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INTERNET GOVERNANCE IN INTERNATIONAL GENEVA

by Michael Kende

THE
GRADUATE
INSTITUTE
GENEVA

CENTRE
FOR TRADE
AND
ECONOMIC
INTEGRATION

INTERNET GOVERNANCE IN INTERNATIONAL GENEVA

by Michael Kende

A study conducted by



FOREWORD



The mission of the *Fondation pour Genève* is to support International Geneva and increase its influence. This involves defending multilateralism and strengthening the presence in our region of institutions of fundamental importance to international cooperation, some of which have been here for over a century. They all make a contribution to improve world governance, each working in its own field.

The role of our Foundation is to identify new directions, which is the purpose of this study on the governance of the Internet. Technical developments are now creating radical upheaval in the way the world is organised, shifting boundaries and upsetting established equilibriums. In response, we must create a new way of thinking about international relations.

We all have a confused feeling that the Internet is a space of freedom while at the same time creating a threat to our fundamental rights. It is both an opportunity for and a danger to democracy, not only a driver of economic growth but also a contributor to market concentration and the creation of monopolies.

The Internet has been in existence for barely a generation, yet it is now used by billions of people and is much more than a decentralised IT network. It is the victim of its own success, a success created precisely because it is a space and an operation without central governance, and blown about in all directions. The general principles of international law do not appear to have taken hold there. Above all, apart from a few shared technical protocols, it seems that is impossible to fully understand the Internet.

Commercial interests are powerful and the private sector naturally has little inclination to see new regulation, while governments cannot agree on what strategy should be adopted and may even be reluctant to get involved. Scepticism about multilateralism is part of today's political climate. Nevertheless, this seems to be a time when Switzerland should take the initiative, as it has done with great success in many other areas, and contribute to the establishment of Internet governance that is worthy of the name.

By initiating this study, the Foundation is laying the foundation stone. It is also calling on all the key players described in the report – many of whom already have strong ties to Geneva – to work together to draw up a blueprint for how to improve Internet governance. If the successes of the Internet are to be confirmed, a number of challenges will need to be faced, and efforts made to establish the confidence that is currently lacking.

This report would not have seen the light of day without the support of the Graduate Institute of International and Development Studies. We asked Michael Kende, Senior Fellow at the Center for Trade and Economic Integration and Visiting Lecturer at the Graduate Institute, to undertake this review of the current state of play. With his PhD from MIT and his wide-ranging professional experience of the Internet, he could not have been in a better position to shine a light on future directions. We are very grateful to him for his work.

