No one disputes that the collection of ‘Big Data’ holds the promise of interesting, even radically new, discoveries. But any critical social science of Big Data must take account of the broad transformations in communication and social organization that have generated the situation where Big Data is standardly available not just to corporations and states, but to researchers too. What if those transformations are potentially inimical, at some deeper level, to the very goals (for example, the sustaining of democratic politics) that may motivate much of our research in the first place? This short article seeks to raise some pertinent questions along these lines.

Political communications research that is serious about engaging with the challenge of Big Data must address the epochal shift in the political and social order that underlies the emergence of Big Data. There has been a progressive shift over the past 30 years in our infrastructures of communication which is changing fundamentally the nature of institutional
power. We are in the early stages of a large-scale attempt to reshape the very possibilities of social order so as to expand the scope of market functioning and commercial exploitation. I am referring not just to the fact of today’s internet, and the many layers through which we connect or are connected (social media, apps, the data harvest of the ‘internet of things’), but also to the shifts in value associated with these facts: emerging norms of connectivity, the emerging hope that human life can become increasingly governed through the data our connections generate, and the emerging assumption that the route to economic value and better lives lies through more connectedness, because that means more data. Changes in the starting-points for research are themselves only by products of these broader transformations, not drivers of them.

The shift towards permanent connectedness can be viewed from many directions. Some see it as a new phase of capitalism, what Shoshana Zuboff of Harvard Business School calls ‘surveillance capitalism’ (2015). For Zuboff, surveillance capitalism involves a distinctive emphasis on data extraction rather than the production of new goods or institutions; the intense concentration of power over such extraction in a small set of non-labour-intensive corporations, such as Google, and the data sectors they dominate; and most relevantly here, the negative implications of this transformation for values such as freedom. Connection itself is not the problem – indeed it may be an enhancement of what humans can do together – but it is what comes with connection, in particular its infrastructure of surveillance, that comprises the Faustian bargain, whose terms we urgently need to evaluate.

In this short article, I want to argue, in at least preliminary terms, that this infrastructure of surveillance is in tension at some level not just with freedom in a general sense, but with the notion of autonomy that provides the reference-point for most visions of democratic life.
The New Infrastructure of Connection

In the past three centuries, the infrastructure of communication required for economic and social expansion remained closely linked to the spaces that were governable by nation-states, and broadly compatible with the normative principles on which the various practical versions of democracy were based. In the past four decades globalized connection generated various processes that challenged the boundaries of nation-state governance, but again not necessarily the freedoms which democracy usually is considered to involve.

In the current era, however the balance may be different. The key is the emergence, over 60 years, of today’s internet. The internet’s history has often been told as an expansion of a ‘technology of freedom’ (de Sola Pool 1983), and certainly, it is a very major development which changes irrevocably the scale on which human beings are in touch with each other: on the face of it, this contributes to all manner of specific human needs. But it is too simple to see the internet as a technology of freedom, since its basis is not freedom, but connection: the potential connectedness of all packets of information, and all sites from which we access the internet and all actors in that space. In the past 10 years, our modes of access have multiplied, until today we discuss embedding automated connection into domestic objects (the ‘internet of things’). This deepening of connection (the requirement to be connected) brings into focus a two-way bargain: if every point in space-time is connectable to every other, then, by the same token, it is susceptible to monitoring from every other.

Understanding the social and political consequences of constant connection involves a number of steps. First, we must notice the profound shift in the organization of human life
that flows from the normalization of continuous access to the internet for social actors – of course, the norm is for many millions of people not realised, but even the assumption of it has enormous consequences. The idea of a many-to-many communications space was already inherent in the small networks set up between computers in the 1960s, but then it benefited only elite communicators. Diffusing networked transmission and reception across large percentages of the population, through the commercialization of the internet in the mid 1990s, changed the basic resources of everyday social action. From the mid 2000s new types of interaction space (social media) made possible ‘mass self-communication’ (Castells 2009), unimaginable a decade before. Wherever we are, we can act on, and be acted on from, multiple distances and directions, and in multiple modalities.

It follows from this, second, that social space-time has become open to saturation by corporate action, directed at the making of profit (by corporations) and the regulation, or modification, of action (by governments). As Joseph Turow writes, ‘the centrality of corporate power is a direct reality at the very heart of the digital age’ (Turow 2011: 17).

