

Digital technology as a pro-democracy tool

challenges and outlook for public interest



The Philanthropy & Society Observatory has launched The *Observatory Papers*, a new series that aims to shed light on major current social and societal matters, while connecting them to public interest concerns. Each issue of the series will be devoted to a specific topic, offering a 360° view of the current concerns that pertain to the topic. The *Observatory Papers* will also include avenues through which public interest stakeholders can contribute, with a particular focus on foundations and civil society organisations.

The first edition of the *Papers* delves into the relationships between digital technology and democracy. Notably, it explores how the digital revolution has transformed the way public interest is defined, upheld and implemented. Accordingly, this issue provides analyses and suggests courses of action promoting the usage of digital technology in such ways that strengthen democracy, comply with fundamental rights, encourage commitment, and foster inclusiveness across populations.

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The Observatory is evolving, and so is its name

The Philanthropy Observatory of Fondation de France has been contributing to the development of knowledge about philanthropy and major social and societal issues, in France and internationally, since 1997. In 2022, the Observatory launched the "Philanthropy & Society" series, to promote better understanding and more active debate about the role, place and responsibilities of philanthropy in the face of societal challenges. From November 2024, the Philanthropy Observatory is changing its name to the "Philanthropy & Society Observatory" to accompany the development of the Observatory's strategy and activities, reflecting its determination to confront major social and societal issues for the good of all.



ntroduction	04/
. A DIGITAL REVOLUTION BUILT ON THE VALUES OF OPENNESS AND SHARING	06/
A. Technical infrastructure under multistakeholder governance	06/
Digital commons designed for and by the entire population	08/
C. Digital resources to empower populations	08/
. IS THE MONOPOLY OF PRIVATE SECTOR ACTORS PUTTING DEMOCRACIES TO THE TEST?	10 /
A. Putting business interests above public interest	•
Undermined public debate, a hotbed for disinformation	
C. A new medium for expression and mobilisation	•
. THE DIGITAL REVOLUTION,	a. /
A. Varying degrees of access to digital technology, and inequalities	21/
of undermining them	
Key takeaways Further reading	
Potential courses of action for philanthropy in France	31/

INTRO-DUCTION

The digital revolution has profoundly transformed the processes involved in generating, spreading and using information.

04

The digital revolution can be defined as a technological revolution that, through the expansion of digital technologies and resources, has profoundly transformed the processes involved in generating, spreading and using information. Due to its omnipresence in our daily lives, the digital revolution has played a part in effecting radical change in society. The sheer magnitude of the revolution led French philosopher Michel Serres to equate it with the upheaval that printing brought about in its era¹.

The impact of the revolution has been the subject of numerous debates, notably among the major personalities who have contributed to it. Lawrence Lessig, American legal professional and scholar on new forms of computer code-based regulation², announced in 2004 that the digital revolution was going to "improve democracy". Thirteen years later, Tim Berners-Lee, inventor of the World Wide Web, expressed doubts regarding the web's ability "to fulfill its true potential as a tool that serves all of humanity". Both of these viewpoints clearly illustrate the tension between, on the one hand, the promises of democracy held by the digital revolution, and on the other hand, concerns as to its ability to meet these promises.

The digital revolution is deemed a formidable pro-democracy tool: by facilitating the creation of decentralised tools, and doing away with middlemen, the revolution may be a means through which entire populations can express themselves and use digital resources to their full advantage. Specifically, it represents a golden opportunity for societies to define public interest, and contribute to upholding it, while preventing power from being sized by a minority.

In reality, however, the market has been dominated over time by only a small number of for-profit actors, commonly known as GAFAM (Google (now Alphabet); Apple; Facebook (now Meta); Amazon; and Microsoft), which operate as monopolies. Owing to their sheer size and influence, and to regulations that struggle to rein them in, these companies have deployed business models with relatively little regard for public interest.

As an example, these companies' attention-based business model, which prioritises users' screen time above all other considerations (information reliability, users' mental and psychological health, etc.), undermine public debate, as it pave the way to opinion polarisation, and facilitate the deployment of information manipulation campaigns. These companies also employ practices that go against the grain of other major democratic issues, such as the environmental transition.

On a broader scale, the transformations that were brought about by the digital revolution have upended established orders, including certain institutions and fundamental rights. Without sufficient regulation, the revolution has enabled private sector for-profit and non-profit actors, public institutions, and natural persons to employ practices that are anti-democratic, and which impinge on freedom of expression, equal rights and citizen participation. It also had a part to play in creating new forms of exclusion, notably among digitally illiterate populations that lack the ability to understand the use of electronic resources.

Nonetheless, the digital revolution has also turned into a powerful tool allowing civil society to organise, mobilise and draw attention to social justice movements, delivering its initial promise of democracy during such movements.

Numerous tensions therefore exist between the promises held by the digital revolution, and the limitations that have been observed in its deployment: these tensions lead us to question the relationships between digital technology, democracy and social justice. They are also a timely reminder of the need for foundations, civil society, state actors, and all stakeholders to jointly set the conditions under which the digital revolution can be consistent with the principles of democracy and public interest.



GAFAM

The private companies commonly known as GAFAM have established themselves across the digital value chain by developing a portfolio of activities in a specific field that acts as their centre of gravity, in which they largely dominate. Through the network effect, they have managed to seal their positions as monopolies today, directly calling into question antitrust laws. These positions provide the companies with a platform to exchange views, very often directly, with governments on a wide range of societal matters: content regulation, anti-terrorism measures, workers' rights, and others.

¹ Michel Serres, 29 January 2013, during the conference inaugurating the *Paris Nouveaux Mondes* programme, an excellence initiative by the Research and Higher Education Division, Hautes Écoles Sorbonne Arts et Métiers University (heSam).

² Regulation by the code of cyberspace is a concept that was developed by Lawrence Lessig in his article Code is Law, published in 2000. In it, he explains that user behaviour on the Internet is regulated not so much by legal frameworks, but by the technical architecture of platforms. As such, "Law is Code" does not mean "code sets the law", but that the law has to be enshrined in code.

CHAPTER 1

1.

A DIGITAL REVOLUTION BUILT ON THE VALUES OF OPENNESS AND SHARING

The digital revolution began through major technologies such as ARPANET (the first packet-switched network in the world, and a predecessor of the Internet), the Internet, and the World Wide Web, which were developed between the 1970s and 1990s. These technologies were created by several academic communities, which were driven by three core values: emulation (fostering technical excellence), decentralisation (guaranteeing that a minority would not be able to hijack the technology), and openness (encouraging innovation and international cooperation).

In order to uphold these values, institutions that involve all stakeholders in their governance – private entities, state representatives and members of civil society – have been established to manage the infrastructure of the digital revolution (a). These institutions notably include the Internet Corporation for Assigned Names and Numbers (ICANN), which manages IP address allocation, and the management of top-level domain names (see inset below). Digital commons were also developed at the same time (b). Although the role of the digital revolution was to empower populations that wished to commit and contribute to public interest, the current state of affairs paints a very different picture (c).

