

Experts Predict More Digital Innovation by 2030 Aimed at Enhancing Democracy

WASHINGTON, D.C. (June 30, 2020) – Experts and analysts concerned that technology use will weaken core aspects of democracy in the next decade also predict that digital technologies will be applied to correct these problems. Eighty-four percent canvassed in a new report by Pew Research and Elon University’s Imagining the Internet Center say there will be significant social and civic innovation in the next decade.

The report explores how experts expect organizations and individuals to address the techlash – emerging concerns about the ways in which digital technologies are being used to the detriment of society. It is part of a long-running series about the future of the internet and is based on a nonscientific canvassing of technology innovators, developers, business and policy leaders, researchers and activists who answered this question: *Will significant social and civic innovation occur between now and 2030? By “social and civic innovation,” we mean the creation of things like new technology tools, legal protections, social norms, new or reconfigured groups and communities, educational efforts and other strategies to address digital-age challenges.*

The findings: **84%** of these respondents say there will be *significant social and civic innovation* between now and 2030, while **16%** say there will *not be significant social and civic innovation* in the timeframe. When asked a follow-up question about whether humans’ use of technology will lead to or prevent significant social and civic innovation, **69%** of these expert respondents said they expect that technology use will *help significantly mitigate problems*, **20%** predicted that technology use will effectively *prevent significant mitigation of problems* and **11%** responded that it is likely that technology use will *have no effect on social and civic innovation* in the next decade.

The co-authors of this report are Janna Anderson, professor of communications, and Lee Rainie and Emily Vogels of Pew’s Internet and Technology Project. Findings are drawn from a nonscientific canvassing to which 697 technology experts responded. The results of this non-random sample represent the opinions of individuals who responded to the query and are not projectable to any population other than the individuals in this sample. The canvassing of experts was conducted from July 3 to Aug. 5, 2019.

Several key types of innovations recurred across the experts’ answers in this canvassing. Here below is a rundown of 10 of the most commonly mentioned areas of reforms where these experts expect to see innovations. The lists are a catalog of the range of anticipated advances that respondents in this canvassing propose will be likely by 2030:

Experts expect there may be social and civic innovation by 2030 in social media, privacy issues and struggles against misinformation

AREA AND DESCRIPTION	EXAMPLES OF ANTICIPATED INNOVATIONS
Social media	<ul style="list-style-type: none">Regulation will hold social media companies liable for users’ data privacy and safety.The social platform companies of 2020 will be broken up or die out.New platforms that do not rely on surveillance capitalism and targeted advertising will evolve.A greater focus on honesty and accuracy on social media will emerge.Social media platforms that focus on partisan interests will be developed.
Some experts foresee a reckoning coming for social platform companies and leaders that could lead to large-scale changes.	

<p>Privacy issues</p> <p>Actions will be taken to better protect people's privacy online.</p>	<ul style="list-style-type: none"> ▪ Regulation will be enacted to enforce digital privacy and punish abusers. ▪ Public norms will change to focus more on protecting privacy online, and media forensics will be applied to tracking privacy infringement. ▪ There will be greater utilization of smart contracts and privacy-by-design technology. ▪ Cyberinsurance will be created to cover people who are victims of cybercrime, and there will be more-effective technology tools for privacy protection. ▪ Users of free tools will be automatically informed and given choices when they are faced with a situation in which their personal information is the price of access. ▪ Government-sponsored tools will be created to protect privacy. ▪ The right to be forgotten will be embraced. ▪ There will be less targeted advertising.
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<p>Misinformation</p> <p>Due to growing concerns about the accuracy of information encountered online, efforts are being made to identify and address misinformation.</p>	<ul style="list-style-type: none"> ▪ There will be more education focused on digital literacy. ▪ Sites and apps will have methods to instantaneously fact-check information. ▪ Greater societal pressure will demand more accuracy and truth. ▪ Social norms will change so that skepticism is the starting point of information searching. ▪ There will be better tools to help people fact-check information found online, and trusted groups of verifiers will form to assess information quality. ▪ There will be more face-to-face meetings to confirm information.
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PEW RESEARCH CENTER and ELON UNIVERSITY'S IMAGINING THE INTERNET CENTER, 2020

Experts expect there may be social and civic innovation by 2030 in politics, social connectivity, health and artificial intelligence

