

DOCUMENT 2

Interview with Jaron Lanier from *The Financial Times* (extracts)

Jaron Lanier, born May 3, 1960, is an American computer philosophy writer, computer scientist, visual artist, and composer of classical music. Considered a founding father of the field of virtual reality, Lanier and Thomas G. Zimmerman left Atari in 1985 to found VPL Research, Inc., the first company to sell VR goggles and gloves. In the late 1990s, Lanier worked on applications for Internet2, and in the 2000s, he was a visiting scholar at Silicon Graphics and various universities. In 2006 he began to work at Microsoft, and from 2009 has worked at Microsoft Research as an Interdisciplinary Scientist.

From Wikipedia

Jaron Lanier on fighting Big Tech's 'manipulation engine' By John Thornhill 6 July 2018

[...]

In a Silicon Valley culture that mythologises youth and creative destruction, the 58-year-old Lanier can sometimes seem like the eccentric uncle in the room, worrying about the impact of technology on humanity and determined to keep society in the loop. He was one of the early pioneers of virtual reality, founding VPL Research in the mid-1980s and developing VR goggles and gloves. But he never fully bought into the tech sector's "magical thinking" and later sold out to Sun Microsystems. If you do not believe in the Silicon Valley myth of the great man, he later wrote, it is hard to aspire to be one.

In a series of subsequent books and essays, Lanier has been both evangelist and heretic, enthusing about technology's creative possibilities while warning of its destructive effects. He was among the first to raise the alarm about the harmful fallout of social media on our lives, a theme developed with passionate force in his latest book, *Ten Arguments for Deleting Your Social Media Accounts Right Now*. We would all have a clearer understanding of our world, he claims, if we relabelled the likes of Facebook and Google as "behaviour manipulation empires". His argument is that "pervasive surveillance and constant, subtle manipulation is unethical, cruel, dangerous and inhumane". In short, this weaponised form of advertising is polarising society, destroying democratic debate, and turning us into "assholes".

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[...] Lanier launches into an unsparing assault on the Big Tech companies — although he stresses that the problem is not so much the technology itself or even the corporate leadership as the economic incentive system in which we operate. Sadly, the early libertarian idealism of the internet has resulted in the creation of "gargantuan, global data monopsonies". Like many internet pioneers, Lanier wants to revive the technology's original promise. "I miss the future," he says.

Lanier argues that these platform companies are using their colossal computing power to gain a vast informational advantage, keeping the economic rewards for themselves while radiating risk out to everyone else. "It's reminiscent of a gambling economy where the only sure position is in the casino."

He is particularly damning of social media companies, even if he accepts that their services have real benefits: connecting patients suffering rare diseases or helping users find lost pets. The trouble is, as he puts it, that Facebook, Google, Twitter, YouTube and Instagram all have a "manipulation engine"

running in the background, working to the advantage of unscrupulous advertisers, scammers or Russian spies.

“The current incentive structure is that any time two people have any contact, it’s financed by a third person who believes they can manipulate the first two,” he says, sweeping his dreadlocks off his shoulders like some demure debutante. “There’s never before been a society in which everybody is under constant observation, constant surveillance and in which they’re constantly receiving this stream of experience that is being dynamically adjusted to find ways of manipulating them.”

He says his wife Lena, who has been successfully battling cancer, has found it hard to track down useful information about her condition online because the internet is so crowded with garbage from hucksters and fakers. “It’s like a labyrinth of deception.” He accepts that his campaign will not persuade many people to delete their apps. Social media has been designed to be addictive and its dominant companies enjoy “preposterously grand network effects” that make it hard to quit. But he hopes enough people will disentangle themselves for long enough to ensure there is a small, sheltered island of alternative public debate.

How he can write so sweepingly about the effects of social media if he long ago stopped using it? That, he concedes, is a “valid, inevitable criticism”, but counters that “those people who are in prison will know more about prison life than the reporter writing about prison life. Yet we need the reporter to be outside or else there will be no report at all.”