A. Technical infrastructure under multistakeholder governance

Beginning in the 1990s, multistakeholder governance models were progressively introduced to manage and deploy digital resources. Their goal was to ensure that the development of the Internet's infrastructure better complied with the interests of as many people as possible, notably by including a diverse range of stakeholders for more democratic governance.

However, these organisational modes quickly revealed their limits, as the stakeholders were not on an equal footing, and did not wield the same ability to assert their interests: governments did not uniformly invest resources to participate in these technical structures, civil society was often fragmented and possessed modest means, while large corporations, predominantly North American, skewed the representation of private sector entities. Some structures such as ICANN (inset below) were also seen to be favouring US interests, because their status as US-based private companies was deemed an obstacle to any form of neutrality.

Following disputes that arose between 2000 and 2010, some stakeholders set out to reexamine these models of governance. This is what several European countries (notably France and Germany) did, calling for a re-evaluation of US influence in governance bodies, by factoring in greater linguistic and geographic diversity³.

ICANN - A MULTISTAKEHOLDER GOVERNANCE MODEL TO MANAGE THE INTERNET'S TECHNICAL INFRASTRUCTURE

ICANN (Internet Corporation for Assigned Names and Numbers) was incorporated in California in 1998 to oversee the assignment of domain names and IP addresses over the Internet. Over the years, ICANN evolved to include broader participation by the international community, involving governments, companies and representatives from civil society. In 2016, initiated by the US government and international organisations, oversight of ICANN's core functions was handed over from the US government to an international coalition, marking an important step towards global Internet governance.

The global coalition that manages ICANN relies on a multistakeholder model that includes representatives from governments, the private sector, civil society, users, and technical experts. It comprises notably:

- → A board of directors, consisting of 20 members (16 elected and 4 appointed);
- → A community of volunteers, made up of global stakeholders in an advisory role;
- → Various support structures that contribute to the decision-making process, by sharing opinions and recommendations, and by holding debates between stakeholders. These structures cater to a wide variety of topics, questions on the security and stability of the domain name system (Security and Stability Advisory Committee), and to government-related questions (Governmental Advisory Committee).

ICANN delegates part of the domain name management to national organisations, such as the Association Française pour le Nommage Internet en Coopération (AFNIC, French Association for Cooperative Internet Naming) in France. AFNIC actively participates in discussions and ICANN committee meetings, and contributes to the drafting of policies, and the resolution of technical and administrative issues worldwide.

³ Conseil d'Etat, Étude annuelle: Le numérique et les droits fondamentaux [Annual study on digital technology and fundamental rights), p. 137 (in French)], 2014.

B. Digital commons designed for and by the entire population

Alongside these new governance models, the digital revolution also gave rise to digital commons, which are resources that are collectively managed, based on the principles of fair access, cooperation and innovation.

These commons reflect the democratic values of the digital revolution, as their governance is horizontal and transparent. They have precisely been built with the aim of being accessible across all segments of society, so that its members can contribute to them, thus preventing any form of exclusive appropriation.

In the 1980s and 2000s, a slew of digital commons was developed, and were notably supported by movements such as the open-source software movement: GNU/Linux, Wikipedia, Mozilla, OpenStreetMap, etc. Digital commons subsequently received less attention and fewer resources, with some of them having to contend with aggressive acquisition strategies by private sector entities. This was what happened to GitHub, an open-source platform that allowed developers to track, collaborate on, and store software and development software projects, and which was acquired by Microsoft for \$7.5 billion in 2018. Over the past few years, however, there has been renewed interest and investment in digital commons from governments, notably the European Union with its Next Generation Internet programme launched in 2024⁴, as well as from foundations (Linux, Wikimedia and Apache). This effort is part of a move to restore power to users, and realign the digital revolution with its founding democratic principles.

C. Digital resources to empower populations

The digital revolution was tipped to create conducive conditions for entire populations to access produced resources, contribute to them, and promote their interests. However, the complex governance surrounding the revolution, as well as the difficulties involved in the long-term upkeep of open-source resources that can be used and accessed by all citizens, have hampered efforts to empower individuals.

Nonetheless, the digital revolution's propensity to empower societies was highly awaited in public policy, which perceived the revolution as a powerful means to enable participation. Actors such as the Open Government Partnership and civic tech companies explain how societies can use digital technology to play a greater role in evaluating, designing and implementing policies led by governments and regional authorities. This has inspired the implementation of several initiatives, such as France's Grand Débat National (Great National Debate) in 2019, which allows direct citizen contribution on a specific online platform, among other means of participation. The debate focused on four key issues: the ecological transition, taxation and public spending. democracy and civic responsibility, government organisation and public services. However, numerous civil society actors (associations, oppositions in parliament, and citizen groups) found that it produced limited political impact. While the *Grand Débat* National did indeed allow citizens to voice their opinions in a democracy that sought to be participatory and digital, it revealed a lack in participant diversity. In addition, policy barely reflected the opinions expressed during the online consultation, calling into question the effectiveness of the platform, and of civic tech on a broader scale, in expressing and championing the diverse democratic aspirations of societies.

The digital revolution was also seen as a means to foster transparency in democracy, notably through what are known as open data strategies, which consist of providing stakeholders with data and resources pertaining to public policy. These strategies allow citizens to access data in order to make it more intelligible and more understandable, with which they can call for authorities to be held accountable for the results of the enforced policies.

Although the digital revolution has promised greater transparency, stakeholders have yet to leverage it.

As an example, digital platforms regularly publish transparency reports explaining how their moderation and curation policies are applied, and how they meet the demands of governments. These reports also aim to set out the procedures that have been implemented to regulate online discussions (removing or controlling false information and illegal content, among others). But the data provided in such reports is often incomplete, redacted in advance, taken out of context, and access to it is controlled (registration required, intermittent access, etc.).



OGP

The Open Government Partnership (OGP) was founded in 2011 by several countries. The OGP is greatly inspired by the Open Government Initiative, which was the first initiative that Barack Obama had launched when he took office. The Open Government Initiative aimed to create a "system of transparency, public participation and collaboration" in the digital realm. Today, its members include 75 countries, over 150 local authorities, and approximately one hundred civil society organisations. In 2016, France was the government cochair of the OGP

Civic Tech

Civic tech refers to online technologies that have been developed by actors in the public and private sectors, with which citizens can actively contribute to public decision-making. Civic tech involves a range of disparate tools such as debate platforms, participatory mapping, petition tools and digital social media, to make civic action accessible to every stratum of society.

⁴ European working team on digital commons, French Ministry for Europe and Foreign Affairs, Towards a sovereign digital infrastructure of commons, June 2022.

