



HM Government

The logo for the Future Tech Forum. It features the word "FUTURE" in a large, white, sans-serif font. Above each letter of "FUTURE" is a vertical line of varying height, resembling a stylized bar chart or signal. Below "FUTURE" is the word "TECH FORUM" in a smaller, white, sans-serif font, with wide letter spacing. A small white dot is positioned to the left of the "F" in "FUTURE".

FUTURE  
TECH FORUM

Future Tech Forum  
Chair's Report

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## Foreword

**As Digital Secretary, it was a privilege to host Ministers and tech leaders from around the world in November 2021 for the Future Tech Forum.**



**The Rt Hon. Nadine Dorries MP,  
Secretary of State for Digital, Culture,  
Media and Sport**

We came together to build a shared vision for the future we want from digital technologies, and a path to get there.

Over the last decades, digital technologies have reshaped our everyday lives, our economies, and the fabric of our societies. Two thirds of the world - over 5 billion people - now use the internet, and more people are being brought online everyday.

We convened our partners because we are at a crossroads. We know digital technologies have tremendous potential to transform our lives for the better, but they can also be harnessed for malign intent.

Today, there are two competing visions for the digital future taking hold. One seeks to use digital technologies to curtail hard won freedoms, empower authoritarian regimes, and undermine our shared prosperity.

We see this harmful use of technology in the current conflict in Ukraine, with Russia sharing false justifications for their aggression online as part of their information war.

Another vision - our vision - wants the digital revolution to strengthen open societies, empower citizens, drive forward innovation and growth, and defend our democratic values and human rights. To make our vision a reality, we cannot work alone or only with our traditional partners. We need to work with future leaders in digital and tech to build a global consensus. We need to work with industry leaders who are building our digital futures. We need inclusive perspectives on the challenges we face, and how to solve them.

Throughout our discussions at the Forum, I was inspired by the insightful, diverse reflections from global participants on the challenges and opportunities of the digital age. We agreed that data and tech is a force for good, but only if its transformative power is harnessed safely and responsibly.

Government and regulation do have a role, but we cannot rely solely on traditional models. We need to bring a creative, agile approach to governance of a sector defined by constant innovation. We can design frameworks that protect societal and individual interests, and nurture thriving digital and tech sectors.

We know that to build the future we want, we will need to widen access to the internet, and to the opportunities this global digital transformation presents. We need stakeholders to invest in building digital capabilities and skills, with a particular focus on supporting communities in their digital development.

It is also clear that companies need to play their part. Tech giants hold immense power: from ownership of the infrastructure that connects us, to control over the information we see online, to the tools they can use to shape consumer behaviour. We are seeing how this power can be used for good in Ukraine, with tech firms front and centre in efforts to call out and demonetise Russian disinformation, protect Ukrainian cyber infrastructure and support the broader humanitarian effort. We need companies to embed the same responsible, human-rights based approach to the design, development and deployment of new technologies.

Only if we collaborate can we deliver the transformative change and progress we all want to see. The Future Tech Forum was the start of a conversation - the UK is committed to continuing it. London Tech Week is being held in June, and will convene government, industry leaders, entrepreneurs and investors committed to a responsible digital future. It will provide a further opportunity to explore how to realise our shared vision, with input from diverse stakeholders.

We look forward to working with the OECD to strengthen the focus on this issue in the OECD's work programme, to explore new opportunities to bring together friends and partners to continue November's discussions and to turn ideas into action.

## Executive Summary

# As a commitment made under our G7 Presidency, the UK hosted the Future Tech Forum in November 2021.

We convened 200 participants from around the world, both at London's Science Museum and through virtual attendance, bringing together leading figures from the tech industry, governments, civil society and academia.

### The Future Opportunities of Digital Technologies

Digital services and the development of new technologies have driven exponential change in our lives. They have connected people, helped promote democracy and human rights, underpinned global economic growth, and transformed the way we provide healthcare and education. Digital technologies offer tremendous opportunities to drive transformational change, including - among other issues - real progress in tackling climate change and improving global health outcomes.