One of his biggest critiques of social media is that it de-contextualises and mashes up meaning. Every statement is chopped up into algorithmic-friendly shreds and recontextualised, often triggering a “cranky backlash” that renders it meaningless; the election of Donald Trump was the natural outcome of this cognitive confusion. Lanier says he has met Trump several times over the past three decades and has always regarded him as a typical New York conman. But, he argues, Trump has been reprogrammed by his interactions with social media. “What has happened with Trump is that he’s taking on a personality disorder that’s associated with social media addiction, the snowflake personality, where the person is super-insecure, super-ready to jump into a bizarre social pissing match.”

According to Lanier, Trump’s election has shaken the social media companies out of their complacency. The subsequent scandal surrounding Cambridge Analytica’s abuse of Facebook data has further rattled Silicon Valley and left the sector open to outside thinking. “I’m still considered a bit of an outlier, and my ideas might be somewhat radical but they’re definitely treated as a normal part of the conversation now.”

Despite growing talk about the need for state intervention, Lanier does not have much hope for regulation, fearing that it might only strengthen the incumbents. Somewhat surprisingly, he says Facebook and Google are more likely to reform themselves, partly in their own self-interest and partly under pressure from their own ethically minded employees. “The one thing that will kill them totally is if the good engineers start leaving. Then the companies will die.”

Lanier has been working with a group of radical economists to design an alternative information economy. He is an eloquent champion of the Data-as-Labour movement, arguing that if people do use social media then they should at least be paid for their posts and photographs. He hints that he is involved in backroom dialogues with the tech companies to bring about such a restructuring. “I don’t see how any society can hope to survive unless there’s at least some degree of alignment between society’s interests and economic incentives.”

In his darker moments, he wonders whether we might have lost control to our digital creations. “I’ve started to think of social media a little bit, you know, how Richard Dawkins suggested that we think of the gene as if it had a will of its own.” Is it a coincidence, he asks, that social media is trying to undermine the politicians who are trying to tame it?

Just when European governments are moving to regulate social media and data privacy, they are assailed by populist movements. The test case may come in Germany, which Lanier describes as “the centre of resistance to a lot of the madness” today. He sees evidence of the same destabilising process at work in Italy, Poland, south-east Asia, India and Africa. “If somebody wants to disrupt a particular area, they just make everybody cranky and paranoid and cynical in the way that you can using these tools because that’s what the tools are precisely optimised to do. And so we’ve entered a world of insanity. The Trump election is only one example. There will be many more until we fix it.”

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Lanier retains credibility among many West Coast technologists because of his pioneering work on VR. He became fascinated by VR as a “lonely, traumatised kid” seeking a way to connect with people through shared imagination. In his quixotic book on VR, *Dawn of the New Everything*, he described wanting to replicate the trifecta of his childhood sensory delight: the art of Hieronymus Bosch, the music of Johann Sebastian Bach, and Mexican chocolates tinged with cinnamon.

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As a VR pioneer, Lanier has argued for “post-symbolic communication” in which symbols such as words fade away to be replaced with a form of communication through improvising a shared reality. But he also came to realise that such a powerful technology could alter people’s behaviour. “This was a very terrifying realisation. Inherently, VR is the most purified form of both the best and the worst of technology’s potential.”

Hard as it is to credit at times, Lanier calls himself an optimist. But I admire the personal credo he described during a prize acceptance speech in 2014 in which he argued that death and loss were inevitable and so boring. “It is the miracles we build, the friendships, the families, the meaning, that are astonishing, interesting, blazingly amazing. Love creation,” he declared.

He supports the idea that the world is broadly healthier, better educated and happier. But he argues this has only come about because of the activism of the discontented. His stark criticisms serve a higher purpose. “At every increment of improvement in human history somebody got pissed off and said, ‘This can be better, this must be better’. To be an optimist has to mean being a critic. The enemy of the future is not the pessimist but the complacent person.” [...]