In its 2022 report evaluating transparency policies to combat information manipulation, ARCOM (Autorité de régulation de la communication audiovisuelle et numérique, French Regulatory Authority for Audiovisual and Digital Communication) underscored "the blatant lack of indicators and actual data on alerts, and on the effectiveness of its processing" communicated by platforms⁵. While these platforms are legally bound to disclose data on false information, the parties that spread it, and the audience it reaches, ARCOM observed that, in practice, none of them do so. As such, ARCOM strongly condemns "the platforms' grossly inadequate efforts with regard to the transparency of figures on the extent of disinformation, and the outcome of methods that they deploy to counter it⁶."

Various other actors (from the private sector, government bodies or civil society) have used digital resources to distort consultations and decisions presented as democratically obtained, notably through the deployment of astroturfing campaigns. Astroturfing refers to the age-old tactic of creating false popular movements to mimic support, mass rejection or overwhelming disinterest in a decision, legislation or policy. In the digital revolution, astroturfing consists mainly of creating dummy online digital identities (bots, fake accounts, troll farms), and using them to shift the direction of debate, or mimic popular support or rejection. There have been several documented cases. such as the deployment of a coordinated disinformation campaign on Twitter (now known as X), during which the people involved claimed to be citizens taking part in the 2012 South Korean presidential election⁷.

Consultations and votes in the era of the digital revolution can also be prone to severe issues, without such issues resulting from a coordinated act intentionally led by malicious actors. This was notably the case in several e-voting campaigns. Since the late 2000s, some European Union Member States have started rolling out e-voting, which led to certain successful outcomes,

for example, in Estonia, where voter participation rose exponentially (from 5.5% participation in 2007 to 43.8% in 2019). In other Member States, however, some flaws were swiftly detected: Norway suspended e-voting in 2014 after it came to light that during the 2011 and 2013 voting campaigns, part of the electorate managed to vote twice. The country also highlighted various other security risks, in particular the possibility of foreign interference, and vulnerabilities on existing electoral systems. As such, although the characteristics of e-voting appear to foster the democratic experience, many Member States today are highly reluctant to consider deploying this voting mode to all elections.

Given these challenges, the deployment of falsely democratic practices can be prevented when stakeholders possess a thorough understanding of the workings and limits of the digital revolution. With this in mind, numerous initiatives have been implemented, mainly by civil society; by illustrating how technical issues raise political questions, providing context, training on the usage of technologies, educational efforts on the risks inherent in the use of digital technologies, etc. The common goal of these initiatives is to make it easier for the general public to understand, grasp and therefore adopt new technologies. It is essentially providing the keys to enlightened, informed and autonomous usage of digital resources. As an example, the exponential increase in the deployment of language models in generative artificial intelligence, which are free and available online (Mistral7B, ChatGPT, Bard, among others), raises many concerns regarding the protection of privacy, and the relationship with information and knowledge. To allay these concerns, free online courses have been developed8 to educate the public, in an affordable and relevant format, on the limits and advantages of using these new tools.



ARTIFICIAL INTELLIGENCE (AI)

The term "AI", which first appeared in 1956 with the work of Hippolyte Taine, is considered a central element in the digital transition, and corresponds to field involving multiple scientific disciplines. Artificial intelligence is indeed a scientific field that aims to mimic human cognitive processes, such as comprehension. communication, reasoning and unassisted learning. The European Commission distinguishes between two main types of Al: software-based and embodied ones. Software Al includes virtual assistants, search engines and face/voice recognition systems, while embodied AI refers to the Internet of Things. The article refers mainly to software Al.

To understand the impact that artificial intelligence has on technology and society, several actors from civil society and the private sector in France (Fondation Abeona, Institut Montaigne and OpenClassrooms) have joined forces to coordinate a free dedicated online course entitled "Objectif IA" (Al Objective, course in French).

⁵ ARCOM, Rapport: Lutte contre la manipulation de l'information sur les plateformes en ligne (Bilan 2021) [Report: Combatting manipulation of information on online platforms (2021 assessment), p. 3 (in French)]. 2 November 2022.

⁶ Ibid, p. 15.

⁷ Keller F., Schloch D., Stier S., Yang J. Political Astroturfing on Twitter: How to Coordinate a Disinformation Campaign, Political Communication. 2019.

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CHAPTER 2

2.

IS THE MONOPOLY OF PRIVATE SECTOR ACTORS PUTTING DEMOCRACIES TO THE TEST?

The digital revolution saw the rapid rise of a small dominant group of actors known as GAFAM: (Google (now Alphabet), Apple, Facebook (now Meta), Amazon, and Microsoft). These companies have since consolidated their positions to become monopolies, imposing their norms and standards across the globe. Their monopoly upends the initial democratic goal of the digital revolution, which was to redistribute power between vendors and users.

These tech giants have developed non-inclusive practices, which are largely focused on economic gains.

Such practices are often deployed to the detriment of what are nonetheless crucial considerations for public interest, including the ecological transition (a). By prioritising an attention-based business model, these private sector entities have also created conditions that destabilise citizen participation, social cohesion, public expression, and the implementation of democratic policies (b). Yet, at the same time over the past few years, the far-reaching platforms created by these entities have also opened up new avenues for expression and mobilisation, which have played an important role in uncovering and combatting social inequality and various forms of discrimination (c).

A. Putting business interests above public interest

Tech giants have developed monopolistic resources

that very often reduce citizens to mere "consumers" without any possibility of taking part in decisions on the development and usage of digital resources, despite being directly affected by their impact. Governments have faced obstacles when attempting to rein in these colossal monopolies. For example, they struggle to deploy regulatory frameworks that adequately factor in the disruptive nature of these entities' practices.

This relates to antitrust policies (abuse of dominance, anticompetitive practices, constraining consumers through the lack of data portability, etc.), as well as a full set of public policies at the heart of contemporary democratic issues.

At the same time, these digital giants develop lobbying strategies to stifle political and democratic discussions on their business models, often by emphasising the technical nature of the issues under consideration. As an example, while platforms showcase their commitment to combatting disinformation, notably by aligning themselves with international initiatives such as the Code of Practice on Disinformation⁹, their efforts to meet the requirements of these initiatives remain limited. The reasons that actors give for their poor results include the fact that "data is difficult to obtain or produce" highlighting what they term as "business confidentiality" or the "risk of affecting the attractiveness of their service" 10.

The absence of any democratic debate on the deployment of these models has detrimental consequences.

This is notably the case with regard to the ecological transition: while these giants' business practices leave a significant impact on the environment – extraction of rare-earth elements. energy consumption by data centres, and the promotion of overconsumption – citizens and governments have no say in any debate surrounding them. Furthermore, information on these practices is often restricted and partially documented by the organisations themselves. Other drivers of change, such as legislation, may prove toothless against tech giants' ability to impose their norms, dominate markets, and present themselves to society as being essential in order to stay competitive. They nonetheless represent important areas in which governments can act. It was in July 2021 that the European Commission published the Fit For 5511 plan. Also known as the European Green Deal, this law constitutes an ambitious legislative framework with aims that include combatting climate change, while also leading the digital revolution towards a more sustainable trajectory (implementation of low energy consumption servers and data centres, extension of the European Union Emissions Trading System to new sectors and structures, promotion of a circular economy, and the reuse of digital devices).

