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Deborah Lupton
The Quantified Self. A sociology of Self-tracking. Cambridge, Polity, 2016, pp. 240

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As Deborah Lupton argues in *The Quantified Self*, everyday practices and bodily functions have been monitored, measured and recorded since ancient times. These practices are now reconfigured trough self-tracking technologies, which are designed to be mobile, implantable and wearable, to collect and transform – automatically or not – the everyday elements of individual and urban life into graphics, statistics, and behavioral patterns.

The sociological literature on self-tracking is recently beginning to emerge in a fragmented debate, given the complexity of this open-ended phenomenon. Indeed, several scholars have criticized self-tracking technologies for the further level of surveillance trough data (Kitchin and Dodge 2011). On the contrary, others underline the reflexive impact of data upon the users through a constant self-improvement and self-management (Ruckenstein 2014), as well as the emergence of new ways of participatory democracy with the formation of citizen-science and citizen-subjects (Gabrys 2014). The book outlines the discussions on self-tracking practices from various sociocultural theoretical perspectives, using the concept of "self-tracking cultures" in order "to encapsulate the view […] that the practices, meanings, discourses and technologies associated with self-tracking are inherently and inevitably the product of broader social, cultural and political processes" (p. 1).

The first chapter deals with the various and huge range of devices and technologies engaged in self-tracking practices, from early lifelogging project to quantified self. The rise of small-scale computerized technologies inspired a variegated range of methods for tracking and displaying bodily elements until the emergence of the Quantified Self movement in 2007. The lifelogging project is the first form of self-tracking. Gordon Bell has used this term in 1998 to specify his habit of recording through technologies the different aspects of everyday life like conversations, e-mails, films, photos, and so on. Examining how often the terms "self-tracking", "lifelogging" and "quantified self" have been used in Google searches, Lupton establishes the popularity of the term "quantified self" that overtakes definitively the other two in 2012. The term "Quantified Self" invented by two editors of the magazine *Wired*, Kevin Kelly and Gary Wolf, becomes a general term for indicating self-tracking practices that

have an important role in health promotion and in everyday life.

Moreover, she shows that the list of self-tracking tools available to track daily activities is very vast from wearable, implanted and mobile technologies, to sensors embedded in bodies and in the urban space. Nevertheless, the author underlines that sociological academic studies on how people are engaging in quantified self-practices are very few.

In the second chapter, Lupton explores the different theoretical perspectives for analyzing self-tracking cultures, underling the importance of the sociomaterial perspective for studying the digital life. According to the author, sociomaterialism is relevant to understand the assemblages of human and nonhuman actors in order to analyze "the ways in which people incorporate objects into the routines of their everyday lives – or effectively how they become entangled in assemblages with these objects" (p. 41).

Then the author pays attention to the notion of *knowing capitalism* to denote the new form of global economy, in which digital data and particularly big data become commercially profitable because offer unprecedented opportunities to make predictions and trend patterns on human behaviors, healthcare and public wellbeing, healthy environmental and so on. Moreover, the self-tracking cultures promote the ideal neoliberal citizen, who must be responsible and capable of self-reflection and acquire self-knowledge. From another perspective, the self-tracking practices are just another approach to manage and control owns embodiment. Here, the attention is on the body intended as a site of identity and information that can be transformed in digital data in order to master the uncertainties of the contemporary society. Nevertheless, the digital data raise important privacy issues. As Lupton underlines, some scholars used the Foucault's concept of panopticon in order to highlight "how external rationales of surveillance may be internalised, so that people engage in self-monitoring not only because they can never be sure whether hidden others are watching them, but also because they have accepted these rationales as part of practices of the self" (p. 59). This form of invisible but participate surveillance is defined *dataveillance*.

