EXHIBITION
Live by data, die by data

Niccolò Tempini and Sabina Leonelli

The *Big Bang Data* exhibition at Somerset House in London pushes the idea that today's data explosion is catapulting us into a future in which everything is transformed, a world that is irreconcilable with the institutions and societies of the past. Beyond the considerable technical challenges of the contemporary data deluge, the different roles and situations in which data are produced and consumed are far from being well understood — and their consequences are even harder to predict. *Big Bang Data* attempts to showcase these uncertainties by recapitulating public discussions about big data through the work of artists, designers, journalists and activists.

The exhibition builds on three general arguments. First, all sorts of phenomena and processes can be represented and driven by data once we have the appropriate computing and networked digital machinery. Second, it's not easy to understand the character and consequences of these data-based processes. And third, data will shape the way we understand ourselves and make decisions, businesses run their operations, and governments make policy, whether or not the implications of this shift are properly evaluated. The exhibition anticipates both great opportunities for democratic involvement, as sought for example by Open Data initiatives, and serious surveillance risks, as the Snowden revelations suggested. It also draws attention to the dangers of the digital divide, with works intended to challenge the visitor's pre-conceptions on various topics — particularly the possibilities for personal data snooping and identity theft that digital environments engender.

There are many notable pieces focusing on the materiality of data and cloud infrastructures, the datafication of selves and societies, the aesthetics of data, and 'what data cannot tell'. One is Ryoji Ikeda's multi-media installation 'data.tron', a compelling reflection on the 'space of possibilities' that a computational system generates. A cursor on the screen moves and scrolls at high speed through columns and rows of digits, only to freeze at regular intervals and show a host of values and parameters, before moving on. Then, a 3D visualization glides around data points ordered on a grid of infinite planes. A representation of the spatio-temporal dimensions of data in computation, the work recalls the Turing machine in an immersive audio-visual environment.

Another suggestive work is Giorgia Lupi and Stefanie Posavec's 'Dear Data' which explores how individual biographies can be told with data, challenging the subjective–objective divide and highlighting the ingenuity and quirky arbitrariness of the whole undertaking. The two artists exchanged weekly correspondence through postcards, where hand-drawn visualizations were used to illustrate each week's events. Although postcards from each week focused on the same topic ("a week of books", "a week of my boyfriend", and so on), each artist designed the data collection and visually aggregated the data independently, producing different accounts and a humorous, playful contrast.

Because data touch all aspects of a wired society, it is perhaps impossible to cover every aspect. Still, the exhibition does not touch on the connection between data, the automation of work and robotics, nor on issues relating to the data deluge in climate science, astronomy, particle physics and genomics.

These domains have a lot to teach us about the political and organizational forms that have to be established in order to make sense of big data. The curation also seems to take for granted the inevitability of a data-driven society. The weighty assumption that data is always an advantage to the cost, efficiency and performance of an organization, as well as to the execution of all forms of decision-making, passes without question. Data-driven approaches are presented as potentially redefining all levels of society, from the self, to the city, to the country as a whole. These futuristic visions are attractive, but will the integration of data-driven approaches really be so straightforward?

Even if the rise of data is inevitable, our understanding of the way we live will still depend on the ways in which data-drivenness is defined and realized. For example, there is a difference between data-driven processes substituting for expert judgement, and informing it. And yet, the show leaves visitors with the impression that regardless of the risks data are generating (mass surveillance, for example), data will always be part of the solution (say data journalism). Live by data, die by data, in this brave new world. Only a small, final room of the exhibit makes the critical point that "data centrism encourages the idea that whatever the problem, the answer lies in data." The message continues that "numbers do not always reveal the whole truth and they can be manipulated." Indeed, numbers never reveal the whole truth, for at least two reasons: there might not be one singular truth to be told; and numbers do not speak for themselves, but rather need to be placed in a meaningful context to be interpreted.

Importantly, data typically originate from places in contemporary Western societies in which power is held and wielded. *Big Bang Data* fails to recognize this fact, resulting in a reflection on datafication that often constitutes an implicit endorsement of the claim to power of specific types of data. For example, the first two sections of the exhibition focus on the materiality of infrastructures and technologies. Data centres are presented as mysterious humming giants, masterworks of global architecture strategically distributed in a live planet, with no clear sense of the who is investing in and profiting from their development. Maps and vintage specimens of the cables that run communication networks are showcased to celebrate the technical underpinnings of the datafication of society, but do not offer a reflection on its limits and who remains excluded. As a result, in such and several other works, technologies are isolated from the social context in which they are used and managed. This neutral framing of data power, far removed from the political spaces in which data are produced and consumed, is supported by Silicon Valley, but remains highly questionable.

Big Bang Data is a diverse and entertaining exhibition, well worth visiting for a thought-provoking peek through some of the social implications of data-driven tools and analysis. Unfortunately, it is often pulled in opposite directions by data power arguments dear to the people and companies that will become tomorrow's 'data-makers', and topics of social concern such as surveillance and privacy, resulting in limited space for more diverse viewpoints and broader social concerns around the usage and management of data.

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