Book Review: Unreal Objects: Digital Materialities, Technoscientific Projects and Political Realities by Kate O'Riordan

In Unreal Objects: Digital Materialities, Technoscientific Projects and Political Realities, Kate O'Riordan explores how emerging and future technologies such as in vitro meat and fitness trackers are 'unreal objects' that are shaped and brought into being through the media and often hidden networks of financial investment. In inviting readers to think critically about the discourses and material structures behind technological hype, this book is an excellent analysis of the role of mediation in constructing visions of technoscience, recommends Yana Boeva.

Unreal Objects: Digital Materialities, Technoscientific Projects and Political Realities. Kate O'Riordan. Pluto Press. 2017.

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Media plays a significant role in informing and shaping society and politics. But how does it construct the reality of technoscientific objects? If objects are understood as acting independently upon society outside their content or mediation, what is to be said about objects of a particularly unreal kind? These are some of the questions that Kate O'Riordan discusses in her book, *Unreal Objects: Digital Materialities, Technoscientific Projects and Political Realities.* Some of the unreal objects presented in the book are indeed materially non-existent as they haven't left the form of prospect. Others are part of everyday life, but produce non-material realities. 'This is then a book about emerging technologies, new things that promise to remake other realities,' describes O'Riordan (2).

The book, we learn, grew partly out of O'Riordan's work as a media analyst at the EU-funded technology assessment project EPINET. Here, she realised that while emerging technologies were the objects of analysis, what she was actually studying

were texts or mediations of them. Even if prototypes or trials existed, the way they were communicated was through reports, texts, visualisations and networks of actors and objects. Thus, O'Riordan's impression was that these objects were media objects first and foremost or, in others words, 'unreal'.

The term 'unreal', as explained in the introduction, is applied as a provocation towards current academic debates about materialism, objects and epistemology. It works 'to emphasize hierarchies of reality and of materiality and to demonstrate differential materialities and realities' (3). It also functions, as O'Riordan argues, to reveal how mediation acts out specific stories as definitive, while others remain untold. Moreover, she reminds us that what counts as real is always contingent.

Considering this conceptual framework, the remainder of the book looks through five example technologies, examining how each is presented as an object and discussed in a preferred form, but also what counter- or alternative visions or forms might exist. The unreal objects of study include genomics, biosensors, smart grids, in vitro meat and de-extinction. The first three, O'Riordan notes, display making objects through digital forms, while the latter two render digital data into 'fleshly entities' (8). Each chapter is structured following the same pattern of mapping the 'points of access, resistance or intervention' (132).





Image Credit: Fitness Tracker (Timo Newton-Syms CC BY SA 2.0)

The first case study, Genomics England / 100,000 Genomes Project, is perhaps O'Riordan's most personal one. During work on this project, she learnt that a rare genetic condition existed in her family, which had perhaps impacted her mother's fatal cancer. O'Riordan's research was not primarily motivated by her own experience. Her personal case, though, does exemplify the limited use of the research results of Genomics England by health professionals. Her analysis also describes how genomics 'appear [to have] a legibility problem' (31), when a great amount of funds goes into media production of YouTube animations that aim to explicate the difference between genomics and gnomes (the fairytale creatures). Genomics have been proliferating through exactly such marvellous misunderstandings. But, as she notes, there is little marvel in the complex assembly of 'political economies, material infrastructures, data processing, storage, computing power and elite groups of people' (44) behind genomics. She points out that keeping it marvellous through media production thus also means keeping attention away from the objectives of bio-economy and the big data industry behind it.