The third chapter presents an overview of the ways in which self-tracking cultures are shaping the concepts of self and body. Therefore, she reports some interview and articles in which self-trackers underline the achievement of self-knowledge, self-management, and self-improvement through the uses of these technologies. In this sense, self-trackers monitor reflexively their own selfhood, who becomes viewable, quantifiable, thus comparable through digital data, endorsing the ideal notion of responsible, productive, flexible and efficient citizen. Therefore, the body is portrayed as a machine that produces measurable and quantifiable data, which can be used to understand selfhood in a scientific way. At the same time, self-tracking technologies are personal and biographical, becoming an archive of everyday practices, interactions and bodily functions, so a repository of significance and emotions.

The author underlines that the uses of these technologies are reconfiguring the concepts of public and private. They promote a voluntary self-surveillance with the possibility by second and third parties to surveil private life, but also the opportunity to extend citizens' control into public spheres. According to Lupton, users become part of heterogeneous network of human and nonhuman actors, in which the opportunity to share experiences offers both new ways to facilitate a participatory surveillance, but also the generation of reflexive self-monitoring practices in order to became expert users of their selves.

The fourth chapter explores the diverse aspects of keyword "data". Recording personal information, the users generate assemblages' data that can be useful to visualize and materialize with graphs or statistics some elements of body/self not otherwise perceptible, in order to change or just analyze their behavioral patterns in a reflexive way. Beyond, Lupton emphasizes that even if the numbers are presented as neutral and objective they are always socially constructed.

The last chapter discusses the political and privacy issues arising from the spread of big data and predictive algorithms. Indeed, the small data aggregated in big data are valuable for second and third parties in order to monitor and control but also to manipulate the population. In this perspective, there is a fine difference between pushed and imposed self-tracking.

Hence, some agency, particularly health-insurance agencies, are persuading people to participate in self-tracking practices. As Lupton underlines, the type of pushed self-tracking adheres to the soft power of neoliberalism governance, that encourage citizens to engage in the approach of promoting and preventive health in which the focus is on the develop of self-responsibility in order to achieve the ideal self. While imposed self-tracking can be used in drug programs, or in family law, but also in some workplace. This arise controversial consequences and important political issues about the loss of privacy. However, there is a communal self-tracking, for example the community of Quantified Self movement or the initiatives of citizen science, in which the open and accessible data sets are seen as a way for the citizens to learn from data shared by others and to plan their activities in the smart city. Moreover, the users can respond at the dataveillance with resistant strategies as the choice of certain devices or the use of several software that obscure personal information with the production of ambiguous and false data.

This book incorporates different theoretical frameworks, in which the sociomaterial perspective is represented as one of the most useful for analyzing "the nature of humans' intertwinings with technologies" (p. 39), and for capturing the different aspects of self-tracking cultures. Adopting a thorough STS theoretical framework means, instead, considering cultures as elements of heterogeneous assemblages, in which technical, social, and conceptual bits and pieces are not distinct. In this way, techno-

logical practices exist only in a heterogeneous alignment, in which science and technology – technoscience – work by translating material and social from one form into another (Latour 2005). This could suggest studying the intra-actions between humans and nonhumans actors, objects and subjects in their mutual constitutions, and rethinking the notions of embodiment that "is a matter not of being specifically situated in the world, but rather of being of the world in its dynamic specificity" (Barad 2007, p. 377).

Nevertheless, the book has the merit of being a map of the emerging and fragmented self-tracking literature. It looks like a captivating challenge for STS scholars, called to focus on the ontological and epistemological strength of techno-scientific approaches, in order to put into question the digitalization processes.

References

Barad, K. (2007) *Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning*, Durham, SC, Duke University Press.

Gabrys, J. (2014) *Programming environments: environmentality and citizen sensing in the smart city,* in "Environment and Planning D: Society and Space", 32 (1), pp. 30-48.

Kitchin, R. and Dodge, M. (2011) *Code/space: Software and everyday life*, Cambridge, MA, MIT Press.

Latour, B. (2005) *Reassembling the social*: *An Introduction to Actor-Network-Theory*, Oxford, Oxford University Press.

Ruckenstein, M. (2014) *Visualized and interacted life: Personal analytics and engagements with data doubles*, in "Societies", 4 (1), pp. 68-84.