Third, all who aim to communicate beyond a small set of defined interlocutors face a deep challenge which drives them to use this new institutional potential for acting on ‘the social’. The challenge derives directly from increased connection. Actors of all kinds now have hugely increased capacities to send messages in all directions, which they often exercise. The volume of messages in circulation has therefore increased exponentially, creating: the need to filter out most messages; and the need for tools to search for particular contents (through search engines and apps). Each person comes, increasingly, to engage with the world through a system-based filtering, which, in turn, increases the difficulty for generalized communicators to target messages to particular audiences.
In response, advertisers, increasingly, try to reach audiences not through messages but through continuous tracking of individuals, wherever they are online. The paradigm of this shift on the largest scale is not advertisers but Google which provides an infrastructure for the new advertisers based not on tracking customers in the traditional sense (customers who enter into a discrete monetary transaction for the supply of goods or services), but on tracking every online social process without limit and maximizing the percentage of social life that occurs online.

It is as if the social itself were the new target of capitalism. This is not the first time that changes in business models, based in new technologies of mediated communication, have had far-reaching significance for social life. James Beniger thirty years ago in his book *The Control Revolution* gave a brilliant analysis of the emergence of mass markets through the coordinating power of electronic communications in 19th century North America and Europe. But what we are seeing today goes wider. We are witnessing the attempt through communication infrastructure to funnel all social action into a vast continuous space across which value can be generated seamlessly through the continuous generation of data. As Bruce Schneier put it bluntly, ‘the primary business model of the internet is built on mass surveillance’ (2013). So have we reflected sufficiently on the potential costs of this remodelling for social and political life, and particularly for democracy in its various forms?

*Getting along with surveillance*

When we watch a film about former East Germany such as *The Lives of Others*, we feel a compassion for the lead character, the lonely surveillance operative condemned to a life (of
watching the lives of others) that both he and we know is profoundly wrong. So how can a whole infrastructure of surveillance that was, in another context, so obviously wrong suddenly become right today?

One explanation is that this surveillance does not appear to us as an end in itself. We are told that the benefits of data interpretation (that flow from that prior infrastructure of data collection) are *transformative* for the human race. Health is just one of many areas where individual submission to continuous external surveillance, based on an infrastructure of connection, is regarded as a clear benefit. The ‘Quantified Self’ movement has promoted such an understanding, using some interesting moves to make natural the claim that self-surveillance (and the sharing of our personal data with the systems that incite and process that data) is somehow good for us.

Behind this lie the commercial pressures not just from the specialised data industries but from the businesses that provide the interfaces across which data is collected and where social norms of ‘sharing’ data are inculcated. Without needing any social movement to champion them, social media platforms, such as Facebook, used by approximately 20% of the world’s entire population, have grown large on business models that assume the generation and sale of data through the continuous tracking of what individuals ‘do’ on those platforms. The normalization of surveillance (and not just self-surveillance) often comes with economic force: the interest of health insurance companies in subject’s self-tracking of their bodies is obvious, but it is just one entry-point.

Meanwhile, we are encouraged in authoritative publications on Big Data published by influential actors such as the World Economic Forum, the OECD, McKinsey and PWC to
think that data is produced through the distinctive process of people giving consent to the collection of data about themselves and then later to its use for various purposes: after all, the Latin etymology of the term ‘data’ (‘that which has been given’) suggests that something has to, first, be given. But that is not how these powerful actors think about ‘data’. Instead they refer to it as something already there, a natural or social resource: like ‘oil’, ‘a new type of raw material that’s on a par with capital and labour’, or a ‘raw good’ (WEF 2011; United Nations 2012). To say metaphorically that data is ‘oil’ or ‘raw material’ is a sort of verbal magic that denies the social process through which data is produced. If data is just ‘out there’, ready to be taken, then problems about privacy and proper use still need attention, but merely as side-effects to be mitigated. But what if the continuous automated collection of data and the reorganising of social, economic and political life around that process is already a key building-block of democracy: the notion of individual autonomy?

