the direction of society and culture. Not only do they evolve with events, they also may change events themselves through complex assemblages of sociotechnical networks. The power of algorithms lies in the possibility of inducing sociability practices, shaping political actions and intervening in the way we produce knowledge (they choose, classify and present certain information).

This algorithmic performativity changes the ways we receive and process information. It is no longer about "getting what you see", as in the metaphor of graphical user interfaces (Wysiwyg), but about receiving information based on how we are viewed by the datafication processes on the platforms. This performativity is broad, diverse and immanent, producing value, engagement, effectiveness, memory. Therefore, immanent and pragmatic analyses, more interested in what the algorithm does than what it is, should be called to account for the phenomenon (Introna, 2016; Seaver, 2013).

Given the above, we can think of algorithms as media objects. They are, at the same time, "channel - code - message worldview", whose performances in "sending" and "receiving" are based on information choices to solve problems. Moreover, they are an important part of the operation of all recognized digital media.

From their understanding as cultural forms, the problematization of how these socio-technical networks act should consider the ways in which algorithms impact and are impacted by their interactions with society and its institutions. Journalism can be understood as one of the fields in which these interactions are most intensely perceived, especially when considering its historical configurations and purposes (Deuze, 2005; Deuze & Witsche, 2017; Park, 1955; Schudson, 1978, 1995; Chalaby, 1998; Alsina, 1989; Brin et al., 2004; Gomis, 1991; Franciscato, 2005). Algorithms are technical artifacts situated in contemporary developments, but they respond to an old longing, based on the imagination, about a certain capacity for accumulation and processing of information and knowledge (Stefik, 1996; Davis, 1998; Noble, 1999). Journalism and algorithms operate data to produce information, but their historicity is different.

This leads to important research questions that articles in this special issue address: what happens when these agents meet? How do algorithms interact today with journalistic practice? In what ways can journalism change as a professional practice and as a social institution? How does journalism interfere with the socio-technical configurations of algorithms? In what ways have artificial intelligence resources been activated to respond to the demands of the journalistic field? How does journalism face the challenges presented by the performance of algorithms? (Anderson, 2013; Coddington, 2015; Diakopoulos, 2015; Dörr, 2016; Lewis, 2015).

Beyond the volume of data and processing skills, the emergence of artificial intelligence systems seems to challenge the field of journalism in terms of the principles of the institution and the reconfiguration of the profession, from the point of view of the theories of journalism, its values (Carlson, 2017; Deuze, 2005, 2017), functions (Schudson, 2007), properties, semantic structure (Caswell, 2019) and practices (Joux & Bassoni, 2018). The scenarios where this relationship is taking shape are diverse and multi-layered, from the negotiation of identity and control between humans and machines in the adoption of algorithms in the newsroom (Wu et al., 2018) to the inequal power relationship between journalism and social media platforms, mediated by their algorithmic content distribution strategies (Sebbah et al., 2020).

Making sense of the mutual shaping of journalism and algorithms requires research that closely analyses developments in very concrete, precise settings, but also studies that take a wider, theoretical perspective, or that put this evolution in historical context. This special issue provides this variety of points of view to contribute to the understanding of the opportunities and the challenges at the intersection between journalism and technology today.

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