High quality data is fundamental to the design, development and deployment of these transformational digital technologies. It supports informed policy-making and service delivery, and can lead to greater consumer choice. However, irresponsible data collection and use are a significant source of public concern.

The Future Tech Forum provided the platform to discuss how we, as open societies, need to work together to shape the future of these digital technologies. How do we use technological innovation to harness shared opportunities? How do we uphold the international rules-based system, and defend our values in the face of rising authoritarianism?

## How We Get There

In order to realise this potential, Forum participants called for greater cooperation and interdisciplinary working. They emphasised the need to bring together a broader and more inclusive range of partners - in particular, those from communities at the forefront of threats posed by climate change and global health crises.

Discussions highlighted the need to focus on user-centred approaches when developing new digital technologies. If tech-driven solutions are to be widely scaled and adopted, innovators must consider the potential benefits, and risks, technological developments present.

On regulation, core values of open and democratic societies should be embedded in the governance of digital technologies, in order to realise the vision of future tech that we want to see. We can support this by ensuring greater consistency in domestic and international approaches to regulation and collaborating internationally around shared principles.

Good quality, trusted, and accessible data was recognised as a key condition for harnessing digital technologies for good. This requires data collection frameworks with an emphasis on security and transparency. Investment in the collection of reliable data is also important, contributing to the design of effective and equitable tech initiatives.

To build public trust, Forum participants recognised the need for greater transparency in the ways data is collected, used and

shared. Awareness-raising and targeted communications campaigns were encouraged, as were improving digital skills and data literacy. We discussed new approaches to data safety such as the implementation of Privacy Enhancing Technologies and Trusted Research Environments, which are at the heart of future data solutions.

Collective and collaborative governance by a multistakeholder community has been a defining success of the internet. However, in recent years this multistakeholder model of governance has been put under increased pressure by authoritarian governments. Forum participants reaffirmed the need to uphold a positive vision of an open and free internet, helping the next generation of internet users benefit from these guiding principles.

## Future of the Future Tech Forum

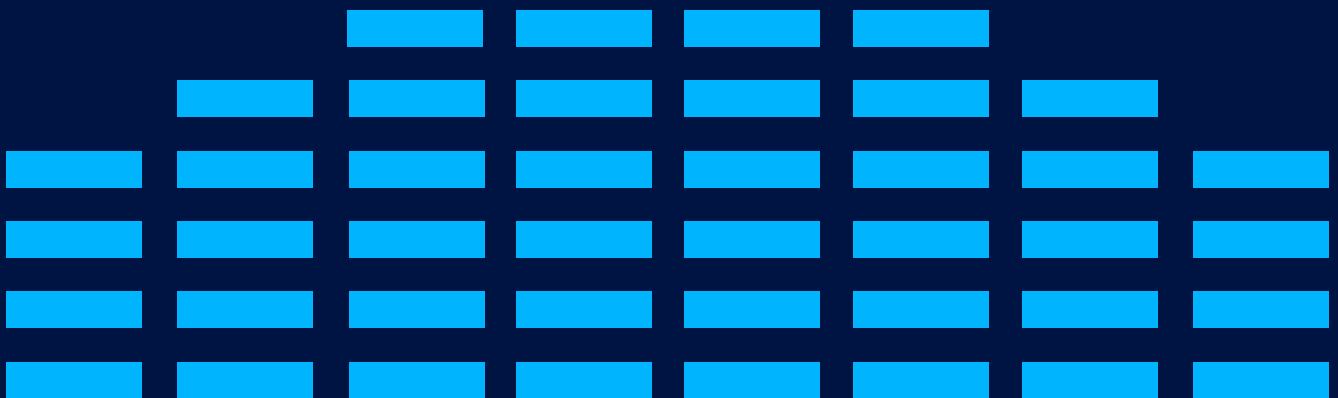
The Future Tech Forum showcased the desire among partner countries and wider stakeholders to discuss the future of digital technologies. Stakeholders have noted the benefit of proactive thinking on how we set a positive vision for the future of technology and use appropriate governance frameworks. Our intention is that the Future Tech Forum provides momentum for an ongoing discussion on these crucial issues. Although it was designed as a one-off event, the UK is excited to be working with the OECD to continue the discussions that the forum enabled.

