

Big Data and autonomous opinion formation: Challenges from the Complex Systems perspective

Maria Eunice Quilici Gonzalez and Fernanda Farinelli

Philosophy Department, University of São Paulo State (UNESP) and FAPESP Brazil

How autonomous are our opinions in the digital information era, under the influence of Big Data? In the present work, this question will be discussed from a Complex Systems perspective, with emphasis on the positive and/or negative influences of Big Data on the process of opinion formation. We argue that on the one hand, Big Data resources might allow the empowerment of collective practices underlying the process of opinion formation, helping to strengthen the voices of minorities. On the other hand, they may threaten the privacy and autonomy of individuals during the stages of data collection and dissemination. By identifying the political, emotional, and ideological features of customers, Big Data strategies could be used for surveillance, affecting the autonomous processes of opinion formation and social behavior. We suggest that a Complex Systems perspective might permit qualitative and quantitative analysis of relational aspects of Big Data, helping to evaluate its likely impacts in the many layers of a networked society, as well as its effects in the dynamic process of opinion formation.