⁹ The Code of Practice on Disinformation was signed in June 2022, under the direction of the European Commission, by research and civil society stakeholders, and organisations (including Google and Meta). The code currently has 44 signatories.

ARCOM, Rapport: Lutte contre la manipulation de l'information sur les plateformes en ligne (Bilan 2021) [Report: Combatting manipulation of information on online platforms (2021 assessment), p. 15 (in French)]. 2 November 2022.

¹¹ European Commission, Fit for 55, July 2021.

Societies have also witnessed how these major players have influenced and disrupted the way they share information. The major platforms - Google and Facebook have thoroughly transformed value chains and business models in the press industry by making themselves the intermediaries, and therefore content curators. The expansion of free online media has forced the press sector to break away from the business model that predated the digital revolution in order to keep up with demand. Various actors in the digital technology industry then attempted to implement new wealth distribution models through new obligations. This includes the review of "related rights" through the 2019 EU Directive on copyright in the digital single market. These rights are designed to remunerate publishers, press agencies, as well as content producers and creators when excerpts of their content are shared by third parties such as Google or YouTube, especially if these platforms earn advertising revenue from said content. The question of related rights raises the issue of fair remuneration for content producers in the digital age, an issue that is amplified when major platforms are seldom transparent about the metrics used to calculate their remuneration.

The upended business models in the press industry have also undermined major democratic principles, such as the requirement for constitutional pluralism, and support for cultural diversity. These principles are also being called into question, given the increasingly exclusive transmission of information over social media platforms and networks. In order to diversify their sources of revenue, a host of press companies have turned to a subscription business model, making it possible to produce content without the need for it to be visible, viral or sensational. These companies can then invest in the production of less polarising content with higher added informational value. While this process supports media pluralism, and the production of press content that meets demanding standards (reliability and verification of sources, long-term analyses, etc.), it simultaneously creates an additional barrier to entry, therefore limiting the distribution of information to as many people as possible.

B. Undermined public debate, a hotbed for disinformation

The monopoly held by X (formerly Twitter), Facebook, TikTok, and Google News has also left a deep impact on public debate, particularly due to the polarisation, filter bubbles, and false information that it fosters. All these factors put together align with these platforms' business model, which runs on attention economics. The goal in this model is to keep Internet users engaged (i.e., actively "consuming" content) for as long as possible on the social media and platforms of their preference. The algorithms at play, which feed the attention-based economy, ultimately promote the most divisive content with the highest shock value, at the expense of other necessary considerations that guarantee authentic debate: relevant sources, solid arguments, fact-checking, opposing views, etc.

Several authors have also deplored social media's participation in "mind hijacking" 12, notably by way of algorithms that are capable of identifying personal preferences and exploiting them to feature targeted advertising or political messaging. Based on their research, these algorithms operate in a way that traps Internet users in filter bubbles, making them less likely to seek objectivity. To make matters worse, social media algorithms are able to facilitate the spread of false information, with tragic consequences. Examples include the atrocities committed against civilians in Tigray, Ethiopia, which have been documented by Amnesty International 13 since 2020, and anti-Roma attacks in France in 2019, after false rumours were spread on social media accusing them of kidnappings 14. These events demonstrate that violence expressed on online platforms can lead to physical violence offline.



Filter bubbles

In his 2011 book The Filter Bubble. Eli Pariser defined the concept of "filter bubbles" as personal ecosystems of information that has been curated by algorithms and Internet recommendation systems, to create a world that specifically caters to users' likes and dislikes. Algorithms tailor future content to an individual's preferences, solely based on their past online behaviour. This leads to them following other like-minded individuals and reinforcing their existing opinions and beliefs.

^{12 &}quot;Mind hijacking" is a reference to a term used by the Center for Humane Technology in this widely read and commented Medium article: How Technology is Hijacking Your Mind — from a Magician and Google Design Ethicist, 18 May 2016.

¹³ Crimes Against Humanity and Ethnic Cleansing in Ethiopia's Western Tigray Zone, Amnesty International, 5 April 2022.

¹⁴ Agressions de Roms à cause d'une rumeur : la responsabilité ambiguë des réseaux sociaux [Attacks on Roma people because of a rumour: the ambiguous role of social media (in French)], *Le Monde*, 27 March 2019.

Measures have been taken, calling for platforms to review their design and features in order to facilitate balanced public debate. The European Union's Digital Services Act, which has been in force since August 2023, seeks to impose requirements on platforms to equip themselves with sufficient means to curb damaging trends, such as information manipulation.

Civil society has also been involved, through initiatives such as the International Partnership on Information and Democracy. As an initiative led by Reporters Without Borders, it aims to restore transparency and rationality in public debate, while defining the role of journalists and press agencies as trusted third parties. Six major principles in the charter explicitly state the duties that bind online service providers, including the major digital platforms, particularly in terms of political, ideological and religious transparency, responsibility and neutrality. The aim of these principles is to ensure that these platforms provide access to a plurality of media, information and ideas, and facilitate the visibility and spread of reliable information.

Initiatives to regulate digital platforms are crucial, considering their potential to play a pivotal role in sharing information, both true and false, during election periods. Election periods particularly exacerbate the impact of polarisation and false information, which are sometimes fuelled by actors who do not shy away from dishonest tactics (by using bots, information laundering via sources with compromised media integrity, etc.) to push their political agenda. This was the case during the MacronLeaks affair, in which a massive trove of e-mails and documents from candidate Emmanuel Macron's campaign was dumped several hours before the election media blackout for the second round of elections in 2017. These nuisance tactics – which spread swiftly by exploiting loopholes in the business models of for-profit private sectors entities - directly undermine democratic systems: their fundamental principles - notably, the assurance of sincere, active participation by society, which ordinarily vouches for the legitimacy of government – can be called into question.



International Partnership for Information and Democracy

Signed at the 74th UN General Assembly in September 2019. the International Partnership for Information and Democracy was endorsed by 51 countries. The signatory countries have committed to promoting and implementing a charter of major democratic principles in the global communication and information sphere. A Forum on Information and Democracy was therefore set up to oversee the implementation of the charter, and to build up expertise on the topic. notably through the creation of international working groups consisting of qualified individuals and research teams.

While some platforms communicate their action plans to combat disinformation (data verification, removal of fake content, etc.), civil society never has full access to these plans (see inset below). Platforms remain reluctant to offer a peek "under the hood", in part because doing so strikes at the heart of their business model. To overcome these limitations, civil society actors have formed coalitions to transparently combat information manipulation during elections, through documentation in a format that is

COMBATTING INFORMATION MANIPULATION: CIVIL SOCIETY COMMITTED TO BRIDGING THE GAPS CREATED BY MAJOR PRIVATE SECTOR PLAYERS

accessible to the general public.

