



Reinventing the Leibniz Wheel

by Adam P.

So you decide to ask Facebook for your data record and once you have downloaded it you then decide to delete your account. You now have a couple hundred pages of data as a souvenir of your time spent on the network. What understanding can you get about life from this data recuperated from Facebook? And who among us is capable of translating this data, electronic translations from our lives and societies, into any sort of meaning?

A data analyst I guess. There is a specialist for everything, but is there someone out there who can bring the different sciences and disciplines together into the necessary unified force and give meaning to our collective digital lives?

In the novel *Satin Island* by Tom McCarthy, *U*, the novel's narrator (yes he is talking to you) has a kind of daydream in which he imagines the second coming of a messianic, contemporary polymath of the kind last seen in Gottlieb Leibniz. *U* is a corporate anthropologist for something as big and intangible sounding as *The Company*, writing a 'Grand Report' for the equally suggestive commission, the '*Koob-Sassen Project*'. This comprehensive study would look at nothing less than humanity itself, circa 2015, its "structures of kinship; systems of exchange ... symbolic operations".

Family, commerce, culture.

If we dare to imagine for a second what a 21st century anthropologist would actually report in order to carry out such a study, beyond the realm of an ostensible work of fiction such as McCarthy's, what would we be imagining exactly? How would such a report actually be compiled and what would it look like?

It would be a data-matrix. It would be the Internet. It would be a report of each and every one of our daily digital fingerprints, spread out in time and space, multiplied vertically, horizontally.

And it is no mistake that Leibniz should come up when we think about such a colossal report because in one sense we seem so desperately in need of our own contemporary Leibniz, a Leibniz of our times as it were. But, who was this Leibniz guy exactly and why are we so desperately in need of someone like him?

Gottfried Wilhelm Leibniz was born on the first day of July in 1646 in Saxony, Germany and, as his summer birthday would have encouraged, he grew up to be an optimist. I am a great admirer of Leibniz in case that wasn't obvious. Why, I hear you ask? Because he was

one of *the last humans* to straddle the worlds of science and philosophy in his time, who enjoyed 'a full command of the intellectual history of their day.'¹

A true polymath, Leibniz excelled and furthered not just mathematical tools and enquiry but also the domains of philosophy and anthropology. He invented differential and integral calculus without knowing anything of the work of Isaac Newton. He invented something called the 'Leibniz wheel' which is used in the arithmometer a century and a half later in the first mass-produced mechanical calculator. What's more, he worked on the binary number system, which as we all know is the foundation of virtually all digital computers.

Alongside all this theoretical and applied scientific work, Leibniz was also a far reaching philosopher, a leading proponent of rationalism and systemic structures of thought. Just a quick glance at his Wikipedia entry shows the long list of his reach:

Leibniz made major contributions to physics and technology, and anticipated notions that surfaced much later in philosophy, probability theory, biology, medicine, geology, psychology, linguistics, and computer science. He wrote works on philosophy, politics, law, ethics, theology, history, and philology. Leibniz also contributed to the field of library science.²

Indeed much analytic and contemporary philosophy today employs Leibniz's notions revolving around identity, individuation and possible worlds. The latter is interesting because the concept of possible worlds is employed in the realm of modal logic — in which it can be argued that for every distinct way the world could have been, there is another possible world (with the world we live in being the actual world). Like if we consider the statement 'Earth is your home' and then the statement 'Earth is usually your home'. The 'usually' here is the modal, qualifying the statement.

For Leibniz, the use of positing that possible worlds existed as ideas in the mind of God allowed him to declare that our actual world must inevitably be the best of all possible worlds — for why else would God allow it to be otherwise? This gave rise to his theodicy and solution to the problem of evil but that is a whole other story that we don't need to go in to here.

(Voltaire, a great enemy of Leibniz's legacy, would of course go on to make a lot of fun of this optimism in *Candide* with his satirical portrayal of Leibniz as Dr Pangloss³. It's an idea that was an echo carried over from Descartes, a big influence on Leibniz, and we only need to think of Descartes' infamous *Evil Demon* from his *Second Meditation*: *this world* is but a large simulation created by an Evil Demon to trick us — the worst of all possible worlds perhaps — a proposition picked up and made celluloid by the Wachowski brothers in *The Matrix*.)