The Forum is part of a broader effort between like-minded countries and stakeholders to consider the future of digital technologies. These initiatives include:

- > **Summit for Democracy:** Organised by the US State Department in December 2021, the Summit brought together governments, industry and civil society to propose actions designed to renew democracy globally. This included discussions on how to invest in the development, use and governance of technologies that advance democracy and human rights.
- > At the Summit, the US announced its intention to build an alliance for the future of the internet. This resulted in the **'Declaration for the Future of the Internet'**, launched in April 2022, with a planned Summit in summer 2022.
- > At the Future Tech Forum, discussions were held on the future of the internet's technical architecture, technical standards, and governance through a multistakeholder panel and government roundtables. The Declaration broadens this to encompass other issues such as online safety, internet shutdowns, and affordable access.
- > **G7 Roadmap for Data Free Flow with Trust:** At the 2021 G7 Summit, Digital and Tech Ministers agreed a series of four areas for further cooperation to enable open data flows with appropriate safeguards in place. G7 countries will continue to make progress in all four areas, which include greater regulatory cooperation, government access to data and data sharing for priority sectors (such as healthcare).



# The Future Opportunities of Digital Technologies





## Digital technologies and data are an incredible force for change across the world.

The digital revolution has the potential to strengthen our open societies, drive forward innovation and growth, defend our democratic values and human rights, and counter digital authoritarianism.

They are essential and agile tools in tackling some of the world's biggest challenges. As digital technologies underpin ever more aspects of our lives, the way we choose to govern them will have huge implications for our prosperity, safety and society.

Forum sessions focused on two global challenges – health and climate. The COVID-19 pandemic has brought into sharp focus global inequalities in health, both in preventing illness and in diagnosing treatment. It has also shown us the interdependencies in our collective efforts to improve health outcomes. On climate, in 2021 the UK hosted the COP26 Conference. Commitments made at the Conference included pursuing reduced global average temperatures, phasing down coal power and halting forest loss.

Digital technologies have a huge role to play in meeting these goals. Realising the potential of these fast-evolving digital technologies will require a concerted and coordinated effort across the globe from governments, industry, academia and non-governmental organisations.

Forum participants also considered the importance of digital development, and ensuring that developing countries are supported in their digital transitions. Connectivity is the main goal of emerging nations. This can be supported by developing the necessary digital skills, providing a safe, inclusive environment to explore new technologies and enabling local, digital innovation.

## Health

Digital technologies have huge potential to make the healthcare sector more efficient, improve health outcomes, and empower patients to make informed choices about their care. At the heart of this innovation is the healthtech sector, an industry already worth hundreds of billions of pounds.

One Forum session examined the enormous potential of Artificial Intelligence to increase the efficiency of healthcare systems, and improve health outcomes through better detection, prediction, and care delivery. Session participants outlined some of the interventions made possible by Artificial Intelligence; these range from the automation of administrative tasks to gene sequencing for vaccine production. Safe, effective and ethical Artificial Intelligence-driven technologies can also provide earlier and more accurate diagnosis for conditions such as cancer and heart disease, by analysing vast amounts of health data in faster and more efficient ways.

Another session considered the role of data in healthcare and the emerging field of healthtech solutions, using technology to offer more personalised and effective care to patients. The World Health Organisation's and Microsoft's 'World Health Data Hub' was highlighted as an example of industry and intergovernmental collaboration. The Hub is an end-to-end digital solution to streamline data processes and improve access to global health data as a public good. It allows participating countries to upload and review data in a secure environment and provides powerful analytics and visualisation tools to drive healthcare policies and solutions.

A third session considered how advances in nano-, bio- and material technologies are contributing to further work on 'human augmentation', where science and technology is applied to areas such as supporting better health outcomes. Seen through advances in stem cell therapies and gene editing, these developments contribute toward 'personalised medicine'. This approach creates significant benefits for individuals and healthcare systems, although it clearly also presents essential ethical, legal and social questions for stakeholders to consider.