DOCUMENT 3

Interview with Yuval Noah Harari from *The Observer* 5 August 2018 (extracts)

Yuval Noah Harari is an Israeli historian who has written two bestsellers: *Sapiens*, which examined the course of early human history, and *Homo Deus*, which speculated on where we might be heading as a post-human species. His new book, *21 Lessons for the 21st Century*, is an exploration of the difficulties that confront us at the present.

You are now a highly successful public intellectual. In what ways has international recognition changed you?

Well I have much less time. I find myself travelling around the world and going to conferences and giving interviews, basically repeating what I think I already know, and having less and less time to research new stuff. Just a few years ago I was an anonymous professor of history specialising in medieval history and my audience was about five people around the world who read my articles. So it's quite shocking to be now in a position that I write something and there is a potential of millions of people will read it. Overall I'm happy with what's happened. You don't want to just speak up, you also want to be heard. It's a privilege that I now have such an audience.

Do you think people understand the implications of the bio- and infotech revolutions that are under way?

Five years ago artificial intelligence sounded like science fiction. Even though in the academic world and private business people were aware of the potential at least, in the political field and public discourse you hardly heard anything about it. Then a couple of governments realised what is happening. My impression is that the Chinese realised first what was going on. I think this stems from their national trauma from the industrial revolution, when they missed the train and they were left behind and suffered terribly. They will do anything to be in the front of the AI revolution. Over the last year or so, the Europeans and Americans also realised. And now we are heading towards a full-scale arms race of artificial intelligence, which is very, very bad news.

Why is liberalism under particular threat from big data?

Liberalism is based on the assumption that you have privileged access to your own inner world of feelings and thoughts and choices, and nobody outside you can really understand you. This is why your feelings are the highest authority in your life and also in politics and economics – the voter knows best, the customer is always right. Even though neuroscience shows us that there is no such thing as free will, in practical terms it made sense because nobody could understand and manipulate your innermost feelings. But now the merger of biotech and infotech in neuroscience and the ability to gather enormous amounts of data on each individual and process them effectively means we are very close to the point where an external system can understand your feelings better than you. We've already seen a glimpse of it in the last epidemic of fake news.

There's always been fake news but what's different this time is that you can tailor the story to particular individuals, because you know the prejudice of this particular individual. The more people believe in free will, that their feelings represent some mystical spiritual capacity, the easier it is to manipulate them, because they won't think that their feelings are being produced and manipulated by some external system.

You write in a clear and lucid style, but do readers still misunderstand you?

Yes, quite a lot. This is understandable. Sometimes it's because they don't really want to understand. Sometimes it's because many of the issues are new and complicated. I don't think reading a single book can clarify all these issues. It is the responsibility of scientists, certainly when they speak to the general public, to speak as clearly as possible. But I'm under no illusions that everyone will understand what I write in the same way I intended.

You say if you want good information, pay good money for it. The Silicon Valley adage is information wants to be free, and to some extent the online newspaper industry has followed that. Is that wise?

The idea of free information is extremely dangerous when it comes to the news industry. If there's so much free information out there, how do you get people's attention? This becomes the real commodity. At present there is an incentive in order to get your attention – and then sell it to advertisers and politicians and so forth – to create more and more sensational stories, irrespective of truth or relevance. Some of the fake news comes from manipulation by Russian hackers but much of it is simply because of the wrong incentive structure. There is no penalty for creating a sensational story that is not true. We're willing to pay for high quality food and clothes and cars, so why not high quality information?

We live in a moment of unprecedented change. Are humans built to withstand such rapid rates of change?

We'll have to wait and see. My main fear is really psychological – whether we have the psychological resilience to sustain such a level of change. The rate of change has been accelerating for the past two centuries. My grandmother is 93 and she is OK. By and large we survive. Whether we can do it again, there is no guarantee. We must invest more resources in the psychological resilience of people.