We should not be surprised at such attempts to reimagine the social through data. There are historical precedents, at least in general terms. Karl Polanyi’s brilliant account of the social conflicts that surrounded early capitalism reminds us that major economic transformation always involves social engineering. In the late 18th and 19th centuries the issue was the shift from a subsistence economy based around family production within wider relations of domination to the creation of markets through which all ‘social relations are embedded in the economic system’ (2001: 60 [1944]). ‘The market’, in Polanyi’s view and contrary to Adam Smith, was not ‘natural’ but instead a social production. Or, as Polanyi put it more provocatively: markets require ‘the effect of highly artificial stimulants administered to the body social’ (2001: 60), stimulations that enable people to become accustomed to the governance of economic life across space through market signals. Exactly what Zuboff sees happening now: ‘the logic of accumulation produces its own social relations’ (2015: 77). The
social stimulation needed today is not of course to create networked markets – they have existed for 200 years or more – but to link every social activity into a datafied plane, a ‘managed continuity’, from which value can be generated, and so new types of market transaction made possible. Through this new form of social engineering, we become part of, and subject to, market principles whether or not we plan to be engaged in economic activity, even in the ordinary course of social interaction.

There are, in sum, today deep social and cultural pressures (themselves based in profound economic imperatives) that are encouraging large numbers of people across the planet to see as positive the embedding of continuous surveillance within everyday life, something that, for a long time, was not seen as positive, indeed as inimical to democracy itself. It is widely acknowledged that the Snowden revelations about the continuous intercepting by the NSA and GCHQ of the data streams of commercial internet companies such as Google raised fundamental questions about political liberty, as the political theorist Quentin Skinner noted: ‘not merely by the fact that someone is reading my emails but also by the fact that someone has the power to do so should they choose leaves us at the mercy of arbitrary power. . . . what is offensive to liberty is the very existence of such arbitrary power’ (Skinner 2013). But if it was the existence of such power that contradicts liberty, then surely we should have been offended by the power already vested in the commercial surveillance infrastructure on which powerful states were merely piggy-backing. It is as if we do not see as arbitrary in corporate hands power that automatically seems arbitrary in the hands of the state.

The Value of Autonomy
There is something wrong here, but it lies less at the level of conventional notions of liberty although they matter when, for example, informational institutions, such as Google, demand enhanced rights to commercial privacy, as it lies at the level of the broader value of individual autonomy that in many readings is intimately connected with the possibility of democracy. It was the strength, or example, of Hegel’s social theory to emphasise that (in the words of one of his leading interpreters) that freedom is ‘possible . . . only if one is also already in a certain (ultimately institutional, norm-governed) relations to others’ (Pippin 2008: 4). Sometimes the practical form of such relations may be at odds with the norms that govern those relations, so that we start to feel ourselves ‘part of a practice that has either gone dead . . . or requires of the agent further commitments incompatible with others necessary within some form of life’ (2008: 5). If so, those norms lose their legitimacy, and (to quote another leading Hegel interpreter, Terry Pinkard) ‘the lives in a form of life become uninhabitable’ (2012: 118). Could this be the contradictory situation into which we are moving?

At the heart of Hegel’s idea of autonomy is the idea of some space of autonomy where an individual can be in a reflective relation with herself. For Hegel, building on Kant, a free life needs to be a self-sufficient life in which (as Pippin puts it) ‘nothing from outside, nothing not-me, determines my actions’ (2008: 136). It is not that autonomy requires a life entirely free from constraints: on the contrary, an autonomous life involves, in large part, the reflexive adaptation to constraints. But at the core of autonomy instead is having in some sense an inner life, enjoying one’s own ‘right of subjectivity’ (Pippin 2008: 167): for this is the basis on which selves recognise others as having the same status as moral agents that they assume themselves to have. As Pippin notes, this need for recognition is not just something desirable: it underpins the very possibility of freedom. As Hegel himself put it, ‘freedom is this: to be
with oneself in the other’ (quoted Pippin 2008: 186). It is autonomy in just this sense, I suggest, that becomes harder to sustain under surveillance capitalism when business models depend on continuous automated surveillance to generate data from which profit can continuously be extracted.

This might seem a rather abstract way of posing the problem of living under continuous corporate surveillance. But it has practical consequences. Hegel’s notion of autonomy has direct links forward (Wood 1990: 99), for example, to ‘the right to free development of [a person’s] personality’ in Article 2 of the German Basic Law which insists on the need of individuals to have a space in which they mature and grow as civic subjects, and sees this as the basis for any notion of democratic participation (Hornung and Schnabel 2009: 85). The ‘right to personality’ has been incorporated also in the Marco Civil, the radical alterative governance framework for the internet proposed by the government of Brazil in response to the Snowden revelations. And it is the need to protect the right to personality from constant interference, rather than the conflict need to ‘free up’ the market opportunities for new data-based business models that, in part, underlies proposed new data protection regulations in Europe.