Ivan Pictet

President of the
Fondation pour Genève

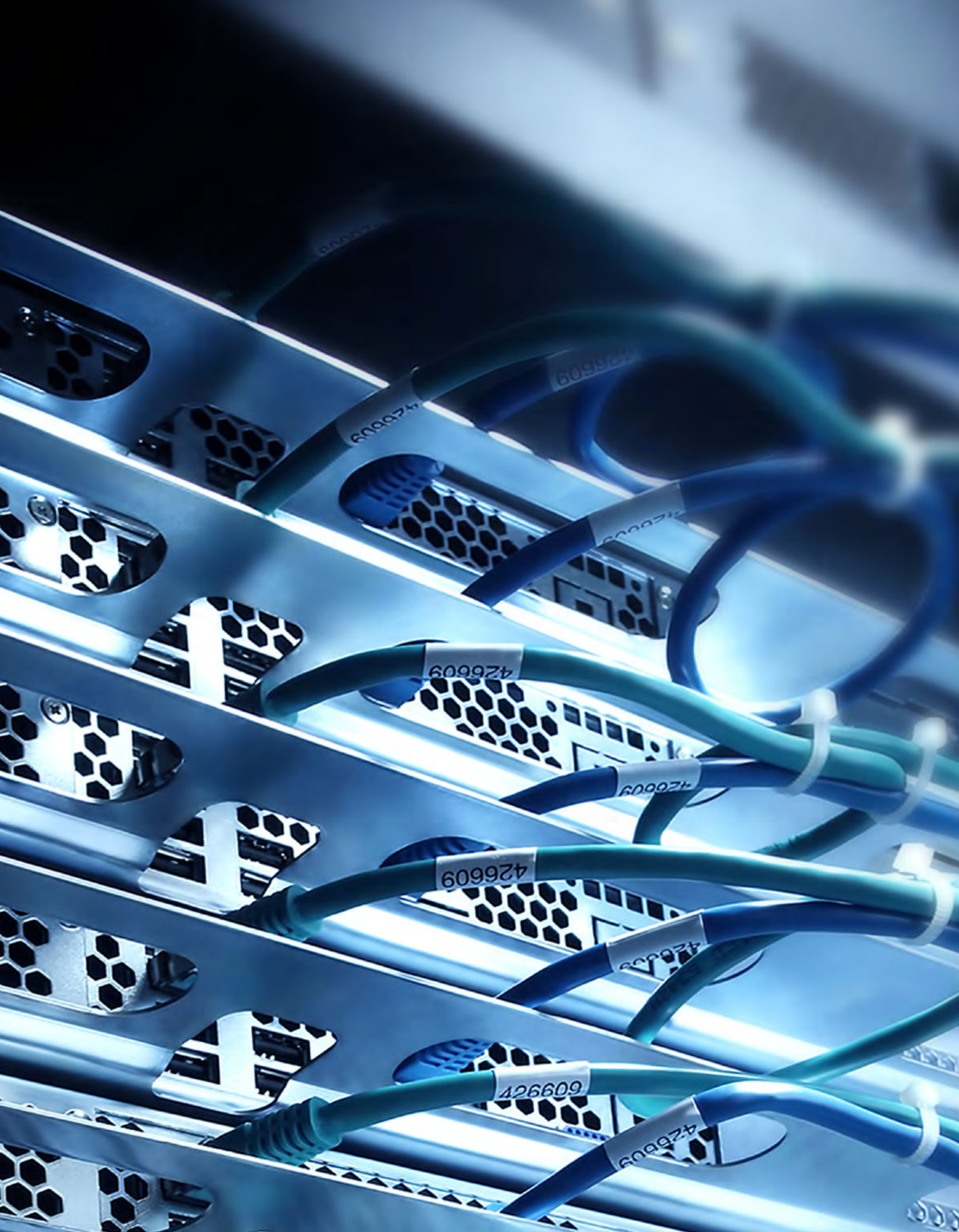


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Fondation pour Genève



1 INTRODUCTION



Michael Kende is a Senior Fellow at the Center for Trade and Economic Integration and Visiting Lecturer at the Graduate Institute of International and Development Studies, Geneva, and also a Digital Development Specialist for the World Bank Group. Previously, he served as Chief Economist for the Internet Society, was a partner at Analysys Mason Consulting, and Director of Internet Policy Analysis at the US Federal Communications Commission. He has a Ph.D. in Economics from MIT, and was an Assistant Professor at INSEAD business school.

The Internet has continued to grow in depth and breadth in personal lives, economies and interactions with government. While the benefits of the Internet continue to grow, there is still a persistent digital divide between countries, and increased concerns regarding cybersecurity and online rights. As a result, governance of the Internet has grown in importance, to address these existing challenges and anticipate new ones.¹ Internet governance requires cooperation and coordination between a variety of stakeholders, and thus is well suited to the strengths of International Geneva.

International Geneva is a historical and ongoing hub for Internet governance. Internet issues are increasingly important to the international organizations present in Geneva, both for developing policy and applying digital solutions to their own work. Geneva has significant relevant expertise within the United Nations agencies, Permanent Missions, non-governmental organizations (NGOs), and academic and research institutes that contribute to and influence policy discussions. Three significant clusters of activity in Geneva focus on using Digital for Development, promoting Digital Trust, and establishing Digital Rights.

As evidence of its prominent role, a number of Internet initiatives have been based in Geneva in recent years. In addition, stakeholders in International Geneva are able to convene international audiences for an increasing number of Internet-related conferences. Looking forward, a particular focus of new initiatives in Geneva relates to future issues, such as questions about artificial intelligence ethics and policy. As a neutral location, Geneva can help to bridge divides between countries and blocs when interests are fragmented.

This report will contain an 'état des lieux' regarding the role International Geneva plays as a hub for Internet governance across a large range of issues. The report details the history of how Geneva developed its role, it covers the present range of activities, including how the Internet governance clusters have helped address the COVID-19 crisis, and looks forward to future issues that are emerging. The report also identifies gaps and proposes recommendations to strengthen International Geneva's position going forward.