## COVID-19 Pandemic

Throughout the COVID-19 pandemic, the ability to access and interpret real-time data has been instrumental in informing government policy.

Accurate, reliable data has allowed governments to identify the demographics most at risk from the virus, and tailor interventions accordingly. It has enabled the mapping of new outbreaks, the provision of appropriate testing facilities, and predictions of surges in hospital admissions. Data tracing the spread of the virus has facilitated interventions to reduce its circulation in communities.

Governments have exchanged data and insights across borders, helping countries learn from each other's experiences and respond proactively. Big data has expedited the design, production and roll out of the COVID-19 vaccine, and helped map its uptake across different communities. Data on the effectiveness of vaccines is allowing for improvements in how we tackle future variants of the virus, and how we design and roll out alternative treatments for the future.

## Climate

Digital technologies can be harnessed to address the negative impacts of climate change. By improving trend analysis, they provide innovative methods for countries to reduce harmful emissions. Technological breakthroughs in the climate and energy sectors also have the potential to boost economic growth and continue innovation in sustainable industries. This, in turn, can create jobs around the world in emerging industries focused on achieving shared climate goals.

Two panel sessions focused on the interaction between climate change and new technologies designed to mitigate its impact. Specifically, Forum participants considered the role of digital technologies in achieving Net Zero, and what governments can do to maximise their impact. A second session looked at the emergence of digital climate tech - a fast-growing sector - and how stakeholders could enable new products to be scaled at pace in order to tackle the climate crisis.

Digital tools such as Artificial Intelligence can be used to optimise the modelling, tracking, mapping and analysis of trends related to climate. Artificial Intelligence can also be used to forecast electricity generation and demand, and find inefficiencies in emission-heavy industries.

For example, Artificial Intelligence can be used to coordinate electric vehicles (EVs) charging, determining when green energy is at its cheapest and there is an abundance, thereby maximising the grid and ensuring less energy is wasted. With this technology, governments and businesses can improve their planning, make more targeted interventions, and mitigate the impacts of climate change. Digital interventions also allow consumers to monitor and control their own use of energy, providing them with the information needed to make informed decisions on their consumption.



# How We Get There



## Innovative solutions to global challenges require broad and inclusive perspectives.

In particular, communities at the forefront of threats posed by climate change and health crises must be part of efforts to understand and explain challenges and design solutions. This includes the collection of more globally representative data, the amplification of diverse voices at international fora, and efforts to boost digital literacy, skills and infrastructure across the globe.

The Forum benefited from a wide variety of voices and perspectives - including those from developing nations who will drive the digital transformation of tomorrow - who were able to offer invaluable perspectives on how future technology needs to be accessible and deliver benefits for all in order to effectively tackle global challenges on the climate and on improving health outcomes.

### User-Centred Approach

Discussions recognised that a user-centred approach to the development and application of digital technologies is essential. When using personal data and implementing digital technologies that intervene in matters of human health and safety, ethical considerations must be integral within development and testing. Participants reflected that Artificial Intelligence solutions need to be human-centred to support improved outcomes, helping to address the emerging ethical and social questions associated with using Artificial Intelligence in tech solutions.

## Case study - Global Partnership on Artificial Intelligence

The Global Partnership on Artificial Intelligence (GPAI) is an international multistakeholder initiative, bringing together experts from governments, international organisations, science, industry and civil society to foster international cooperation on Artificial Intelligence based on their democratic principles. GPAI works to bridge the gap between theory and practice on Artificial Intelligence by supporting collaborative research projects and applied activities in addressing shared policy challenges.

A working group on responsible Artificial Intelligence has been established within GPAI, with a mission to “contribute to the responsible development, use and governance of human-centred AI systems”. The working group brings together world leaders from academia, industry and non-government organisations, focused on Artificial Intelligence solutions that support progress towards the current UN Sustainable Development Goals. In 2021, the working group established a series of sub-committees, focusing on the role of Artificial Intelligence in tackling climate change, supporting the transparency of social media platforms and enabling improvements in drug discovery.

