

**Draft presentation for the international workshop ‘Big Data and the Rise of the Digital in International Governance’, sponsored by the *Millennium* journal and CSD, University of Westminster, London School of Economics, 19 May 2017**

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## **Big Data and the Ontopolitics of the Anthropocene: Critique and the Rise of the Digital in International Governance**

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Our workshop is concerned with thinking through two sets of questions with regard to Big Data and international governance: firstly, ‘What is the transformative promise of Big Data and what are the enabling or driving forces behind this?’; and, secondly, ‘What is at stake in debating this shift and are contemporary critiques up to the task?’ I’d like to address both questions together in terms of two ways of setting up the discussion, perhaps heuristically they could be posed as two levels of debate, firstly, that most familiar to the discipline of IR - the ontic level - and, secondly, perhaps that less familiar - the ontological level. I wish to emphasise the importance of this distinction, which I will briefly lay out in the form of two dialogues that pit the claimants, who advocate Big Data, against the respondents, who dismiss these claims wielding the tools of critical sociology. The point of the contraposition of the two dialogues is to suggest that IR could possibly be at risk of misconstruing the transformative promise of Big Data and thus too blindly dismissive of the political and philosophical implications of this approach.

### **Dialogue 1**

*Claimants:* Big Data will revolutionise policy-making in international governance by making it based on science rather than bias and prejudice (this lack of science has led to the consistent history of policy-failure in IR). We will achieve this through minimising the human (political) content of data analysis through the use of new

digital technology, which starts with the data rather than with narrow interest-based beliefs and aspirations.

*Respondents:* Sorry, science-based analysts, but we've all read Foucault: power and knowledge are intimately entangled and inseparable – only certain things will be abstracted, measured and related in constructing your world to be governed and the reality of life will always be in excess of this and be more complex.

*Claimants:* But we are not seeking to draw narrow and reductionist causal links; instead, using the mass of data points and the speed of high tech algorithms, we will be able to see the emergence of patterns and relations which would otherwise be missed. These patterns can then be projected into the future enabling us to predict potential outcomes, which would otherwise be missed.

*Respondents:* There is no way out of the conundrum. Hello. One word - apophenia – it's the term for the human tendency to perceive meaningful patterns within random data. Patterns can be seen everywhere if you look hard enough, therefore many of these correlations would be entirely arbitrary. Human judgement shapes which issues are considered and which patterns should be selected as more useful. There is inevitably going to be an inbuilt bias from the funders and researchers and even if there was not, pattern analysis is in danger of repeating biases and hierarchies and exclusions of the past and naturalising or reifying them as the basis for 'scientific' policy-making. What is worse is the fact that the algorithms developed and deployed are obscure to the public and sometimes even to policy-makers or the researchers themselves, making these biases undetectable and removed from public scrutiny.

In Dialogue 1, the claims of the Big Data advocates are always successfully punctured by the knowledge scepticism of the critical sociologists, normally mobilising a Foucauldian framework of power/knowledge. Big Data is thus presented as the high point of modernist hubris, condemned to repeat the failures of the past. This discourse takes place at the ontic or epistemological level – of the veracity of knowledge claims understood as able to provide predictive capacities for

international governance – the terrain is that of the ‘new’ science of computation vs the sociology of critique.

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Personally, I don’t think that Big Data, or the claims made on its behalf, would be very interesting – or much of a critical challenge - if it was merely a discussion about the predictive capabilities of the application of new data technologies based on the ability to process a huge mass of data, detecting patterns with the power of algorithmic calculation.

## **Dialogue 2**

*Claimants:* Big Data is a non-modern ontology. It is a displacement of the digital – the reductionist, conceptually homogenising search for fixed relations and linear causality. Quite the opposite to your IR structuring of Dialogue 1, the claim made here is that Big Data enables us to use high tech advances to see in analogue – to grasp problems in their unique concreteness in space and time. It is not reductionist, far from it; in fact, Big Data seeks to break all entities down into the never-ending sets of their relations. Nothing has innate or determinate characteristics and nothing can ever be reduced to anything else.

*Respondents:* How can that be? All knowledge involves abstraction and a set of reductions and cuts (we’ve all read our Karen Barad). Nothing can be seen or known without occluding or excluding others.

*Claimants:* No. Big Data can do new things and take us beyond the Baradian claim that the instruments phenomenologically shape/construct ‘for us’ the object seen. Big Data can “drill down” to the individual entity and open up the black boxes of modernity and deconstruct its reductionist subjects (we data scientists have read our Deleuze – his view of dividuality was nowhere near what we can achieve). Big Data also has the power to see and respond in “real time” as events unfold and entities

emerge. This is exactly the opposite of the binary and reductionist world of the moderns – we thought you would be happy?