¹ We take a broad definition of Internet governance – covering a range of new and emerging digital issues not all directly tied to the Internet, such as artificial intelligence.

2 HISTORY OF INTERNET GOVERNANCE

Internet governance is the development and application by Governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programmes that shape the evolution and use of the Internet.²

The UN Working Group on Internet Governance, Report 2005

As the Internet took its present commercial form in the 1990s, its governance was not yet a significant policy issue.³ Two forms of Internet governance soon became relevant. First, governance of the Internet to develop and operate the Internet – this form of Internet governance is unavoidable. Second, governance on the Internet to address the activity on the Internet – this form of Internet governance arose more slowly, but was inevitable. Both forms emerged on the world stage in Geneva in 2003, culminating in the above definition adopted in 2005.

First, the unavoidable – governance of the Internet. The Internet is famously a ‘network of networks’ that must be internetworked, giving the Internet its name. All of the individual networks must share and recognize common resources in order to connect together. This requires governance. A key resource is the Domain Name System (DNS) – which ensures that domain names such as www.fondationpourgeneve.ch are uniquely assigned and can be located by everyone on the Internet, wherever they are.⁴

As the initiator and historical home of the Internet, the United States government established oversight over the DNS. As the Internet grew in usage and began to globalize, the government created the non-profit Internet Corporation for Assigned Names and Numbers (ICANN) to operate the DNS. ICANN was setup as a multi-stakeholder entity with input from governments, the technical community, business and non-commercial users, and civil society. However, the US maintained an oversight role, which it slowly relinquished until it turned over final control in 2016. Before then, however, its role was a point of sensitivity.

Another element of Internet governance was inevitable – governance on the Internet, addressing online activity and actions. Although the US government sponsored the research that led to the Internet, it refrained from regulating the outcome, leaving it largely in commercial hands in the 1990s. While this laissez-faire approach helped the Internet grow and flourish, it was not sustainable as an increasing amount of offline life moved online, and as countries began to go online with different regulations, cultures, and norms.

² “Report of the Working Group on Internet Governance”, Château de Bossey, June 2005. <https://www.wgig.org/docs/WGIGREPORT.pdf>

³ Note that in spite of sharing the same root, ‘governance’ does not necessarily involve governments. The Institute on Governance provides the following general definition: “Governance is how society or groups within it, organize to make decisions.” <https://iog.ca/what-is-governance/>.

⁴ Another form of governance of the Internet that is critical for Internetworking is setting the standards to ensure that networks are able to interconnect and that services are able to communicate. Geneva hosts a main office of the Internet Society, the home for the entity that supports the Internet Engineering Task Force (IETF), which develops the main Internet standards; the International Organization for Standardization (ISO), which develops international standards including those relating to the Internet; and the ITU, which develops standards as described below. However, in this report we focus on governance related to policy issues, rather than development of technical standards.

Internet governance was first officially raised at the international level during the World Summit on Information Society (WSIS) convened by the International Telecommunication Union (ITU) under the patronage of then UN Secretary-General Kofi Annan. The first phase was held in Geneva in 2003, and the second phase in Tunis in 2005 (see timeline below). It was convened to address the growing digital divide between countries with respect to access to Information and Communication Technologies (ICTs), including notably the Internet.

Issues of Internet governance began to emerge during the preparations. At the beginning, the differences focused on the role of the US government in the governance of the Internet. A number of governments objected to the DNS - a crucial part of the Internet - being governed by a private entity, ICANN, with oversight by the US government, and instead pushed for increased international government involvement. However, the debate soon expanded to the broader issue of the roles and responsibilities of different stakeholders.

In order to resolve the issues raised, Secretary-General Annan created the Working Group on Internet Governance (WGIG) in between the two phases of the WSIS. During the second phase, countries were not able to reach a conclusion on how to address governance, demonstrating a fragmentation of views that has persisted through today. This left the status quo in terms of the role of ICANN, while also establishing a venue for future discussions, the annual Internet Governance Forum (IGF), whose secretariat is in Geneva (and which was held in Geneva in 2017).