Consumer choice was seen by Forum participants as both a challenge and an opportunity for accelerating Net Zero. Discussions considered the role of consumers in driving demand for technologies that tackle climate change. At the same time, participants recognised the need to embed climate goals into the design and development processes for new technologies, in order to influence and incentivise positive change in consumer behaviour.

In addition, it was recognised that stakeholders must ensure that new technologies are safe, resilient, robust and secure for people to use. This also means building a future internet that is ‘safer by design’, where companies, civil society groups and governments work collectively to tackle online harms and promote a vision of a more inclusive online space, where marginalised users have a stake by having the confidence to speak out and form safe online communities. Participants argued that the multistakeholder community should continue working to build a more inclusive place for all online, working with the users who will shape this future space.

## Regulation of Digital Technologies

Governments and regulators should enable and incentivise responsible innovation. Discussions at the Forum highlighted that, by employing new, more agile regulatory tools, governments can ensure the rapid pace of technological change can go hand-in-hand with safeguarding societal and individual interests. To promote an innovation-friendly environment, promote fair competition, drive growth in digital markets, and provide certainty to industry, digital regulation should be transparent, clear and predictable.

Participants also acknowledged the inherently unpredictable nature of public policy challenges associated with new digital technologies. Many of the traditional measures used to regulate markets become complicated to apply in the digital age. For example, the concepts of ‘market share’ and ‘prices’ are difficult to measure in competition regulation where services are offered at no cost to end users.

Regulatory interventions in an emerging market can have unintended and unexpected consequences, requiring rules to be adapted. Participants acknowledged the challenges of ensuring the balance between fair, competitive markets and consumer privacy. Participants also noted that greater challenges are being posed by new digital technologies, where the challenge of trying to fully understand new tech and its impacts competes with demands for effective regulation of these emerging technologies.

Contributors reflected that enforcement of rules has historically been weak, with certain, multifaceted technologies evolving ahead of regulation. To address this, regulators are now considering the new skill sets and expertise they need to effectively manage these new challenges by taking an interdisciplinary approach, for example by turning to data scientists and Artificial Intelligence experts to complement legal and economic expertise. Similarly, the UK's newly

established Digital Markets Unit has been set up with a mix of professionals from other antitrust functions and external recruitment for lawyers, economists, data scientists and financial analysts to work on digital matters.

Participants encouraged governments to move more quickly to put in place 'good enough', agile and forward-looking regulatory measures which would better protect immediate consumer and societal interests, whilst accepting the potential trade-off in terms of market certainty.

Importantly, it was recognised by Forum participants that, for digital regulation, international governance mechanisms or uniform domestic approaches are not always needed. However, regulators and governments can benefit from regular and early coordination, to share insights, experiences and best practice, and to better understand how distinct domestic approaches may interact.



## Innovative and Agile Approaches to Regulation

Forum participants highlighted innovative and agile approaches to regulation as a key way to promote innovation whilst also protecting citizens. These include interventions such as industry self-regulation, voluntary standards and codes and regulatory sandboxes.

Voluntary standards and codes were cited in a number of panels as a way to provide clear and specific guidelines to industry that could be flexible and adaptable. These types of agile, non-legislative approaches to regulation were seen as an essential way of providing nimble approaches to governance without stifling innovation.

Regulatory sandboxes were also mentioned as a model that could be applied more effectively in the digital and tech sector. A sandbox is a framework set up by regulators where some rules have been temporarily removed. Within this framework, businesses can test innovative products, services, models and delivery mechanisms, enabling innovation in a safe environment.

Forums to improve cooperation between regulators are a novel, but emerging approach. For example, the Digital Regulation Cooperation Forum (DRCF), comprising the UK's Competition and Markets Authority, Financial Conduct Authority, Information Commissioner's Office, and Ofcom, was formed in July 2020 to ensure greater cooperation on online regulatory matters.

### Case study: ICO regulatory sandbox

In 2019 the Information Commissioner's Office - the UK's data protection authority - launched its regulatory sandbox, an initiative to support organisations who are creating products and services. Working with ICO experts, organisations can receive guidance on how to mitigate risks when using personal data, helping to embed 'data protection by design' as part of wider efforts to build public trust around data usage.

