Big Data, autonomous action, and the dynamics of opinion formation

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Abstract: "The medium is the message", said McLuhan in 1964, to emphasize that the medium shapes and controls human action by altering the scope and form of communication. In the 21st century, the development of new statistical tools for the analysis and modelling of massive amounts of data has changed the medium, brought about by information and communication technologies (ICTs), with new epistemological and ethical challenges. In this presentation, we discuss positive and negative impacts of ICTs driven by Big Data analytics on the dynamics of opinion formation. The central question that guides this work is: What are the possible implications of the extensive use of information and communication technologies for the dynamics of autonomous opinion formation? Our hypothesis is that ICTs driven by Big Data analytics might impact human autonomous action by the growing process of mediating human daily activities through the automated generation, storage, and integration of personal data. To address our question, we firstly investigate the potential differences between *thin mediation*, in which the aim of the medium is to convey a message from the source to the receiver, but it does not automatically retain the content of the communication (such as the telephone); and *thick mediation*, where the purpose of the medium is not solely to convey a message, but to store it in integrated massive databases, with the potential of reusing, reanalysing, repurposing, and recombining the data (Collins et al., Ethical Reasoning in Big Data, 2016). Secondly, we discuss the potential role of thick mediation in the dynamics of autonomous opinion formation. For the purposes of this work, it is considered that: (1) Opinions maintain co-dependent relationships with each other, forming networks with some degree of cohesion; (2) The formation of opinions includes inferential processes, but is not restricted to them, involving emotional aspects; (3) Opinion networks need to be sufficiently recognizable by the agent to create strong dispositions in him/her to act in a certain way, under given circumstances; (4) Opinions emerge from social interactions that involve meaningful information and they are, in general, more volatile and less stable than beliefs. In turn, the concept of Autonomy is provisionally characterized as the individual and collective ability to perform actions without coercion: a person P will have a degree of autonomy if P possesses reliable, anticipatory, meaningful information that allows the selection of opportunities for present and future actions, and P has the capacity to choose, regardless of coercive external pressure. Finally, we indicate possible ethical challenges of thick mediation technology, in relation to processes of collective autonomous opinion formation.

Keywords: Opinion formation, human autonomy, thick mediation, Big Data.