The WGIG definition incorporated a multi-stakeholder model of Internet governance in which stakeholders participate together in policy discussions and development, taking different roles depending on the issue and forum. The multi-stakeholder model was also introduced at the WSIS, unusually for such a multilateral meeting, enabling participation from experts from a variety of fields. It was then memorialized in the above WGIG definition in effect through today.

*The original idea of the web was that it should be a collaborative space where you can communicate through sharing information.*⁵

Sir Tim Berners-Lee, inventor of the World Wide Web

While Sir Tim Berners-Lee is describing the World Wide Web (WWW) as a collaborative space in which to share information, it is also a fitting description of International Geneva, where he invented the Web in 1989. He was at the European Organization for Nuclear Research (CERN), and noticed that scientists working with CERN had information to share, but no easy way to make it available. The resulting Web fuelled the rapid growth of the Internet from an academic and research network into the global network as we know it today. This growth also helped create the policy vacuum that began to be filled in Geneva.

The multi-stakeholder model of Internet governance that emerged from the WSIS means that no one organization owns or is in charge of the Internet. Beginning with hosting the WSIS, International Geneva has had a central role in Internet governance. In particular, Geneva is host to three clusters that focus on a number of the most pressing international issues relating to Internet governance.

⁵ <https://www.standard.co.uk/tech/who-is-tim-berners-lee-world-wide-web-www-inventor-net-worth-facts-quotes-a4088781.html>

3 INTERNET GOVERNANCE CLUSTERS IN INTERNATIONAL GENEVA

*In our interconnected world, the human family will not enjoy development without security, it will not enjoy security without development, and it will not enjoy either without respect for human rights.*⁶

Kofi Annan, former Secretary-General, United Nations, 2005

The quote from Secretary-General Kofi Annan highlights the three founding pillars of the UN: Peace and Security, Human Rights, and Development.⁷ These UN pillars all are established in International Geneva. The pillars now include online issues, as can be seen in a mapping of Internet governance issues prepared by the Geneva Internet Platform (see Annex A), and in their online forms, they represent the foundation of the Internet governance clusters in International Geneva.

In particular, these pillars correspond well with many of the key Internet governance issues, some of which have been present for many years, and others of which are new or emerging. These issues include closing the digital divide and helping to develop a digital economy in all countries. At the same time, as online activities encompass an increasing scope, it is important to ensure cybersecurity and trust in online activities. It is also important to ensure that human rights protections apply equally to these online activities. International Geneva is a natural home to address these issues.

Digital for Development

As noted above, the digital divide drove the emergence of Internet governance in Geneva, beginning with the World Summit on Information Society (WSIS) in 2003. While it is important to bring people online, it is also important to develop a digital economy to provide opportunities for all to join the global marketplace. Geneva has been at the forefront of using digital for development, including developing e-commerce opportunities, the rules for the resulting digital trade, and planning the future of work in a global digital world.

Digital Trust

As more activity moved online, the vulnerability of online activities increasingly became apparent, and cybersecurity has become a vital issue. Cybersecurity issues are being addressed by a number of organisations across Geneva and the Lake Geneva region. More broadly, initiatives are not just trying to prevent negative harms, but have begun to promote digital trust, to develop online confidence to increase usage of online services and help attract new users.

Digital Rights

Human rights issues are firmly centred in International Geneva, encompassing humanitarian issues as well. A significant amount of work has focused on how to apply human rights in the online sphere, including privacy and freedom of expression among others. In addition, work has been undertaken

⁶ <https://www.un.org/sg/en/content/sg/statement/2018-09-26/secretary-generals-remarks-high-level-event-marking-70th-anniversary>

⁷ <https://www.un.org/un70/en/content/videos/three-pillars/index.html>

to determine how to leverage technology to help ensure human rights and deliver humanitarian aid, while also mitigating the downsides of technology. Geneva is the natural home for this work to take place.

International Geneva has significant strengths that match up well with Internet Governance. In light of worries about the Internet ‘fragmenting’ across blocs of countries, a neutral place is needed to address issues, for which Switzerland is renowned. Many of the international actors are already based in Geneva, and others visit for annual events and key meetings. Finally, Geneva is the ideal location to develop ‘soft laws’ and exercise ‘soft power’ with regards to international Internet issues, and to apply existing international laws or possibly develop new ones, according to the needs and goals of countries.