Since the launch of the programme, the ICO has worked with organisations including businesses, charities and local authorities to support the design, development and rollout of numerous projects aimed at using data for the public benefit. This includes tackling bias in biometric identity verification technologies, supporting young people's access to affordable financial services, sharing data across regions to tackle homelessness and increasing datasets available to healthcare researchers in order to improve the detection and treatment of common illnesses.



## Data

Good quality, accessible data is essential in harnessing digital technologies for good, in particular when designing initiatives powered by Artificial Intelligence. Forum participants argued it is essential for Artificial Intelligence models to have been trained on big and diverse enough datasets to ensure they perform well for the intended population and do not propagate bias. Stakeholders need to establish appropriate baseline standards and assurances, and invest in the collection of reliable data.

Forum stakeholders identified, as a key priority, the need to build a common international approach to ensure data is responsibly sourced and reflective of societal diversity. Participants noted how baseline standards and assurances can boost data availability and quality, by creating a common language and expectations around how data should be used, shared and appropriately managed. An inconsistent approach to the development of standards and assurances will only create barriers to data flows. Possible mechanisms include the development of common codes of conduct, agreeing upon shared professional standards or conducting impact assessments on data usage.

Shared principles and standards can also enable better cross-border data sharing between governments, researchers, and the private sector. Building consensus internationally - through bilateral and multilateral channels - on the principles underpinning domestic data approaches is essential. Currently, data-rich nations are disproportionately driving the global conversation on data. In particular, Forum participants recognised that lower and middle-income countries need to be better represented in international discussions on data governance, to ensure proper representation of different views and perspectives. These countries also need adequate digital infrastructure to collect their own accurate, representative data, and to have proper access to global data made available, to support international solutions to shared challenges.

## Public Trust

Discussions identified a lack of public trust as a major obstacle to maximising responsible data sharing. There is now greater public understanding of how data on individual behaviours is gathered online through digital tools and technologies. The public is also more aware of the value of their personal data.



Forum participants discussed how high profile data breaches, and evidence of irresponsible data use, has heightened public concern. This can discourage individuals from consenting to data-sharing, even where appropriate data protection regulation is in place. To overcome this lack of public trust, we must ensure ethical, transparent and accountable data collection. This includes transparency on how data is gathered, processed, used and shared by the private and public sectors. Delivering on these proposals will go a long way to building public trust and unlocking the significant benefits data sharing brings to all parts of the economy.

Discussions also noted that actors - including governments, academia, and private sector partners - should do more to advocate for the public good of large scale data collection. Participants encouraged awareness-raising and targeted communications campaigns that enable informed consent. It is clear that the public, rightly, wants to see actors held to account for irresponsible and unlawful data use. The basis for the public narrative on data, however, should be the considerable benefits that responsible data sharing can have in the development of future technology for all, rather than these robust responses to individual cases.

### **Case study: Centre for Data Ethics and Innovation**

The first in the world of its kind, the Centre for Data Ethics and Innovation leads the UK government's work to enable trustworthy innovation using data and Artificial Intelligence. Its mission is simple: to facilitate responsible and trusted innovation to improve the lives of citizens and support growth. It is vital that the public can trust innovation in data and Artificial Intelligence. To earn that trust, CDEI works with partners across the public sector, industry and academia, in the UK and internationally, to identify and tackle barriers to responsible innovation.

CDEI is working with the Cabinet Office's Central Digital and Data Office to develop and pilot an algorithmic transparency standard for government departments and public sector bodies. The standard will help teams to be meaningfully transparent about the way in which algorithmic tools are being used to support decisions. When developing the standard, experts from across civil society and academia were consulted, as well as the public. The standard is one of the world's first concrete examples for algorithmic transparency in the public sector and contains two tiers:

- > Tier one includes very accessible high-level information on how and why the algorithmic tool is being used, as well as where to go to get more information.
- > Tier two goes into more detail for those who want to find out more and includes: owner and responsibility; description of the tool; information on how the tools are integrated into the decision making process; information on the data used and, finally, risks and mitigations.