The 2022 French presidential elections provided the opportunity for several government actors to address the issue of monitoring and analysing social media, in order to combat any attempts at manipulating information. This is particularly the case with Viginum, French agency combating foreign digital interference, whose mission is to monitor, detect and thwart the manipulation of online information from foreign sources.

At the same time, a gathering of civil society actors have also come together in an initiative called *The Digital Vigilance and Electoral Integrity Group*, led by global foundation Luminate, and non-profit organisation Reset. Bringing together the Alliance for Securing Democracy, CheckFirst, Complex Systems Institute of Paris Ile-de-France, Institut Français de Géopolitique, Institute for Strategic Dialogue France, Conspiracy Watch, Predicta Lab and Tracking Exposed, the aim of this initiative was to create a watchdog group to provide a different perspective and second layer of analysis on disinformation and any hate speech relating to the election. The missions of the watchdog group include:

- → Pooling and optimising the monitoring efforts in place, by comparing various observation angles and methodologies;
- → Alerting platforms to potential practices that could affect the integrity of the election;
- → Engaging in joint reflection on the large-scale circulation of content that could pose a threat to society;
- → Educating the public on the results of the research, and making them accessible to the public;
- → Striving to provide public authorities with better understanding of these dynamics, and holding digital platforms more accountable, especially in the context of the imminent application of the European Digital Service Act.

A public report was subsequently published to draw conclusions from this mobilisation, notably including the need to audit the platforms' recommendation algorithms in order to guarantee equal representation of male and female candidates.

6 17

C. A new medium for expression and mobilisation

Although major digital platforms test the limits of the public sphere, they have also proven to be powerful channels through which societies can be heard and mobilised. Societies have successfully leveraged the nature and features of these platforms to galvanise movements that sometimes spread across the globe.

The #MeToo and #BlackLivesMatter movements, to name a few, reverberated in 2017 and 2020, respectively, across social media via X (formerly Twitter) and Facebook. Although the demands of these movements address pre-existing social issues, algorithmic learning has made it possible to amplify and determine individuals' desire to act. By lowering or removing certain barriers (geographical, spatial, educational, etc.), social media networks enable public debate without any mandatory pre-qualifications.

They then become viable means of bringing together isolated individuals, and minority groups, including those in precarious predicaments, "uniting without imposing" 17, and "centralising without commanding" 18.

Anti-capitalist groups such as Occupy Wall Street in the United States in 2010, and demonstrations as part of the 15-M Movement across Europe in 2011, took full advantage of websites, blogs and social media to craft and broadcast their demands to as many people as possible. More recently in France, the climate justice campaign *L'Affaire du Siècle* (Affair of the Century) rallied over two million people on climate issues, through an online petition that was signed in record time (see inset).

L'AFFAIRE DU SIÈCLE: ONLINE MOBILISATION WITH OFFLINE IMPACT

L'Affaire du siècle¹⁹ is the name of the climate initiative spearheaded by Greenpeace France, Oxfam France, Fondation pour la Nature et l'Homme (FNH, Nature and Mankind Foundation) and Notre Affaire à Tous (Everybody's Business). In December 2018, these four public interest organisations decided to hold the French government liable for failings that have contributed to global warming, through a class action on the grounds of "failure to act on climate change".

At the same time, the coalition launched an online petition exhorting French citizens to support these demands. The petition received an unprecedented overwhelming response, garnering 2.1 million signatures in only two months, one million of which were obtained in almost 48 hours.

In response to the mobilisation, and the online and offline media coverage, in February 2019, the then French Prime Minister Édouard Philippe received the members of the coalition at Matignon, and a press release²⁰ was subsequently issued, assuring the public that the government would "respond in a timely manner to the request submitted by the four organisations behind the petition".

That same year, members of the public were also invited to contribute to the constitution of the case file, through the online map²¹ created by the coalition. Since then, the map has made it possible to locate the direct and indirect impact of climate change observed daily in mainland France, and in overseas departments and regions.

On 3 February 2021, a judgement was handed down by the Paris Administrative Court, acknowledging "the existence of ecological damage linked to climate change", and held that the French government had a responsibility to "comply with the targets it has set to reduce greenhouse gas emissions". In October 2021, a final judgment²² "called on the Prime Minister and the relevant ministers to take all appropriate measures to repair the ecological damage [...] by 31 December 2022".

¹⁵ Yuval Noah Harari: On pourra bientôt pirater les êtres humains [Human beings will soon be hackable (in French)], Le Monde, 19 September 2018.

¹⁶ Evidence from Christopher Wylie, Cambridge Analytica whistle-blower.

¹⁷ Phrase used by Dominique Cardon ("fédérer sans imposer") in Dominique Cardon, Culture numérique, Paris, Les Presses de Sciences Po, coll. "Les petites humanités" 2019, p. 180.

¹⁸ Ibid., ("centraliser sans commander").

¹⁹ L'Affaire du siècle (Affair of the Century): https://laffairedusiecle.net/.

²⁰ Affaire du Siècle : le Gouvernement répondra "dans les délais impartis" (2019) [Affair of the century : the French government will respond within the given time frames] (in French): https://www.info.gouv.fr/actualite/affairedu-siecle-le-gouvernement-repondra-dans-les-delais-impartis.

²¹ Online map: https://laffairedusiecle.net/temoin-du-climat/#Screen_4.

²² Paris administrative court, (2023): http://paris.tribunal-administratif.fr/content/download/217431/2052864/version/1/file/2321828_22122023%20Oxfam%20% 26%20Autres.anon_compl.pdf.

Furthermore, digital tools were used as novel channels of communication between demonstrators, providing them with an additional opportunity to explore the principles of participatory democracy, direct democracy and horizontal decision-making. The Nuit Debout (Up All Night) movement that emerged in France in March 2016 is often cited as an example of this new form of "digital mobilisation".

Last but not least, the Arab Spring has drawn widespread attention to the role that digital platforms can play in mobilising citizens alternatively, especially in authoritarian and undemocratic regimes. This was precisely the case in Tunisia, where the population used social media en masse to voice their dissatisfaction with the government in power²³: Likewise, in Egypt at the same time, social media featured so prominently that one of the movement's leading activists, Fawaz Rashed, explained on Twitter on 19 March 2011 that the movement used "Facebook to schedule the protests, Twitter to coordinate, and YouTube to tell the world.²⁴" In these contexts, digital platforms were widely used to bypass national censorship by movements claiming to uphold democratic principles.

THE DIGITAL REVOLUTION, **BETWEEN PROGRESS AND INEQUALITY**

The alignment of the digital revolution with social justice, in other words, the guarantee of a society built on equal rights and the possibility of benefitting from economic and social progress without discrimination, remains contested. While there is no doubt as to the open, decentralised and empowering nature of some digital resources, many question the ability of the digital revolution to benefit an entire population.

Digital resources are indeed not accessible in the same way across a population: in reality, they are not uniformly available, used, or understood throughout a country. The broad diversity in the relationship that users have with digital resources arises from a multitude of factors, such as differences in socio-economic status, and unequal access to decision-making spheres in the digital ecosystem (a).