Biosensing presents a similar case of an economy-driven technology mediated for the personal advantages for the user to distract away from its broader benefits to the health industries. Biosensing takes the material, physical form of devices such as fitness trackers like Fitbit, and thus appears as 'real'. However, O'Riordan argues that framing Fitbit as unreal helps shift discussions from its use and consumption to issues of data generation and their contextualisation. Pointing out the long trajectory of fitness tracking through the construction of young, affluent, white female subjectivity over the last 300 years, O'Riordan presents a comparative analysis of Victorian journals and letter-writing with the ways Fitbit captures and presents data. For her, biosensors such as Fitbit constrain the user through their lack of context and the exclusion of any engagement with the environment, while simultaneously promising forms of empowerment. Here, drawing on feminist literature, she emphasises the imposition of a binary model of production and use/consumption, as well as that of zeroes and ones, that is built into technology and its mediation in society, leaving few opportunities for variations, nuances and hybrids.

Smart grids are the opposite of biosensors: they are electrical grid networks connected across borders to provide real-time regulation of mixed energy sources. Like the previous two technologies, their vision of resourceful production and consumption of energy is based upon connection to computer infrastructure to support data collection about behaviour. While biosensors exist as device-generating data, smart grids remain unreal objects: 'They are an emerging technology that currently inheres in images and text, in policy documents, government statements, [etc.]' (75). For O'Riordan, smart grids are a sociotechnical imaginary of planetary control broken down to the smallest units—the user with their smart meter. However, like the other examples, what is not mediated is the fact that although smart meters generate consumption and behaviour data, their contribution to resourcefulness remains limited as there isn't an actually existing smart grid to which they can be connected. Simultaneously, energy producers, such as the Orkney Islands which cannot be connected to a powerful infrastructure according to O'Riordan, demonstrate how this vision of clean, computerised control over chaotic conditions becomes 'a visualization rather than a vision' (85).

The fourth and last example includes two technoscientific projects—in vitro meat and de-extinction—that work counter to the previous ones. As O'Riordan notes, genomes, biosensors and smart grids generate informational representations. In vitro meat and de-extinction take such representations as their starting point to generate new realities. In vitro meat is about producing synthetic meat through cell culturing of animal tissues in laboratory conditions as an alternative to industrial meat production. De-extinction promises to return extinct species to life. As such, they are stories about making the unreal real: 'De-extinction and in vitro meat are simultaneously the most material and most unreal of the objects in this book' (129). In order to remove the conflicting potential of these laboratory projects, both rely on a solid media presence that supports their visions and funding. However, unlike the other examples, they still have to touch ground. In vitro meat, for instance, has been promoted in a 2013 live-streamed launch of a cultured beef burger, which took nearly two years to accomplish in a laboratory environment. To clone an extinct bird requires a living host species or hatching, which results in mixed DNA. Thus, as O'Riordan notes, the promises inscribed in in vitro meat and de-extinction overwrite the actual possibilities of cost-efficient and beneficial production.

In the conclusion, O'Riordan, drawing on Donna Haraway's idea of 'material-semiotic actors' and other feminist scholarship, returns to the initial argument about the need to mediate objects. In her critique of the current trends coming from object-orientated philosophy and associated discourses, she emphasises the role that media and representation play in making objects and thereby creating specific identity and body politics, which can work to exclude and mute significant others. Ignoring the unreal allows the reproduction of the status quo of technocratic elites. For her, talking of unreal objects enables us to move beyond material objects and to acknowledge the unseen.

The book offers an excellent analysis of how mediation works to construct and deconstruct visions of technoscience. Its conceptual framework of the unreal object enhances existing theories in social sciences and digital/media studies to help readers think about technological hype and the impact of these technologies before, rather than after, the fact. Moreover, it accomplishes much-needed intermediary work between these two disciplinary areas that have great overlap, but at times seem to be disengaged from each other.

Yana Boeva is a PhD candidate in Science & Technology Studies at York University, Toronto. Her thesis explores ideas of the de-professionalisation of design practice and concepts of expertise promoted by the maker culture and digital fabrication technologies. Read more by Yana Boeva.

Note: This review gives the views of the author, and not the position of the LSE Review of Books blog, or of the London School of Economics.