This aspect of Leibniz's logic leads to the anthropologist — if there is to be an all-knowing God who is also our creator, as looked at in a previous Theory post, then surely *they* know what humans do? And what is more they can answer the question — *why* do humans do what they do? Why do *you* kill each other and commit acts of evil? But can we really expect such a level of impartial knowledge-creation today when, as McCarthy puts it:

[A]nthropology graduates now work for corporations too. Not on but for: deploying ethnographic knowledge to help companies achieve deeper penetration of their markets, to advise cities how to brand and rebrand themselves, and governments how better to narrate their policy agendas.⁴

If information is our new-age God, then the corporations who loom over us are its potential Cartesian evil demons. Amazon, Netflix, Google, Facebook. In this regard are we really supposed to be reassured by Google's infamous motto '*don't be evil*'?⁵

When we think of anthropology, we think of the study of any one group of people's rites and rituals, a science of observation, inference and the roundabout commentary on other humans in a manner often self-questioning and self-effacing, but at least willing, through quantitative and qualitative data study of their subjects, to make lucid observations. In this sense anthropology, as a social science, has in fact always been about data analysis. Claude Levi Strauss, the towering French anthropologist of the last century and very clearly a source of inspiration for McCarthy, worked in weaving information together in a search for connectedness not unlike we get from the Wide Web. But that was in the days when people still used the words 'primitive' and 'tribal' as if human nature had external antecedents, the Other, and that what was needed was an educated French man to tell the meaningful narrative that would somehow tie it all together.

What we get in Levi Strauss' magnum opus *Tristes Tropiques* is a kind of search result that 'zaps from culture to culture, continent to continent, as it remaps the entire globe along lines of association: between the layout, concentric or concyclic, of a village's huts, the transgenerational rhythms of exogamy and endogamy of the tribe to whom these huts belong, and the symmetry or asymmetry of a caste system on the far side of the world.'⁶

But today, in the age of Big Data, the study of contemporary human life and its possible patterns and connections is more than likely being carried out in Menlo Park or Mountain View, California. What Big Data has to say about us and the picture of relations (socio-spatial-economic) that a data-anthropologist can now weave is immense. Sure, we're all used to the idea that these woven tapestries of our digital selves are used to target us with personalised ads, but we are now seeing an increasing amount of hard evidence that it has been used to actively pollute the worlds of culture and politics. What we are left with is a society directly influenceable by a control of these data tapestries.

To go back to McCarthy: 'Our own era, perhaps more than any other, seems to call out for a single intellect, a universal joint to bring them all together once again [...] in other words, a Leibniz. Yet there will be no Leibniz 2.0.'

But, as humanity lurches forward, in danger of tripping up on its shoelaces looking for its reflection in the digital mirror, let's say that a novelist, one stuck in the mindset of the late 20th century is wrong: let's say that there may well be a single intellect on the horizon, it's just a matter of being able to recognise it, and that this 21st century Leibniz may well be there to catch you as you trip and fall ever so slowly over.

Notes

1. Tom McCarthy, *Satin Island*, page 49. Jonathan Cape, London.
2. https://en.wikipedia.org/wiki/Gottfried_Wilhelm_Leibniz#Monads, last accessed March 26, 2018
3. Pangloss in the book becomes the overly optimist buffoon who in the face of calamity and disasters always proclaims 'all is for the best'. Voltaire was shaken by such natural disasters as the Lisbon earthquake of 1755 and the Seven Years War... and syphilis. So he mocks the Leibniz position by having Pangloss say that syphilis 'was a thing unavoidable, a necessary ingredient in the best of worlds; for if Columbus had not caught in an island in America this disease, which contaminates the source of generation, and frequently impedes propagation itself, and is evidently opposed to the great end of nature, we should have had neither chocolate nor cochineal.' How to make up to a lover after you give them an STD? Buy them a box of chocolates and write this quote on an accompanying card? On second thoughts, maybe not.
4. 'The death of writing — if James Joyce were alive today he'd be working for Google,' Tom McCarthy, <https://www.theguardian.com/books/2015/mar/07/tom-mccarthy-death-writing-james-joyce-working-google>, last accessed April 3, 2018.
5. It should be pointed out that the new parent company of Google, Alphabet, quietly dropped the logo from its own code of conduct when it was established in 2016. In its place it is stated that "Employees of Alphabet and its subsidiaries and controlled affiliates should do the right thing — follow the law, act honorably, and treat each other with respect." <https://abc.xyz/investor/other/code-of-conduct.html>, last accessed April 3, 2018.
6. 'The death of writing — if James Joyce were alive today he'd be working for Google,' Tom McCarthy, <https://www.theguardian.com/books/2015/mar/07/tom-mccarthy-death-writing-james-joyce-working-google>, last accessed April 3, 2018.