As the digital revolution has profoundly transformed our habits, it has also disrupted our fundamental rights, sometimes to the point of undermining them (b), sometimes to the point of strengthening them, thereby upholding the digital revolution's original promise of democracy, in line with the principles of social justice (c).

A. Varying degrees of access to digital technology, and inequalities

Proficiency in the use of digital resources depends very much on an individual's socio-economic background.

As such, some sections of the population encounter obstacles that mean they cannot benefit from the digital revolution in the same way as others.



Fundamental rights

Fundamental rights are the rights endowed on every individual in states that are governed by the rule of law, and in democracies. These rights are based mainly on the principles of equality and freedom, and may fall under several broad categories, such as individual rights, collective rights and freedoms, and social rights.

²³ Zouari, K. (2013). The Role and Impact of ICT in the Tunisian Revolution, Hermès, La Revue, vol. 66, no. 2, pp. 239-245. ²⁴ Tweet on 19 March 2011.

Digital illiteracy is a major issue for part of the population, and is defined as the inability to master the use of electronic resources. This may include difficulty in surfing the web, using software programmes, reading and sending messages, and using online resources. In 2021, according to French national statistics bureau Insee²⁵, approximately 15% of the French population (over 8 million people) was digitally illiterate. The greater the central role of the digital revolution, particularly in upholding public policies, the more this section of the population will experience some form of exclusion.

In 2019, independent administrative authority Défenseur des Droits warned of the risks involved in making public services go paperless. The authority called into question the ability to uphold the founding principles of public service: adaptability, continuity and equality before public service. Three years later in 2022, Défenseur des Droits published a new report²⁶ assessing developments in the field, and more specifically, progress made on the 35 measures proposed in the first report. According to the new report: "Protected adults and prisoners have not seen their situation improved. Foreign nationals are even more massively prevented from carrying out procedures that are absolutely necessary for their daily lives and respect for their fundamental rights. There are also significant difficulties encountered by the elderly - still often remote from digital - young people - less comfortable with the dematerialised administration than may be believed and persons with disabilities - who still do not deal with accessible public services. Finally, digital procedures appear to be a sometimes insurmountable obstacle for socially uninsured persons, even though they are the ones for whom access to social rights and public services is vital." (page 4). The conclusion of the second report highlights the challenges that remain with regard to the digital revolution's ability to deploy resources that the entire population can access in public services through dematerialisation.

Digital habits, which greatly depend on an individual's social background, exacerbate existing socio-economic inequalities.

For people with only partial knowledge of administrative procedures, digitising these procedures will not help them overcome these difficulties. Even people who are completely proficient in social media, and who may come across as "digital natives" in the digital revolution, may be lost when they have to complete administrative procedures exclusively online.

The relationship between societies and digital resources is therefore built on a continuum. Any binary vision, as the terms "divide" and "inclusion" may suggest, ignores the diversity of relationships that users can have with digital resources. The report Capital Numérique - Pouvoir d'agir des habitants des quartiers prioritaires²⁷ (Digital Capital -Empowerment of Residents in Priority Neighbourhoods) sets out the limited nature of these concepts.

Digital habits also depend on digital resources' accessibility, ease of use and ability to take into account the variety of interests, profiles and values of society as a whole. However, positions in the digital sector are held by sociologically homogeneous groups that are hardly representative of society's diversity. For example, there were relatively few women in the digital sector, accounting for only 27.9% of the sector's workforce in France in 2021²⁸. This under-representation seems to be in line with other systemic factors, such as the impact of gender assignments on educational pathways, and recruitment practices that tend to focus on certain profiles (in particular highly educated men²⁹). In the real world, the lack of representation shows up as strong gender biases and stereotypes in the technologies developed by the people who have been recruited, among other outcomes.



Digital divide

The digital divide is a concept that is used to express the idea of a gap between people who have access to, and are proficient in the use of digital tools on a daily basis, and those who have neither access nor proficiency. Numerous measures have been launched to narrow the digital divide, and to even out inequalities between individuals. While the digital divide has no scientific basis, a growing number of studies has shown that digital technology is not neutral, and that its use depends on a set of determining factors that vary by individual and population.

²⁵ These figures were taken from the Insee household survey on information and communications technology (ICT) conducted in 2021 across France.

²⁶ Dematerialisation of public services: three years later, where are we? Défenseur des droits, Dematerialisation of public services (2022).

²⁷ Lab Ouishare x Chronos, (2020), Capital numérique: Pouvoir d'agir des habitants des quartiers prioritaires 2018 - 2019 [Digital Capital - Empowerment of Residents in Priority Neighbourhoods 2018-2019, , pp.15-21 (in French)], 2020.

²⁸ Numeun, Etude: Syntec Numérique et Social Builder publient un quide pour faciliter la reconversion vers ces métiers d'avenir [Study: Syntec Numérique and Social Builder publish a quide to facilitate the transition to these professions of the future (in French)], 2021.

²⁹ Haut Conseil à l'Egalité entre les Hommes et les Femmes, Rapport: La Femme invisible dans le numérique : le cercle vicieux du sexisme [Report: Invisible women in the digital sector: the vicious circle of sexism (in French)], 2023.

One example of bias was identified in a study conducted by University College London in 2021³⁰. The study looked at how effectively several algorithms detected liver cancer. According to the report, the algorithms had an overall success rate of 70%. However, an analysis that cross-referenced gender with the results of detection in people with liver cancer revealed a 77% cancer detection rate in men, compared with only 56% in women. The study pointed out that this gender bias was most certainly linked to the fact that historically, medical data has always been collected less often on women than on men. The lack of data on women resulted in the deployment of algorithms that were less capable of detecting illnesses in women than in men. IT engineers were therefore indirectly deploying algorithms modelled on male characteristics.

Women are not the only swathes of the population penalised by these biases and, more broadly, by the issues of representation: other groups, such as workers with recognised disabilities, or people from disadvantaged social backgrounds, are also affected. This goes to show that digital technology is not neutral, and the very mechanisms that introduce bias, invisibilisation and symbolic violence are reproduced in the digital sphere, as well as in other spheres of society.

To remedy the lack of diversity and inclusiveness, public policies and civil society initiatives have been implemented (see inset below). They notably aim to promote inclusiveness, educate the public on these inequalities, and make organisations in the digital sector fairer for society as a whole.

A SELECTION OF ASSOCIATIONS THAT ARE CURRENTLY WORKING TO INCREASE PARITY AND DIVERSITY IN THE TECH WORLD

Afrogameuses³²

Association that raises awareness and provides information to increase the workforce integration of people from ethnic minorities in the video game sector.

Areas of activity:

- Professional mentoring programme for young women and ethnic minorities seeking to enter the video game sector,
- → Educational workshops that aim to dispel gender and racial stereotypes,
- Studies in partnership with universities to analyse and quantify discriminatory behaviour in video gaming.

