Topics ⌄   Current edition   More ⌄   Subscribe   👤 Welcome ⌄   🔍 Search

Technology and society

Pessimism v progress

Contemporary worries about the impact of technology are part of a historical pattern


📖 **Print edition | Leaders**
Dec 18th 2019

Faster, cheaper, better—technology is one field many people rely upon to offer a vision of a brighter future. But as the 2020s dawn, optimism is in short supply. The new

technologies that dominated the past decade seem to be making things worse. Social media were supposed to bring people together. In the Arab spring of 2011 they were hailed as a liberating force. Today they are better known for invading privacy, spreading propaganda and undermining democracy. E-commerce, ride-hailing and the gig economy may be convenient, but they are charged with underpaying workers, exacerbating inequality and clogging the streets with vehicles. Parents worry that smartphones have turned their children into screen-addicted zombies.

The technologies expected to dominate the new decade also seem to cast a dark shadow. Artificial intelligence (AI) may well entrench bias and prejudice, threaten your job and shore up authoritarian rulers (see article). 5G is at the heart of the Sino-American trade war. Autonomous cars still do not work, but manage to kill people all the same. Polls show that internet firms are now less trusted than the banking industry. At the very moment banks are striving to rebrand themselves as tech firms, internet giants have become the new banks, morphing from talent magnets to pariahs. Even their employees are in revolt.
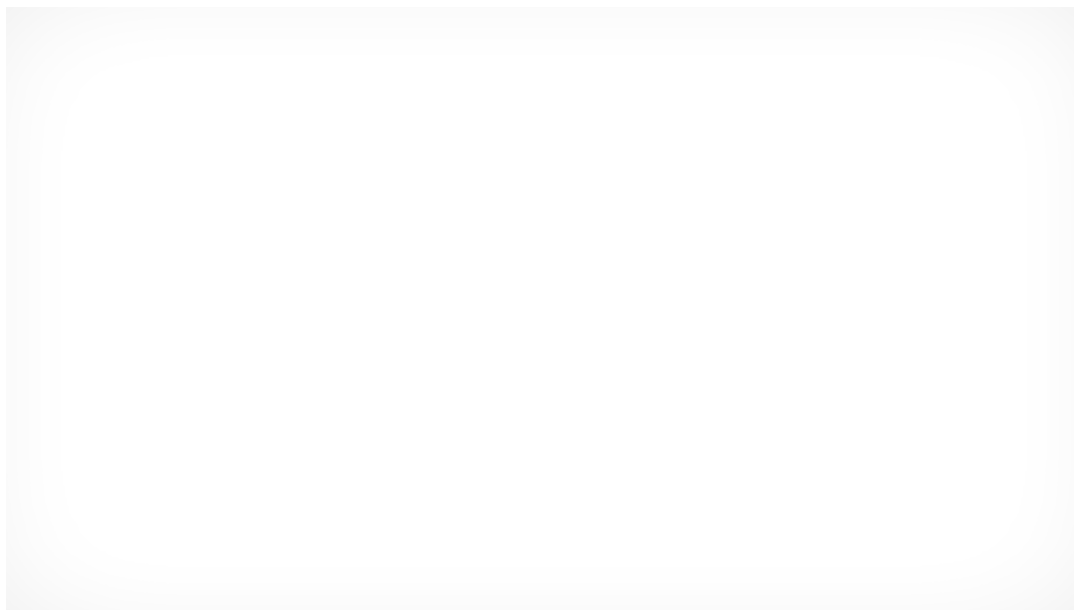
The *New York Times* sums up the encroaching gloom. "A mood of pessimism", it writes, has displaced "the idea of inevitable progress born in the scientific and industrial revolutions." Except those words are from an article published in 1979. Back then the paper fretted that the anxiety was "fed by growing doubts about society's ability to rein in the seemingly runaway forces of technology".

