In American gods we trust

If all-seeing ‘miracle’ tech is making the decisions we must demystify the tricks, says Danny Dorling

Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy
By Cathy O’Neil
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M any years ago I attended an event at a packed lecture theatre at the annual meeting of the American Association of Geographers. A huge audience had gathered to hear a little-known academic speak on the subject “What your credit card record tells them about you”. But the speaker never appeared. Was it a successful stunt to illustrate just how paranoid we all are about what they know about us? Perhaps the speaker had been trying to show the audience just how little social scientists knew about “big data” long before the phrase had ever been thought of – or perhaps he had just slept in.

Cathy O’Neil, an academic and former hedge-fund quant, or quantitative analysis expert, has a story to tell, and it is a story about you. She draws from the same deep well of fear that helped to draw crowds at that AAG conference: the suspicion that we are all being observed by hidden forces, algorithms we cannot understand, designed by faceless quants who work to maximise the bottom line for their masters. In the past, there was just one all-seeing god we had to fear. Now we live in a world with many such all-seeing gods. Google’s quants could map out who had most likely read this book and found it most interesting, or how unbelievably powerful and each potentially malign. As O’Neil explains of one of the biggest and most ubiquitous of those deities, “Facebook is more like the Wizard of Oz: we do not see the human beings involved.” We can’t see the quants who decide which of our friends’ posts we view first, and it turns out that the quants play living in swing states can be key to the outcome. According to O’Neil, “the money from the financial 1 percent underwrites the microtargeting to secure the votes of the political 1 percent”. But can such voters be targeted that effectively, and where is this book’s reference to the smoking gun – the political quant who came in from the cold and explained how it was all done? I have a great deal of sympathy for O’Neil’s suspicions. In the late 1980s I was given access, as a doctoral student, to magnetic tapes containing the electoral roll of the UK, ordered by the geographical regions the Conserv- ative Party then used. I was never told why the data lab I worked in had been given access to that data. We also later had data from the firm that would become Experian, and the credit card company Capital One, both of which are mentioned in Weapons of Math Destruction. Apparently, Capital One now carry out “rapid-fire calculations as soon as someone shows up on their websites. They can often access data on web browsing and purchasing patterns.” But how do they do this?

A quarter of a century ago I concluded that the nascent big data industry was full of big claims and big errors, and I ignored all commercial sources other than mortgage records when writing a PhD thesis on how the social structure of a country could be visualised. Things will, of course, have moved on greatly since then. But when research is done in secret, without peer review or conference presentations, it is easy to make great claims for your rapid-fire calculations, your “powerful algorithms”, and your Big Brother-esque surveillance abilities.

The reality is often quite different. It is the research student or young quant trying to keep their bosses happy and promising that they really have devised a clever algorithm that can give the firm the edge. It is the sleek saleswoman in an expensive suit with a flash job title and a fancy set of PowerPoint slides, explaining to the board how they can zoom in, target-market, segment and augment profit. And it is the board member nodding sagely and signing the cheque to the company to do the work that neither he, nor she, understands, nor feels the need to understand – just as long as everyone’s getting paid. Make a profit or win an elec- tion every so often, and the target marketers can take the credit. Make a loss, and it is down to “external factors”. No one from Facebook or Google works. Almost anyone could have started any of these companies, but they needed to be at the right place at the right time. They are huge now because they were first and are still the most voracious.

As O’Neil says, she just had to type the two words “data scien- tist” into her CV and she was able to enter this world, and what she reveals is fascinating. But what her book doesn’t do is provide references to information that is not already in the public domain, and neither does it contain a single equation or algorithm. If we are really to understand these processes, at some point we will have to draw back the curtain to explain how the machine work and don’t work, and how the giant data corporations are not new gods, but fallible recent human creations that we have yet to collectively control. Only then will they do less evil.

Karen Shook


Caption blurs for picture here please

There is nothing very clever or complex about how Facebook or Google work. Almost anyone could have started any of these firms, but they needed to be at the right place at the right time.