International Geneva also has the elements to help support the clusters. Overall, what is required is the ability to develop policy ideas, to discuss them, and diffuse them. Geneva and the surrounding region have world-class universities and research institutes to help to incubate ideas, many venues in which to discuss them formally and informally, capacity building institutions to educate participants in relevant topics, and the Permanent Missions of almost all the United Nations member states to participate and interact with their capitals.

The strengths of International Geneva have been affirmed with the choice of a number of new initiatives and annual conferences to base themselves in Geneva, a significant vote of confidence in the future of Geneva as a hub for Internet governance. New issues that are arising, including the impact of social media on democracy, the impact of artificial intelligence, and financial inclusion in developing countries are all being addressed in Geneva.

However, there are also several weaknesses that hinder Geneva from reaching its full potential, and other locations where Internet governance issues are being addressed. After the survey of current and future activities, the report will identify these issues, and make recommendations to fill gaps in order to help Geneva develop further as a leading hub in the governance of the Internet.

3.1 Digital for Development

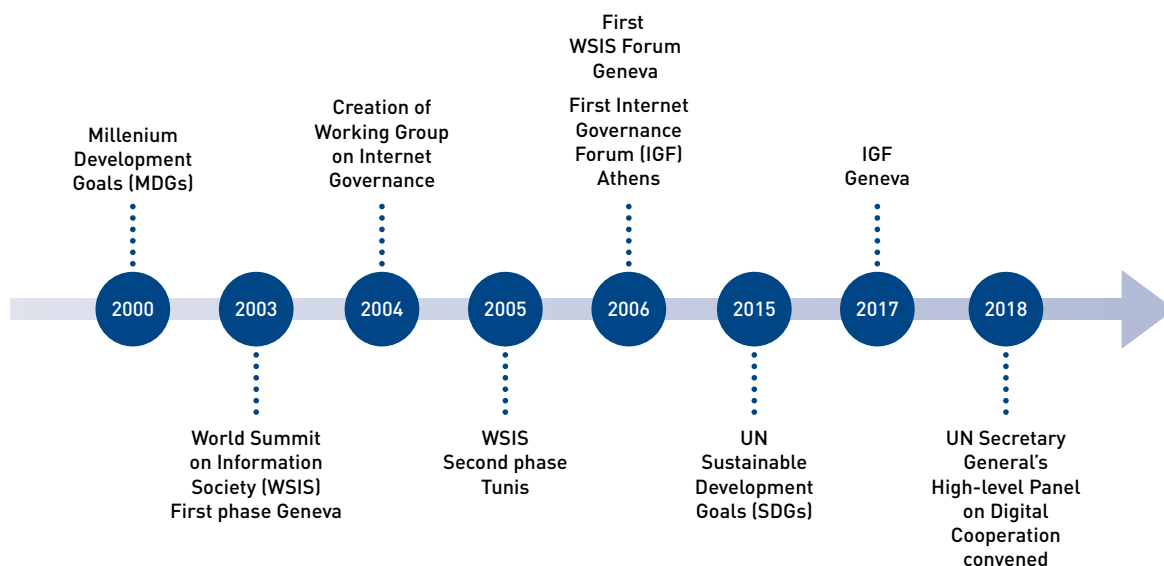
— *The 2030 Agenda for Sustainable Development recognizes the great potential of global connectivity to spur human progress. It challenges us to ensure universal and affordable Internet access for all.*⁸

António Guterres, Secretary-General, United Nations

Digital for development activities have long taken two interconnected tracks. First, closing the digital divide with increased Internet availability and inclusion has been recognized as a priority for many years. However, the second track recognizes that Internet access, and more generally digital technology, is a means to an end for achieving broader development goals. This was recognized in the implementation of the Millennium Development Goals (MDGs) and was carried over into the current implementation of the Sustainable Development Goals (SDGs), as noted by Secretary-General Guterres above.

⁸ <https://www.itu.int/en/sustainable-world/Pages/report-hlpf-2017.aspx>

■ Figure 1 – The below timeline highlights the role of the UN development goals in digital for development since 2000.