Specific Implications for Democracy

What, you might ask, has this got to do with democracy as a form of practice?

There are of course many practical forms and normative models of democracy. If the threat from continuous automated surveillance were a threat to functioning of just one model of democracy (say liberal or republican models), then the threat could be avoided, just by
adopting a different model. Robert dahl’s theory of polyarchy which attempts to model the structures underlying all democracy’s practical forms may help here, although some of its formulations are focused on characterizing the resource structures that enable the discovery of political knowledge by individuals already assumed to be autonomous. But it is at last significant that Dahl’s whole model is based on what (1989: chapter 7) he calls ‘the presumption of personal autonomy’. We know, for sure, that some threats to personal autonomy (e.g., those that create terror and silence voice directly) are compatible with democratic expression. But today’s normalization of automated surveillance by corporate and state institutions is not a threat of that sort: its threat to democracy is more subtle.

There is much that could be said about the increasingly ‘authoritarian’ nature of individual’s relations to information and computing systems and its potential long-term corrosive effect on the conditions of public life, as legal theorist Julie Cohen (2012) has done so much to highlight. Rather than focus on the public aspects of this authoritarianism, I want here to concentrate on the core of Cohen’s concerns which, as I read it, lies in the threat to the very space of the individual, as an autonomous individual. It is here that John Dewey’s theory of democracy as ‘a mode of conjoint communicated experience’ (Dewey 1993: 110) helps us by emphasising the grounding of democracy as a social form in communications that enable the ‘pooling of the net results of the experiences of multitudes of people’ (Dewey 1993: 208). The point of such a social form, except in elite models of democracy, lies in what Dewey calls ‘some faith in the capacity of human beings for intelligent judgement and action’ (Dewey 1993: 242). But why value such experience and its exchange unless it really is the distinct experience of autonomous individuals whose development together as individuals provides the point of democracy as a mechanism of sharing? A similar point arises with regard to Amartya Sen’s notion not of democracy, but even more fundamentally, human
development as a mode of social organization oriented to actualizing human being’s capacity to shape the environments in which they live. It only makes sense to organize things towards optimizing individuals’ ‘freedom to do the things one has reason to value’ (Sen 1999: 18) because human beings are the type of beings who evolve reasons based on values formed in the course of their and others’ experience as autonomous individuals.

But the spaces of individual autonomy and of social interaction today increasingly have installed within them data-driven processes which are continuously tracking, categorizing, and re-presenting those spaces and what goes on within them back to social actors in forms which are very different from the terms in which humans themselves deliberate and act. An aggregating, calculative logic is taking social reality apart and reconstituting it in ways that rework the space of individual autonomy from an external perspective, driven by forms of maximalization (for example of corporate data value) which bear little relation to the sorts of goal that motivate individual experience or action. Today’s ‘computed sociality’ (Alaimo and Kallinikos 2017) no longer therefore provides the secure starting-point of arguments for the value of democracy that previous forms of social experience once did. We are already seeing one version of this unsettling in recent debates about ‘fake news’ in the US 2016 Presidential election, when the ‘reasonable’ operation of algorithmic logics generated outcomes – in the form of false claims circulating with the weight of accepted fact – that undermine one key goal of interaction in a democracy, the obtaining of factual information that is useful for deliberation.

The result of this transformation will not be to destabilize democratic systems as such: we know indeed that political parties of certain sorts can function well in an ecology of lies or unstable ‘truths’, even if parties that seek genuinely to transform social conditions will have
more difficulty, since such transformations are impossible without the orientating reference-point of factual information. Nor will the result be the impossibility of political participation (or at least the sensation of it), since the illusion of participation is easily compatible with the circulation of algorithmically inflected representations, indeed that illusion may even be stimulated by certain algorithmic feedback loops. What is destabilized more fundamentally by the normalization of continuous automated corporate surveillance of individuals is the point of democracy, the basic normative reference-point which orientates the practice of democracy itself: that is, the attempt to organize social and institutional life on the basis that the voices of individuals, and their accounts of the lives they have lived as autonomous individuals, actually matter, and matter because voice, and the recognition of voice, is a fundamental process of which humans are capable (Couldry 2010 chapter 5). Once the normative moorings of democracy as an idea have become loosened by the normalization of external surveillance as the condition of individual life, then we have considerably more reason to fear those who say that democracy was never worth striving for in the beginning.

References


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