Creating a positive narrative - framing responsible data sharing as essential to scientific progress and good governance - should encourage individuals to willingly share their data. A change in public perception could allow governments and healthcare providers to move from a system where they use data to manage sickness, to one of proactively supporting people to be healthy and stay healthy. Improving the public's digital skills and data literacy will also increase awareness of the opportunities presented by the responsible use of personal data.

### **Innovation to Build Public Trust**

Forum participants highlighted the innovative approaches governments can take to enable responsible data use, including privacy-by-design methods that integrate privacy from the very beginning of developing business practices, products, services, and physical infrastructure. They are proactive, help anticipate risks to privacy, and build security into a core function of data collection.

- > **Privacy Enhancing Technologies (PET):**  
PETs present an important opportunity to harness the power of data. They are a group of emerging technologies that allow the use of data in a way that protects privacy and intellectual property, but also enable cross-border and cross-sector collaboration. PETs are already being used to tackle a range of societal challenges - from financial crime to COVID-19 - by enabling data use in ways that preserve privacy.

- > **Trusted Research Environments (TRE):**  
TREs are highly secure computing environments. They hold data - with personally identifying information removed to protect privacy - in a secure location, and enable approved researchers to access it for analysis. TREs can be used in healthcare settings to make research more efficient, collaborative, cost effective, and representative, whilst maintaining individual privacy.

### **Future of the Internet**

The internet has reshaped the world in the half century since its inception. However, in recent years, support for a global, free, interoperable internet and its multistakeholder model of governance has faced sustained pressure. As the internet has matured, authoritarian regimes have sought to divert its evolution away from what has made it successful. They project a vision that would redesign the internet, asserting their control at a technical level, and bringing its governance under restrictive supervision.

Forum participants discussed how concentration of control over the internet is reaching an unsustainable juncture, with a select set of industry players now presiding over large portions of critical infrastructure. It was noted that this is in contrast to the internet's founding principles of decentralisation, interoperability, and permissionless innovation, and puts the internet's resilience and openness at risk.

Participants indicated that the large role some industry players now have in managing the internet's technical infrastructure can also lead to disproportionate influence in setting the internet's future infrastructure and governance arrangements. Discussions at the Forum considered the actions necessary to address these challenges, and to uphold a positive vision for the internet, founded on open society values.

### Expanding Access

In the context of the coming decade, participants agreed that to realise the promise of a global internet, all stakeholders need to do more to promote internet connectivity and access. Digital divides between high-income countries and lower and middle-income countries, with billions remaining without meaningful access to the internet today. The internet has the potential to drive incredible changes in the education, health, and employment of new users. However, this opportunity is hampered by inequalities of access within countries and communities: gender divides, rural-urban divides, and others.

Promoting meaningful access to the global, free, open and interoperable internet means enabling individuals to have affordable, reliable, and secure connectivity, and the skills and knowledge to use the service. Participants recognised their role in addressing these obstacles to access, including on availability, affordability, and digital literacy, particularly in developing economies. To do so, discussions highlighted the need for private sector investment and public-private partnerships, with the Forum providing the opportunity for further engagement and actions amongst stakeholders in this regard. Governments should also foster innovation - working to avoid rigid or non-transparent regulatory frameworks that can undermine investment in digital infrastructure.

Participants agreed on the importance of ensuring that communities who are now coming online are able to play active roles in the evolution and governance of the global internet. More active participation of underrepresented voices at multilateral fora, and sharing information and learning across borders, will enrich internet governance and standards-setting, building an internet that delivers for all.



## Multistakeholder Cooperation

The complexity of the opportunities and challenges of the next decade requires a positive approach to the future of the internet with strong foundations. Participants noted that the existing multistakeholder system for internet governance and standards development provides a solid base for future-facing discussions.