The MDGs were adopted in 2000 and targeted to 2015. One of the targets related to making available the benefits of new technologies, especially Information and Communications Technologies (ICTs). However, it was recognized that the achievement of this target would help to achieve the other targets. Thus, when the United Nations General Assembly agreed to convene the WSIS, it gave the leading role to the International Telecommunication Union (ITU) to promote ICTs to help achieve the MDGs.

One outcome of the WSIS was the Geneva Action Plan, with a number of Action Lines to be implemented over the years. The WSIS Forum started in 2006 as a yearly event hosted by the ITU in Geneva to track the Action Lines, co-organized with the United Nations Development Programme (UNDP), the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the United Nations Conference on Trade and Development (UNCTAD). A stocktaking database was started to track efforts, and the WSIS + 10 High-Level Event in 2014 summarized the outcomes of the previous 10 years and developed a future vision. The Geneva-based UN Commission on Science and Technology for Development (CSTD), serviced by UNCTAD, reviewed progress and submitted its report to the UN General Assembly (UNGA).

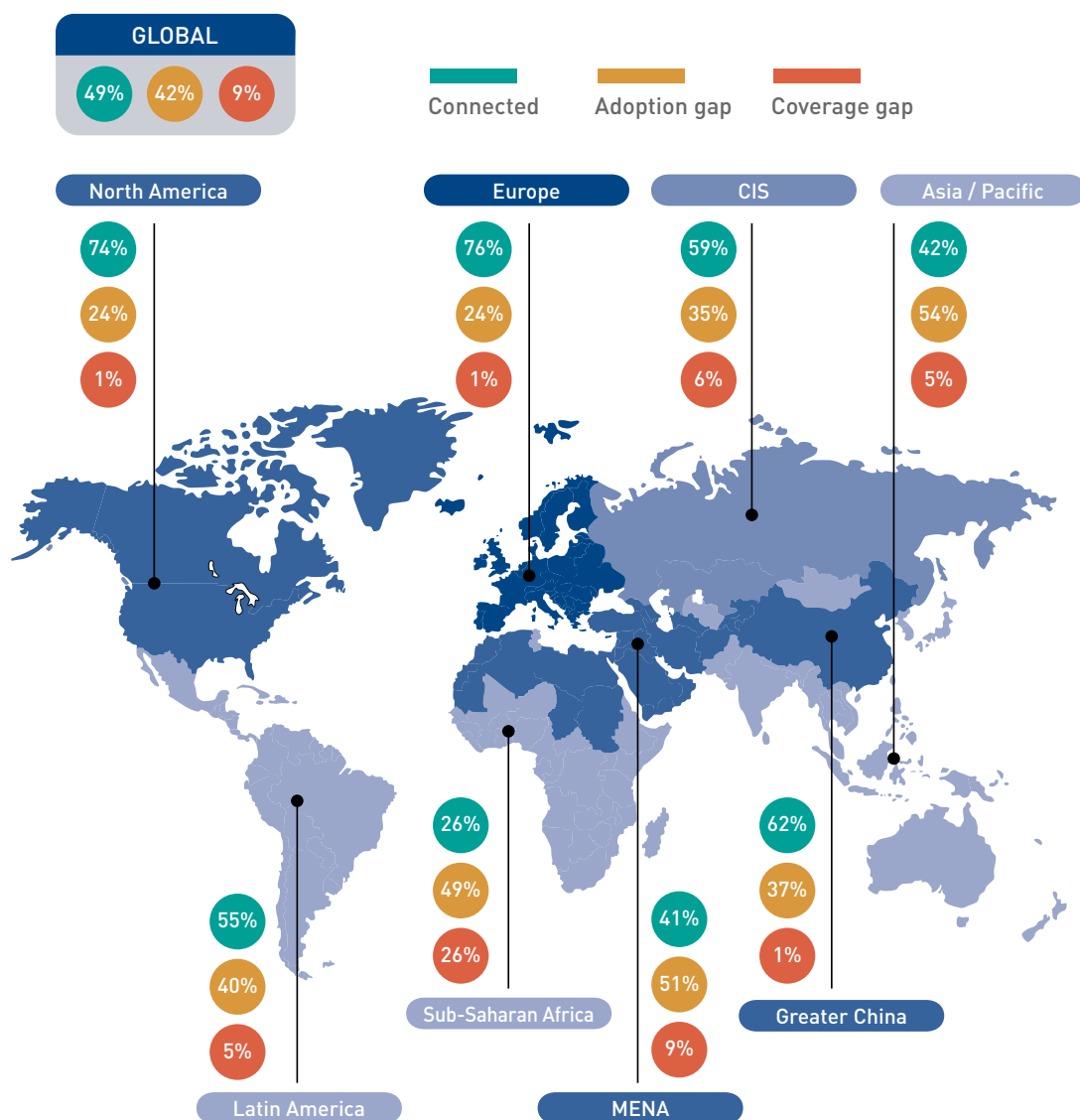
In 2015 when the UN Sustainable Development Goals (SDGs) were adopted, digital technology maintained the central role it had in achieving the MDGs. One SDG aims to increase coverage and adoption of the Internet, but it is well understood that the Internet would help to achieve the other goals. When the UNGA reviewed the first ten years since WSIS it called on stakeholders to integrate ICTs into their implementation of the SDGs, and the ITU continues to play a central role in helping to achieve the SDGs using ICTs.