*Respondents:* We don't understand. What do you mean? Modern data/knowledge always plots data points in space and time and draws a line – from which it extrapolates and predicts.

*Claimants:* That's exactly the point. You critical sociologists fail to grasp that the contraposition of causality vs correlation at the ontic level doesn't begin to capture the field through which Big Data works: the virtual. Space and time are no longer the vectors into which all data must be plotted – as if we only lived in one 'actual' world. The work of Big Data is in the virtual sphere – in the superpositions of correlation: we are not concerned with the line of causation but the plane of immanence – of everything all at the same time. You don't believe us? Let us give some simple examples:

We “drill down” rather than generalise up. Take Amazon recommends: old data would put individuals into categories of consumer – i.e. reducing them to some dominant descriptor. We use Big Data to do the opposite – we build up our picture of the individual through their relations (their purchases) – Latour writes something very similar drawing on Gabriel Tarde. The individual becomes richer not poorer – less of an abstraction, in fact the opposite, as an individual (a monad) through which the world appears.

We see in “real time”, precisely through the work of correlation, machine learning and the application of high tech algorithms, in the sphere of the virtual. Take digital humanitarian innovations in terms of environment, conflict and health crises: we can use drone cameras and social media to see events unfolding through the ability to ‘read’ the pixels or words on the screen as they appear. We can increasingly contextualise words in social media – SMS texts, Twitter, Facebook etc - to highlight problems from conflict to flooding to the spread of disease and we can refine algorithmic machine learning to correlate pixels with numbers of refugees or damaged houses. These correlations are virtual – in that they look at how things relate in context rather than separating lines of causation.

*Respondents:* Ah! Now we understand the promise of Big Data – it blurs the entities and relations of modernist approaches, with their lines and their cuts. But all this work in the so-called ‘virtual’, this is shaped and guided by humans for the ends of power, no?

*Claimants:* You are very right that all techniques and technologies can be misused by power or can be wrongly applied or short-cuts may be taken. But the promise of Big Data is that all should be included and none should be reduced to another. Nothing could be more public and democratic and open. Everyone can think in terms of the virtual. In fact, you need no computers or machines at all, although algorithmic thought is necessary (framing relations as correlational: “If this, then that”). Indigenous knowledge, in fact, many types of non-modern thinking operate along the lines of the ontology of Big Data.

This author remembers a saying from living in the north of the UK, applicable for when it was safe to take off heavy farm clothing: ‘Ne'er cast a clout till May be out’ – this didn't mean don't cast off clothing until the month of May is over – but rather was making an analogue contextual relational observation that was more relevant, of not doing so until the flowering of the hawthorne (May) tree. Looking at/listening to the land, the river, to objects or even to human/non-human assemblages provides a similar function. The injunction of Big Data is not one of abstraction, reduction, control, regulation and prediction but rather one of attention to concrete forces and relations.<sup>1</sup>

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In Dialogue 2, which is more rare than Dialogue 1 in the discipline of IR (of course, in real life, all dialogue is fairly unusual in academia, these ‘dialogues’ are heuristic

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<sup>1</sup> It is merely a datified version of the call of the Anthropocene to relations of care; see, for example, Charlotte McGuinn Freeman, ‘Clothesline at the End of the World’, *Resilience.org*, 10 May 2017. <http://www.resilience.org/stories/2017-05-10/clothesline-at-the-end-of-the-world/>

fictions), the claimants have logic on their side, while it is the critical respondents who appear to be naïve as to the epistemological and ontological consequences of debating the rise of the digital and Big Data at the ontological level.

## **Conclusion**

It is no surprise that Big Data works more radically – i.e. at the ontological level – while the critical sociologists are still reading it and responding to it as another failure of modernist hubris on the ontic level. The same debates are happening (or rather not happening) all across IR – another example would be the Anthropocene. The critical sociologists of IR see the Anthropocene as the hubris of ‘spaceship earth’ and the ‘good Anthropocene’ of the science of planetary boundaries, while the scientists and theorists of the Anthropocene in other disciplines are suggesting that the Anthropocene calls forth a non-modern ontology of entanglement. Latourians and a rag-bag of OOO and Speculative Realists thus are left to take up the philosophical implications of this (all of them responding in a positive and welcoming way, with no critical theorists in sight). At stake in this debate then is that there is very little critique in IR engaged with dialogues that take place at an ontological rather than the ontic level. My suggestion is that critical theorists leave their comfort zone and join the struggle before it is too late.