AREA AND DESCRIPTION	EXAMPLES OF ANTICIPATED INNOVATIONS
<p>Political/government reform</p> <p>Democratic activity and government policymaking will open to more citizen engagement, and public activism will grow.</p>	<ul style="list-style-type: none"> ▪ Online voting systems will make voting more accessible; new online tools will allow citizens to voice their opinions directly to government. ▪ The ways in which public funds are spent and campaigns and lobbying take place will become more transparent. ▪ Policy changes will begin to be driven by digital civic engagement, as constituents are enabled to directly voice concerns. ▪ Multinational forums will tackle global issues via digital treaties and stakeholder initiatives. ▪ Online court systems/virtual juries will be created to decide civil cases. ▪ A wide range of deliberative processes and hearings can be open on online platforms. ▪ Some communities will embrace volunteerism in lieu of taxes.
<p>Social connectivity</p> <p>A number of innovations will help connect people and bring them together for a common purpose.</p>	<ul style="list-style-type: none"> ▪ Like-minded people from around the world will more-effectively advocate for causes. ▪ People will form online social/financial support networks. ▪ Crowdfunding/small-dollar fundraising will continue to grow. ▪ Local communities will connect through more-accessible information and resources online. ▪ Local big data will be used to improve community living. ▪ Virtual collaborations will become more commonplace. ▪ Technology will identify available aid and coordinate getting it to those who need it. ▪ Open source software, data and code will proliferate, helping ensure more-equal access to online resources and government processes.
<p>Healthier living</p> <p>Innovations will address physical and mental health; major change is coming for the health care sector.</p>	<ul style="list-style-type: none"> ▪ Users will focus more on monitoring and limiting their screen time, and overall health monitoring will scale. ▪ Tech-free leisure/vacations will become common. ▪ Health communications will be improved. ▪ Gene editing will go mainstream. ▪ Individualized gene-based cancer treatments will be created.

- Health care will more and more be seen as a human right.
- Telemedicine and online counseling will increase.
- Social norms will create more acceptance of mental illness and support for treatments.

<p>Artificial intelligence (AI) will continue to improve and be applied to improve human lives online and offline.</p>	<ul style="list-style-type: none"> ▪ Virtual assistants and avatars will anticipate and address individuals' wants and needs. ▪ AI will help identify and thwart misinformation, and it will be used to create misinformation. A prime battleground will be deepfake videos. ▪ Ethical AI will arise. ▪ AI will increasingly be used to address health issues. ▪ AI will be built to passively monitor tech platforms to identify if manipulation is occurring. ▪ It will improve the quality of information available to those who govern; they will depend upon it for policy decisions.
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PEW RESEARCH CENTER and ELON UNIVERSITY'S IMAGINING THE INTERNET CENTER, 2020

Experts expect there may be social and civic innovation by 2030 in education, labor and jobs and environmental issues

AREA AND DESCRIPTION	EXAMPLES OF ANTICIPATED INNOVATIONS
<p>Education reform Education systems will evolve in response to many multilayered societal changes.</p>	<ul style="list-style-type: none"> ▪ Schools will focus on science, technology, engineering and math (STEM) skills and STEAM (adding "arts" to STEM). ▪ People will be taught digital literacy from the earliest days of their lives. ▪ There will be even greater access to knowledge online. ▪ Lesson plans will be individualized, aimed to serve each persons' needs. ▪ More people will be educated online/remotely rather than in traditional school settings. ▪ There will be improved access to education for at-risk and marginalized groups. ▪ Ethics, compassion, diversity and moral behavior will play a larger role in curricula.
<p>Labor and jobs Business practices, individuals' work lives and the larger economy will substantially change by 2030.</p>	<ul style="list-style-type: none"> ▪ Market capitalism will be transformed. ▪ Autonomous technologies will take over more jobs and skills. ▪ Work hours and "work week" expectations will change. ▪ Work will be more specialized. ▪ In order to keep up and stay employed, workers will need lifelong education. ▪ Universal basic income will arise. ▪ Commons-based economic models will emerge. ▪ Better work-life balance will be possible. ▪ Technology workers and gig economy workers will unionize, and digital tools will improve worker organization. ▪ Workers will hold their employers accountable for harmful activities. ▪ Money will be limited or abolished at least for some transactions. ▪ Cooperative business initiatives will arise; this might reduce inequities and job displacement.
<p>Environmental issues Climate change and other environmental issues will inspire innovation out of necessity.</p>	<ul style="list-style-type: none"> ▪ Climate science will improve. ▪ New tools will address environmental issues, all forms of environmental degradation. ▪ There will be more environment-related entrepreneurship and voluntarism. ▪ A "Green New Deal" will be struck. ▪ Greater awareness of the environmental impact of technology will arise and be addressed. ▪ New social and civic policies will be more environmentally conscious.