It has long been recognized that that access to connectivity is a necessary first step in closing the digital divide. When the MDGs were announced and planning for the WSIS started, mobile broadband was still only on the horizon and the modern smartphone did not exist. Instead, the expected form of access would be using fixed networks, which had long waiting lists in most of the developing world, and would need to use expensive personal computers. Hence, a significant area of focus was increasing the infrastructure needed to close the digital divide.

However, the widespread deployment of mobile telephony, which led to mobile broadband, changed the development picture significantly, as shown in Figure 2. Today 91% of the global population is covered by mobile broadband networks, which is a remarkable shift from the days of waiting endlessly for fixed connections to be deployed. However, only 49% of the world population have subscribed to mobile broadband. This highlights two gaps – first, a coverage gap in which 9% of the population still cannot receive a mobile broadband signal. Second, and just as importantly, an adoption gap, in which 42% of the population could go online, but have chosen not to for cost or other demand-side reasons.

As shown in the figure, behind the global averages there are significant regional differences. The adoption gap is as high as 54% in Asia Pacific, reflecting the fact that the coverage gap there is very low, but the majority of the population has not yet adopted mobile broadband. The highest coverage gap is in Sub-Saharan Africa, at 26%, while other regions are as low as 1%, which is nearly universal coverage. Finally, the level of mobile broadband connections varies between 26% in Sub-Saharan Africa and 76% in Europe.

■ Figure 2 – Mobile Broadband Gaps (GSMA, The Mobile Economy 2020)



As a result, while it is still important to close the coverage gap to ensure that anyone can go online anywhere, there is a significant shift in digital development toward closing the adoption gap, given that it is near or over half the population in a number of regions. This requires increasing demand by lowering the cost of access and devices and increasing the relevance of the Internet for people's lives. This shift has been reflected in the activities in Geneva toward closing the digital divide. In particular, the focus on developing the digital economy of countries provides incentives to go online to conduct economic activities, to both buy and sell products and services.

Geneva is well-placed to facilitate dialogues on digital matters, owing to the presence of UN agencies, NGOs, other international organizations such as ICRC, WEF, and other stakeholders. Geneva therefore offers a neutral platform for discussion of issues of global significance. As a result, Geneva fosters local partnerships, and creates convening power for events and dialogues.

ITU – as the specialized UN agency for ICTs with its commitment to bringing universal, equitable and meaningful connectivity for all – is proud to be an integral part of the digital conversation that Geneva fosters.⁹

Doreen Bogdan-Martin, Director of the Telecommunication Development Bureau of the ITU

International Telecommunication Union (ITU)



www.itu.int

- **Formation:** 1865
- **Mission:** To promote, facilitate and foster affordable and universal access to telecommunication/ information and communication technology networks, services and applications and their use for social, economic and environmentally sustainable growth and development
- **Secretary-General:** Houlin Zhao (China)
- **Staff:** ~680 (2019)
- **Permanent Staff in Geneva:** 615 (2019)
- **Budget:** 167'478'000 CHF (2020)
- **Top contributors:** United States (9,5 million CHF) and Japan (9,5 million CHF)
- **Contribution of Switzerland:** 3,2 million CHF



⁹ Interview with Doreen Bogdan-Martin, March 11, 2020

The ITU is the oldest international agency now in Geneva, starting in 1865 first to ensure international cooperation for telegraph services, then telephony. It is the UN specialized agency associated with connectivity, with the mission to connect all the world's people, wherever they live and whatever their means. As such, the ITU has taken a leading role to increase Internet access, dating back to its leading role in the WSIS.

