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Andrea Saltelli, Open Evidence Research, Universitat Oberta de Catalunya (UOC), Barcelona

@andreasaltelli

A new battle ground

Producing fake news, or accusing others of doing it, are strategies often run in tandem, for ideological, political or business interest, as best exemplified by Donald Trump.

Given the power offered by the new media, artificial intelligence and the prodigies of control allowed by the matching of those new tools with cognitive psychology (Zuboff, 2019), **fake news have become the new battleground in a variety of political or commercial conflicts.**

As noted by Zuboff, the dream of making behavioural technologies comparable in power and precision to physical and biological technology appear to have come true, with platforms such as Facebook and Google permitting behavioural engineering, and real time experiments over huge samples of population, at an unprecedented scale. The dream was first formulated B. F. Skinner (the one of Beyond Freedom and Dignity, cultural engineering...), cited in (Zuboff, 2019), who predicted that human behaviour would reach the same precision of weather prediction. It is in context that we need to look at the phenomenon of fake news.

Asymmetries

In fake news battles considerable power/knowledge asymmetries manifest themselves.

The political left is more vulnerable to a war fought on fake news, given the left's ambition of moral superiority (Sanchez-Cuenca, 2018) based on getting the facts rights (Lakoff, 2008) - the political right is believed not to have the same qualms and to aim for power directly.

Those with the biggest pockets can mobilize more resources (companies, trolls, scientists, private interest associations) for the fight. Since engineering fake news also include attributing falsity to one's opponent, we now witness the relatively new phenomenon of the 'Guardians of Reasons' (Foucart, Horel and Laurens, 2020), where special interests deploy their resources in defence of 'sound science' (Saltelli, 2018). This is an old lobbyists' strategy (from Philip Morris), considerably refined in recent times (Saltelli, Dankel, *et al.*, 2020). In these battles, all those who oppose relevant corporate agendas are labelled as 'enemies of science', 'fearmongers', or 'cultural pessimists' (Pinker, 2018).

A constellation of new actors

A constellation of agents become thus mobilized in these battles – many of which act in good faith, while defending private interest lines on issues ranging from nuclear to GMO to glyphosate. The analysis of the situation done by sociologies and investigative journalists (Foucart, Horel and Laurens, 2020) for France (and UK) shows how private interest make their voice heard through vehicle such as Association française pour l'information scientifique, the Union Rationaliste, science-cafés and bloggers / trolls in

France, under the coordination of specialised PR firms. **Bloggers and trolls may act as self-appointed 'fact checkers' against purported fake news from 'risk mongers'**. In the UK the apparently independent **Science Media Centre** has been flagged for acting often under funding and suggestion from private sources, hegemonizing the interface science-news / society, providing "PR masquerading as reporting", for the purpose of 'churning', news stories that are little more than rewritten press releases (St Louis, 2013). It would thus appear that there exist well-oiled quasi- or pseudo-institutional vehicle for fake news. Fake news already impose "private and social costs by making it more difficult ... to infer the true state of the world" - Allcott and Gentzkow quoted in (Zuboff, 2019). With fake news moving to new frontiers, the cost of 'discerning' becomes higher.

What zeitgeist?

The boundaries between political and corporate interests often become blurred, when the fight becomes one about the zeitgeist, the spirit of the times, the dominating ideology (Mirowski, 2019). For scholars such as Mirowski and Lakoff, the political right has colonized the epistemological landscape since the inception of the neoliberal project, and has reinforced its position therein in the last 40 years. The callousness of present fake news wars cannot be understood outside this political context.

Innovation economist **Carlotta Perez** (Perez, 2002) interprets the present as the first wave of the fifth technological revolution. In her theory, fist waves are systematically exploited by the elites, and generalized societal benefit only materialize in a second wave. Even in this relatively optimistic reading – contrasting the dystopian visions of surveillance capitalism (Zuboff, 2019), the present reads as a moment of crisis rendering societies and democracies vulnerable to populism and totalitarianism.