DesCodeuses33

Association that helps women living in disadvantaged neighbourhoods to enter the tech sector.

Areas of activity:

- → Free workshops to enable women switching careers to find out about training options and jobs in the digital sector,
- → Free training sessions on tech sector jobs for women who are unemployed, and eligible for back-to-work benefits.

DiversiDays34

Association that works to nurture talents that are underrepresented or endure discrimination in digital industry professions and organisations, regardless of their social, cultural or geographical origins, or their age.

Areas of activity:

- Assistance in projects that are underrepresented in the tech sector, by providing skills, a network and a springboard;
- → Creation of a digital talent directory to publicise innovative digital entrepreneurs who are often underrepresented to the media, business decision-makers, and event organisers;
- → Launch of *DéClics* Numériques, a free and open-to-all online programme, which aims to make it easier for jobseekers or people switching careers to start out in the digital sector.

³⁰ Straw, I. and Honghan W., Investigating for bias in healthcare algorithms: a sex-stratified analysis of supervised machine learning models in liver disease prediction. *BMJ health & care informatics* 29.1, 2022.

³¹ These examples are taken from the list made by Yaël Benayoun and Jacques-François Marchandise, as part of their basis for the definition of Fondation de France's digital strategy.

³² Afrogameuses: https://www.afrogameuses.com/.

³³ DesCodeuses: https://descodeuses.org/.

³⁴ DiversiDays: https://diversidays.com/.

B. A revolution that has transformed fundamental rights to the point of undermining them

The digital revolution has upended our way of doing things, and along with it, our "previously recognisable legal boundaries"³⁵. Fundamental rights such as the freedom of information, expression, assembly and association, protection of privacy, etc., have been profoundly transformed in recent years. We now have to rethink the way these rights are protected, or risk having these very rights severely undermined.

As an example, the freedom of information, i.e. the fundamental right for everyone to freely receive information, to obtain it from accessible sources, and to share it, now includes access to the Internet, social media, websites, and other online resources. However, numerous associations deplore "Internet shutdowns", i.e., "intentional disruption of Internet or electronic communications, rendering them inaccessible or effectively unusable, for a specific population or within a location, often to exert control over the flow of information."36. Shutdowns, which may be total (affecting the entire Internet network) or partial (affecting a specific application or location), have grown more frequent in recent years. Two associations have notably documented 182 shutdowns in over 34 countries in 2021, 15% more than in the previous year³⁷. Associations have also condemned some governments' decisions to cut off access to identified platforms and social media to protect national security and restore public order. The Trump administration called for the censorship of TikTok in 2020, while the French government blocked the application during violence that broke out in New Caledonia in May 2024. These shutdowns immediately call into question society's ability to preserve the fundamental right to freedom of information in the digital era, and all the more so when this right can suddenly be taken away by governing bodies.

Other fundamental rights are also at stake. Among them, the freedom of movement is being called into question by countries such as China, which uses the Social Credit System³⁸ to rank its citizens and assign each member of

society a specific status and rights based on this ranking. This system relies on the extraction of data and all online posts from social media, as well as data sharing between the various Chinese administrations.

On a broader scale, the use of digital resources can also lead governments to implement public policies and tools that are likely to undermine fundamental rights. For instance, in 2023, following a principle of digital transparency that is still rarely used by other institutions, the Caisse d'Allocation Familiales (CAF, family allowance fund organization in France) agreed to grant access to its algorithmic models³⁹, so that some civil society actors could examine them. This study highlighted the fact that the algorithm. which served to identify recipients who were to be subject to more frequent inspections, was based on the identification of "risk factors". In other words, the algorithm used by the CAF prioritised the populations with these risk factors, so that they could be inspected. Prioritisation based on specific characteristics of the population (income level, location of residence, etc.) goes precisely against the principle of non-discrimination, which is the core of our democracies and their institutions.

Fundamental rights are not the only rights that risk being undermined: several others are also affected. The right to fair and satisfactory working conditions is being seriously breached. These violations mainly affect "offshore" populations (i.e., those working in other countries, generally where wages are low and social rights are poorly protected), to whom certain tasks and jobs have been outsourced. One well-documented example is that of GAFAM moderators. Mainly located in South-East Asia, these moderators carry out intellectual work that is outsourced and poorly supervised, with potentially harmful side effects (false information, filter bubbles, etc.). Their main task is to remove any content that is deemed contentious. These moderators have to make often complex editorial decisions, which require them to place themselves in a different cultural environment, and work at a very fast pace to increase their productivity. In addition, the violent nature of the majority of the content that they moderate causes short- and medium-term psychological effects. This example, which illustrates the undermining of workers' rights, also highlights the ambivalence of the digital revolution's impact on the international scene, as well as its interdependence: not all populations view the impact on their rights in the same way, depending on where they are.

³⁵ Conseil d'Etat, *Le numérique et les droits fondamentaux* [Digital Technology and Fundamental Rights (in French)], 2014. ³⁶ https://www.accessnow.org/guide/internet-shutdowns-and-elections-handbook/.

³⁷ Access Now et #KeepItOn documented their findings, and set them out in a post published on 28 April 2022 entitled: Internet shutdowns in 2021: the return of digital authoritarianism.

³⁸ Kobie N., The complicated truth about China's social credit system. Wired Uk, published on 7 June 2019.

^{39 &}quot;Profilage et discriminations: enquête sur les dérives de l'algorithme des caisses d'allocations familiales".
[Profiling and discrimination: An investigation into the failings of the family allowance fund algorithm (in French)],
Le Monde, 4 December 2023.

C. A digital revolution to strengthen fundamental rights?

Continuous innovation has defined the digital revolution. The rapid expansion of artificial intelligence in areas such as work, information and public policy is one clear example. "Neither good nor bad; nor is it neutral" technological innovation is constantly transforming the boundaries of practices and rights, including fundamental rights: in this respect, it represents both a risk and an opportunity to strengthen the foundations of democratic societies. Bolstered by this vision, many actors are joining forces to determine with precision the impact of the technologies used and taking action to ensure that this impact complies with the major principles of fundamental rights that societies have set.

As an example, the Global Partnership on Artificial Intelligence (GPAI), an international partnership (29 countries to date) that was launched by France and Canada in 2020, brings together international experts from the industry, civil society, government, and research. The aim of this coalition is for these stakeholders to jointly determine the principles of the responsible use of artificial intelligence. The coalition regularly produces and publishes studies designed to ensure that the use of artificial intelligence focuses on human beings, and the protection of their fundamental rights. Annual summits are also organised to mobilise all stakeholders, enabling them to compare differing visions, and arrive at a common roadmap.