Collective and collaborative governance by a multistakeholder community has been a defining success of the internet. Governments, industry, civil society and the technical community come together in global forums including:

- > the UN Internet Governance Forum (IGF), which hosts a global multistakeholder policy dialogue related to internet issues;
- > the Internet Engineering Task Force (IETF) and World Wide Web Consortium (W3C), which evolve the internet's open standards; and
- > the Internet Corporation for Assigned Names and Numbers (ICANN), which manages the internet's single naming and addressing system.

The UN IGF provides a unique, global platform that links all stakeholders of the internet. It has the potential to be more effective through its ongoing reform, including proposals for an IGF Plus. Standards bodies like the IETF or the W3C provide a critical function in driving innovation and consensus around internet protocols. They could, however, be more inclusive of a wider set of perspectives beyond the private sector and

the technical community. ICANN, in its role of maintaining a multistakeholder community, relies on community participation for its continued effectiveness. This includes the important role that continued government involvement can play with respect to public policy issues.

As a first step, participants acknowledged their roles - as leading open society stakeholders - in reaffirming the authority and expertise of these multistakeholder forums and the need to therefore work within these organisations to strengthen them. Participants underlined that open society stakeholders should support the upskilling of new stakeholders and foster greater coordination, including through information sharing and convening of like-minded communities centred on open society values.

Forum stakeholders argued that to meet the challenges of the next decade, the multistakeholder community should reject proposals to bring the internet under restrictive intergovernmental control. Instead, they should coordinate a more comprehensive and positive approach for the future of the global internet, underpinned by values of:

- > openness, interoperability, reliability and security;
- > promotion of internet access and inclusivity of governance; and
- > respect for freedom and the rule of law.

# Key Questions and Future Challenges



## The Future Tech Forum considered the emerging challenges and opportunities of the digital age.

Participants were encouraged to consider, in their respective roles as national governments, tech leaders, and non-governmental organisations, and as a multi stakeholder community, the steps needed to move us closer towards a digital future that supports open societies. These questions remain relevant as we take forward further international dialogue and collaboration on the governance of technology.

- > What does it mean to embed open society and human rights principles into the future development of technology?
- > Are current governance models capable of tackling the shared challenges and realising the potential benefits that come with future technologies? If not, what more - or what new - is needed?
- > What collective infrastructure is needed to enable the sharing of knowledge, ideas and materials among partners, as part of producing solutions to global challenges?
- > What are the ethical, legal and social considerations surrounding the development of new technologies, and how can governance frameworks adapt to address any concerns?

Across the two days of the Forum, **representatives from national governments** discussed their role as both enablers of the future digital transformation, and gatekeepers in ensuring the right rules are in place and adhered to with future tech. A number of major challenges were identified by, and for, government stakeholders:

- > What do we mean when national governments, individually and collectively, talk about a future tech framework that upholds our shared principles? What are those principles, and how do they set us apart from strategic adversaries?
- > What is the role of multilateral organisations in shaping the future direction of tech governance, working with and on behalf of national governments?
- > How do we collectively ensure an appropriate and effective role for developing nations, and their citizens, in shaping future international tech governance?
- > How do we equip governments, and their executive agencies, with the necessary market knowledge and technical skills to regulate future technologies in an agile and effective manner?

**Non-government representatives** played an equally crucial role during the first day of the Forum, helping to set the agenda in terms of the future direction of technology and its governance. Similar to government representatives, the event posed some important challenges for industry, civil society and academia:

- > How do we ensure that non-government stakeholders play a key role in designing, developing and implementing international tech frameworks?
- > How do we establish trust between the designers of new technology and the public as a whole? What are the measures that will make a difference in building and maintaining this trust?
- > What are the future technological trends, in addition to those debated at the Future Tech Forum, which are likely to impact on our lives and require appropriate governance? How do we spot and get ahead of these developments?
- > Do we have the right systems in place to enable collaboration between industry, civil society, academia and other stakeholders, in discussing the challenges and opportunities presented by new technologies?



The Future Tech Forum was the start of a conversation that we need to develop and build on. The event underscored the deep commitment of governments, the private sector, and civil society, to set a positive vision for our digital future, and to work together to deliver it. We are committed to building on this momentum and to turning the ideas of the Future Tech Forum into concrete action.