When knowledge becomes the currency used by lobbies to gain political traction (Laurens, 2017)(Drutman, 2015), then fake news become even more functional and fungible, a mean beside and end. What is fake or biased is often not just the news or the fact, but the methodology (e.g. in regulatory settings), the principles (see e.g. the saga of the innovation principle), or the definition of what the problem is (Saltelli, Dankel, *et al.*, 2020).

Fake news and STS scholarship

Since science is at the hearth of these 'fake news' battles in many respects, one would imagine that scholars of science and technology studies have more clear ideas about how to fight these wars.

In fact it would appear that the best spirits of STS tradition become themselves victims in the war. The aspirations to transparency, inclusiveness and coproduction of much of STS tradition are exploited by the same organized actors – **no one accepts an invitation to co-produce more eagerly than lobbyists** (Mirowski, 2020). Even ethical committees can be colonized by lobbyists, thus becoming an occasion for ethics washing (Metzinger, 2019). It is indeed hard to engage fights endowed with technologies of humility (Jasanoff, 2007) when the opponents pride themselves for their hubris.

Andy Stirling and co-workers have noted that coproduction can be interpreted as a program for action, inviting more people around the table, or as an interpretative lens – to acknowledge that any kind of knowledge reflects the interests and stakes of those who contributed to it (Stirling, Ely and Marshall, 2018). The two interpretation are not interchangeable, and it is clearly the latter which could possibly inform an analytic approach to the phenomenon of fake news.

Fake news and numbers

Numbers and quantification are a core issue in the battle of fake news (remember the size of the crowd attending Trump's inauguration). Bogus or serviceable quantification are easily produced in metrics, rankings, statistics, and modelling (O'Neil, 2016)(Reinert, 2012)(Muller, 2018)(Saltelli, Bammer, *et al.*, 2020)(Saltelli and Di Fiore, 2020). So-called reductionist styles of quantification are believed to 'close down on uncertainty', servicing a technocratic orthodoxy which is functional the zeitgeist discussed above (Stirling, 2019)(van Zvanenberg, 2020). These stiles of quantification can be used to 'defend reason' by the so called fact checkers, against e.g. those who question technology on normative or political grounds, as shown in Europe by the long fight about GMO.

Armed with numbers, and with a reductionist view of the world and its problems, the defender of reason / fact checker, accuses the opponents of ignorance, obscurantism and fake news. A most candid example of this style of reasoning and polemicizing is offered by cognitive psychologist Steven Pinker (Pinker, 2018), whose "Enlightenment Now" is the book most loved by Bill Gates. Pinker labels as 'cultural pessimist' the best part of the philosophical, sociological and ecological thought of the last century. Both cognitive psychology and evolutionary psychology (heir to the now discredited social biology / social Darwinism) are mobilized to reduce humans to organisms and hence amenable to crisp 'scientific' determination and numerification.

The risks of neutrality

Hence, however unpalatable this might sound, the existing, **resilient technocratic orthodoxy** which insists on the neutrality of risk based assessments (Saltelli, Benini, *et al.*, 2020) plays on the same side of the fact checkers who dominate the fake news game in support to corporate interests (Foucart, Horel and Laurens, 2020). It would be naïve to assume that those resilient technocrats are simply colonized by corporate power, in spite of the increased sophistication of the regulatory capture strategies (Saltelli, Dankel, *et al.*, 2020). Important roles are played by a salvific vision of technology (e.g. innovation in biotech as an engine of growth), and, in Europe, by the fear of dangers for the common market if – due to an endless deconstruction, a centralised risk based regulation in Europe comes unravelled (van Zvanenberg, 2020).

Private interests can of course play both sides of the game, the technocratic and well as the participatory. On the same token, science can be labelled 'sound' – if expedient to existing agendas, of junk, if opposed, opaque if hostile to the protected interests, transparent if friendly (Saltelli, 2018)(Oreskes, 2018). This leaves the well-meaning observer eager to contrast madness, in a very hard place.

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