Other means, such as legislation, have also been deployed to ensure that the principles of fundamental rights are preserved. In May 2024, the European Council officially adopted the AI Act (Artificial Intelligence Act), which guarantees "the putting into service and the use of artificial intelligence systems (AI systems) in the Union, in accordance with Union values, to promote the uptake of human centric and trustworthy artificial intelligence (AI) while ensuring a high level of protection of health, safety, and fundamental rights". As such, depending on the level of risk and the field of application, this regulation somewhat governs the deployment and use of artificial intelligence (this is the case in particular for facial recognition systems, predictive policing tools, and systems that determine the access, admission or assignment of individuals to educational and vocational training establishments).

Systems may even be banned when the risk is deemed too high (notably social ranking). Other legislative texts, mainly European, have been enforced with the same purpose of reviewing changes to fundamental rights in the digital age, considering new applications in light of the changes (new professions, new statuses, etc.), and guaranteeing their preservation. One example is the European directive on platform workers, which aims in particular to improve their working conditions and clarify the professional status of the "new workers" in the digital revolution – those who work with digital platforms, such as ride-sharing drivers, food delivery drivers, and other workers in similar jobs.

Paradoxically, the digital revolution is sometimes less of a transformation that undermines fundamental rights, than something that highlights our societies' pre-existing weaknesses in upholding the same fundamental rights. The digital revolution sometimes indirectly draws societies' attention to these weaknesses and provides the tools to act directly on them. The debates surrounding higher education registration platforms Parcoursup and Mon Master shed light on this issue. Following the creation of these platforms to manage enrolments in higher education institutions, and their open data format⁴¹, student ranking rules can now be centralised and clearly understood, constituting a major innovation in transparency and clarity with regard to the criteria used (in the past, these rules were not set out in detail). However, despite the new knowledge on these ranking rules, there is still the need to think critically about the relevance of these rules, and their ability to uphold students' fundamental rights. In other words, companies may view the digital revolution as an opportunity to gain a better understanding of usage trends, which could not be analysed prior to the digital revolution as they were undocumented or inaccessible, and to act on them in order to ensure that they are more compliant with fundamental rights than they were in the past.

⁴¹ French Ministry of Higher Education and Research (Open data platform): Explorer les données de Parcoursup 2023 [Exploring Parcoursup 2023 data (in French)], 2023.

Key takeaways

- The digital revolution has transformed our habits, including those pertaining to democracy. It can serve, in equal measure, as a tool to empower citizens giving them new means and media for expression, mobilisation and participation and as a tool to destabilise them. The digital revolution has profoundly transformed the public sphere and has enabled the development of trends polarisation, false information, cognitive biases that are inconsistent with the conditions required for informed democratic debate.
- The digital revolution is highly diverse: it does not take the same form or make the same impact, depending on the social, economic, cultural and demographic background, and geographical location of the populations that experience it. Behind the bold promises of inclusiveness and accessibility lurk deeply discriminatory repercussions for people in some of these categories. Digital illiteracy, or the inability to master the use of digital tools, is one of the most

- visible new forms of discrimination that arise from revolution. Most of the time, the discriminatory effects stemming from the digital revolution deepen existing forms of discrimination. For example, a large number of digital resources rely on algorithms that reproduce, and even deepen, existing biases, such as the underrepresentation of certain populations.
- As the digital revolution has transformed many of the ways we do things, it has upended and shifted our legal boundaries, making the revolution likely to undermine our most fundamental rights. Freedom of expression bears the direct impact of the content moderation and curation policies that have been defined and implemented by the major digital platforms. As for freedom of information, it comes under direct threat from social media blackouts, and blanket shutdowns of the Internet in some contexts. The deployment of rating systems, such as social credit rankings, raises the question of how sustainable freedom of mobility can be in the digital age. To conclude, all fundamental rights run the risk of being undermined, yet approached in a new light, as part of the digital revolution.

Further reading

→ KEY LEGISLATION

- Council of the European Union, Brussels (8 March 2024),
 Proposal on improving working conditions in platform work.
- Direction générale des Entreprises, Feuille de route numérique de la France pour la "décennie numérique" [Digital roadmap for France in the "digital decade" (in French)], 25 March 2024.
- · Légifrance, Loi n° 78-17 relative à l'informatique, aux fichiers et aux libertés [French law no. 78-17 on the protection of private data], 6 January 1978.
- Légifrance, Loi pour une République numérique, Loi n° 2016-1321 pour une République numérique, [French law no. 2016-1321 for a digital republic], 7 October 2016.
- European Parliament, Digital Services Act or EU Regulation on a Single Market For Digital Services, 19 October 2022.

→ MULTIDISCIPLINARY WORKS

- Cardon, D., La Démocratie Internet. Prouesses et limites [The Internet Democracy: Prowess and Limitations (in French)], Seuil, 2011.

→ WORKS BY THEME

Governance, openness and digital technology:

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- French Senate, L'Europe au secours de l'Internet : démocratiser la gouvernance de l'Internet en s'appuyant sur une ambition politique et industrielle européenne, n°696 [Information report issue no. 696, Europe to the rescue of the Internet: democratising Internet governance by relying on European political and industrial ambition (in French)], 8 July 2014.

Platforms and transformation of public debate:

- Amnesty International UK, Ethiopia: Facebook algorithms contributed to human rights abuses against Tigrayans during conflict - New Report. 2023.
- Fisher, M., Cox, J. W., & Hermann, P, Pizzagate: From rumor, to hashtag, to gunfire in D.C. The Washington Post, 6 December 2016.
- Harari Y.N., 21 leçons pour le XXI^e siècle [21 lessons for the 21st century (in French)], Editions Albin Michel, 2018.
- Pariser, E. The Filter Bubble: What the Internet Is Hiding From You. Penguin UK, 2011.
- Tufekci, Z. Twitter and Tear Gas. The Power and Fragility of Networked Protest. Yale University Press. 2017.

Monopolistic business model of major platforms:

• Smyrnaios, N. The GAFAM effect: Strategies and logics of the internet oligopoly, vol. 188, no. 2, pp. 61-83. Communication & langages, 2016.

Potential courses of action for philanthropy in France

- Raise awareness of stakeholders on the revolutionary nature of digital technology, and more specifically, its ability to influence all areas of social life. What this means for stakeholders, especially those in the public interest sector, is that they must systematically integrate the impact of digital technology into how they understand and address social and societal issues.
- Support civil society organisations that work towards implementing digital technology for public interest purposes (rights-based approach, citizen participation, pluralism, etc.).
- Encourage the creation of public forums for dialogue between the various stakeholders (government, civil society, private sector entities, among others) in order to identify, analyse, prevent and regulate any misuse of digital resources. The aim of these forums would be to formulate and establish concrete action plans (roadmaps, etc.).
- Facilitate discussions, cooperation and synergy among civil society actors in technical committees and Internet platform. Uniting these actors adds strength to their expression and visibility in the development and use of digital resources.
- Promote and develop training courses for foundations and associations, in order to educate trainees on digital technology issues, in particular those regarding inherent biases in digital resources that introduce or deepen inequality and discrimination, as well as the biases introduced by new technologies (surveillance, data transparency, etc.).

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