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Following is a sample of thoughts shared by experts through this survey:

- **Melissa Michaelson**, a professor of political science at Menlo College and author of “Mobilizing Inclusion: Redefining Citizenship Through Get-Out-the-Vote Campaigns,” wrote, “I expect that by 2030 we will see increased pushback against the negatives of the digital age in the form of new technologies, more fact-checking and more skepticism by everyday Americans. What I see happening already is that people are more cynical but also more likely to engage in various forms of political participation, both on- and offline. There is an increasing recognition of the need for citizens to be savvy consumers of online information, and increased efforts by educators to arm their students with the critical tools they need to separate truth from fact. There is increasing pressure on social media companies to flag or remove information that is unreliable or inappropriate. Younger people are much better able to critically analyze online information in this way, and older people will age out of the system. Meanwhile, more and more tools are becoming available for helping everyone push back against disinformation.”
- **Alexander B. Howard**, independent writer, digital governance expert and open-government advocate, said, “I expect to see improvements to access to information through mobile computing devices, wireless broadband internet connections, open data from private and public sector sources and mature gestural and vocal interfaces. Virtual assistants driven by artificial intelligence and personal data will anticipate and augment the information needs of individuals, along with the descendants of today’s rudimentary chatbots. That which can be automated, will be. That in turn means access and equity and checking algorithmic discrimination in the provision of services or information will be a civil rights issue, along with the civil liberties challenges associated with increased data collection. Partisan polarization and increasing economic inequality may be mitigated by significant legislative changes, but dislocation and job loss from increased automation, when combined with environmental degradation driven by climate change, will put a premium on enacting reforms to the scale of the inbound challenges in the near term. Corporate influence on national governments will continue to present significant challenges to that occurring. Increasingly sophisticated disinformation that pollutes civic information ecosystems may be mitigated by the systematic development of more trust in validated sources, though illiberal political movements will create difficult conditions for the development of nuanced interventions that don’t simply result in censorship of independent media and press freedoms.”
- **Esther Dyson**, internet pioneer, journalist, entrepreneur and executive founder of Way to Wellville, wrote, “If tech doesn’t contribute to solving some of the problems it creates, we are doomed. Used well, it can enable us to do many good things more broadly and more cheaply: education, connecting people in real life (Meetup, all kinds of matching/finding platforms), and so on. But we need to recognize the motivations behind these services and make sure that metabolism/money does not overwhelm human connection.”
- **Stowe Boyd**, consulting futurist expert in technological evolution and the future of work, responded, “Technological change is an accelerant and acts on the social ills like pouring gasoline on a fire. In an uncontrolled hyper-capitalist society, the explosion in technologies over the past 30 years has only widened inequality, concentrated wealth and led to greater social division. And it is speeding up with the rise of artificial intelligence, which like globalization has destabilized Western industrial economies while admittedly pulling hundreds of millions elsewhere out of poverty. And the boiling exhaust of this set of forces is pushing the planet into a climate catastrophe. The world is as unready for hundreds of millions of climate refugees as it was for the plague. However, some variant of social media will likely form the context for the rise of a global movement to stop the madness – which I call the Human Spring – which will be more like Occupy or the Yellow Vests than traditional politics. I anticipate a grassroots movement – characterized by general

strikes, political action, protest and widespread disruption of the economy – that will confront the economic and political system of the West. Led by the young, ultimately this will lead to large-scale political reforms, such as universal health care, direct democracy, a new set of rights for individuals and a large set of checks on the power of corporations and political parties. For example, eliminating corporate contributions to political campaigns, countering monopolies and effectively accounting for economic externalities, like carbon.”

- **Beth Noveck**, director of NYU’s Governance Lab and its MacArthur Foundation Research Network on Opening Governance, said, “While we worry with very good reason about the impact of new technology on the future of work, especially the dislocation of workers and decrease in wages as a result of automation, there are also hopeful advances in the use of new technology to improve working conditions, rendering work safer and more humane. In some cases, new technologies like robotics are eliminating repetitive, dreary assembly line tasks. In some cases, automation is helping to perform dangerous work that endangers worker health. In some cases, artificial intelligence technologies are making it possible to match workers to new education and employment opportunities that are best suited to them and making it easier for them to find work. In some cases, machine learning tools are able to monitor workplace conditions to improve worker safety. However, these positive benefits will scarcely be realized without the right policies to encourage invest in and use of such tools instead of simply the use of new technology to reduce labor costs. The future is by no means certain, but the potential is there. ... We will also see proliferating experiments with new kinds of tools to improve workplace conditions and worker safety. Where I am less optimistic is about the power of civil and social tech per se to upend the power of big tech companies or subvert the role of capital in our political and economic institutions. I think we will need far-reaching legislative and policy action to address inequality, the causes of which will not be solved by technology.”
- **Brad Templeton**, internet pioneer, futurist and activist, a former president of the Electronic Frontier Foundation, wrote, “Imagining that there would be no innovation would be a remarkably stark view; the question remains about whether it will be enough. The greatest barrier is that legal and democratic institutions are deliberately resistant to change, so much so that improvements may only come outside them. Since there is now high awareness of these issues, I expect substantial effort on them. Effort will be more successful in private areas where innovation is more popular. Normally would be optimistic about success. Counter to that optimism is we now have parties actively fighting against success in some of these areas, so it’s a question of who will win, not just is winning possible.”

Read the full report: <https://www.elon.edu/u/imagining/surveys/future-of-civic-innovation-2020/>

For more information or to arrange an interview email Haley Nolan at hnolan@pewresearch.org