Today's gloomy mood is centred on smartphones and social media, which took off a decade ago. Yet concerns that humanity has taken a technological wrong turn, or that particular technologies might be doing more harm than good, have arisen before. In the 1970s the despondency was prompted by concerns about overpopulation, environmental damage and the prospect of nuclear immolation. The 1920s witnessed a backlash against cars, which had earlier been seen as a miraculous answer to the affliction of horse-drawn vehicles—which filled the streets with noise and dung, and caused congestion and accidents. And the blight of industrialisation was decried in the 19th century by Luddites, Romantics and socialists, who worried (with good reason) about the displacement of skilled artisans, the despoiling of the countryside and the suffering of factory hands toiling in smoke-belching mills.

Stand back, and in each of these historical cases disappointment arose from a mix of unrealised hopes and unforeseen consequences. Technology unleashes the forces of creative destruction, so it is only natural that it leads to anxiety; for any given technology its drawbacks sometimes seem to outweigh its benefits. When this happens with several technologies at once, as today, the result is a wider sense of techno-pessimism.

However, that pessimism can be overdone. Too often people focus on the drawbacks of a new technology while taking its benefits for granted. Worries about screen time should be weighed against the much more substantial benefits of ubiquitous communication and the instant access to information and entertainment that smartphones make possible. A further danger is that Luddite efforts to avoid the short-term costs associated with a new technology will end up denying access to its long-term benefits—something Carl Benedikt Frey, an Oxford academic, calls a "technology trap". Fears that robots will steal people's jobs may prompt politicians to tax them, for example, to discourage their use. Yet in the long run countries that wish to maintain their standard of living as their workforce ages and shrinks will need more robots, not fewer.

That points to another lesson, which is that the remedy to technology-related problems very often involves more technology. Airbags and other improvements in safety features, for example, mean that in America deaths in car accidents per billion miles travelled have fallen from around 240 in the 1920s to around 12 today. AI is being applied as part of the effort to stem the flow of extremist material on social media. The ultimate example is climate change. It is hard to imagine any solution that does not depend in part on innovations in clean energy, carbon capture and energy storage.

The most important lesson is about technology itself. Any powerful technology can be used for good or ill. The internet spreads understanding, but it is also where videos of people being beheaded go viral. Biotechnology can raise crop yields and cure diseases—but it could equally lead to deadly weapons.

Technology itself has no agency: it is the choices people make about it that shape the world. Thus the techlash is a necessary step in the adoption of important new technologies. At its best, it helps frame how society comes to terms with innovations and imposes rules and policies that limit their destructive potential (seat belts, catalytic converters and traffic regulations), accommodate change (universal schooling as a response to industrialisation) or strike a trade-off (between the convenience of ride-hailing and the protection of gig-workers). Healthy scepticism means that these questions are settled by a broad debate, not by a coterie of technologists.

Fire up the moral engine

Perhaps the real source of anxiety is not technology itself, but growing doubts about the ability of societies to hold this debate, and come up with good answers. In that sense, techno-pessimism is a symptom of political pessimism. Yet there is something perversely reassuring about this: a gloomy debate is much better than no debate at all. And history still argues, on the whole, for optimism. The technological transformation since the Industrial Revolution has helped curb ancient evils, from child mortality to hunger and ignorance. Yes, the planet is warming and antibiotic resistance is spreading. But the solution to such problems calls for the deployment of more technology, not less. So as the decade turns, put aside the gloom for a moment. To be alive in the tech-obsessed 2020s is to be among the luckiest people who have ever lived.

Reuse this content

About *The Economist*

Technology and society
Pessimism v progress

Contemporary worries about the impact of technology are part of a historical pattern

The Economist's country of the year
Which nation improved the most in 2019?

Bello
Latin America's second "lost decade" is not as bad as the first

Ice and no
Disarmament talks between America and North Korea are in jeopardy

Subscribe   **Group subscriptions**   **Contact us**

Help

Keep updated

Sign up to get more from *The Economist*

Get 5 free articles per month, daily newsletters and more.

Email address   Sign up

About *The Economist*

Advertise   Reprints

Careers   Media Centre

Published since September 1843 to take part in
*"a severe contest between intelligence, which presses forward,
and an unworthy, timid ignorance obstructing our progress."*

Terms of Use   Privacy

Cookie Policy   Manage Cookies

Accessibility   Modern Slavery Statement