The ITU is divided in three sectors, each of which has a part to play in meeting the goal of increasing availability and adoption of the Internet.

- ITU Telecommunication Standardization Sector (ITU-T). This sector of the ITU develops standards, including those used on the Internet such as for video streaming, voice over IP, and cybersecurity. The standards are developed as Recommendations, which can be voluntarily used, or governments can implement them into national law. These standards help to ensure global availability and usability of Internet content and services.
- ITU Radiocommunications Sector (ITU-R). This sector is responsible for international management of radio frequencies, including for mobile broadband communications, as well as Wi-Fi and satellite services. The spectrum underlies the growth of mobile broadband through the third generation (3G) and 4G, with 5G emerging.
- ITU Telecommunications Development Sector (ITU-D). This sector is responsible for bridging the digital divide, as well as a wide range of governance activities including supporting regulatory frameworks for development, capacity building, and the gathering of ICT statistics from member states.

The statistics gathered by the ITU-D show progress towards digital inclusion goals, and the regulations it tracks help guide countries to fill their gaps, but progress is slower than desired. To further development of regulatory frameworks, the ITU-D holds an annual Global Symposium for Regulators (GSR), which was planned to be held in Geneva in September 2020, but will now be virtual in light of the COVID-19 pandemic. In addition, since 2010, a Council Working Group on International Internet Related Public Policy Issues (CWG-Internet) has been working on policy issues, in consultation with all stakeholders.

The role of the ITU has not been without contention with regards to Internet governance. Throughout the years, some member states have pushed the ITU to have a stronger role in governance issues, including control of the Domain Name System (DNS). On the part of some countries this represents a statist view that key international resources should be subject to multilateral control. Other countries have pushed for more of Internet governance to move to a multilateral venue, whether the ITU or a new one, to make it easier, particularly for developing countries, to have more input. A further group of countries, including the US, have sought to maintain the status quo, so far successfully.

At the same time, while the ITU is a multilateral organization representing its member states, it has hundreds of sector members, including other international organizations, non-profits, regulators, telecom operators, universities, and Internet companies. These members can participate in study groups on emerging issues and in conferences and debates, and can participate in delegations with their governments, but do not have a vote on any issues. Among their members today include Internet Corporation for Assigned Names and Numbers (ICANN), all of the regional Internet registries that work with ICANN on administering Internet resources, and the Internet Society.

Further, the ITU has entered into a number of partnerships to address governance issues. The Broadband Commission for Sustainable Development was developed by ITU with UNESCO, to promote broadband in developing countries and underserved communities. The Commission is composed of industry leaders, heads of international agencies and NGOs, and other senior policy-makers and government officials. To help promote broadband it has set advocacy targets for broadband penetration and digital inclusion, publishes an annual State of Broadband report, and focuses on thematic areas such as digital health and education. Other partnerships, with the World Health Organisation (WHO), UNCTAD, and others, are described below.

Two non-governmental organizations in Geneva – the Internet Society (ISOC) and the World Economic Forum (WEF) – have also had particularly prominent roles in promoting Internet development and adoption. The Internet Society – with a main office in Geneva – has long promoted increased infrastructure across developing countries, including Internet Exchange Points and community access networks. The WEF, with its headquarters in Geneva, helps to foster public-private cooperation. It had an Internet for All initiative that brought together the private sector, international organizations, other non-profits and academia to identify and help implement practical ways to increase Internet adoption.

Digital Economy

While it is critical to close the digital divide so that everyone is able to go online, it is also important for countries to develop their digital economies. This provides economic opportunities for citizens, and enables companies to join the global economy. E-commerce is a key part of the digital economy, not just between consumers and retailers, but also between companies. As e-commerce grows within countries globally, the rules for digital trade between countries must be established. Geneva is a hub for many of the international efforts on this road to a global, inclusive, digital economy.

The Geneva-based United Nations Conference on Trade and Development (UNCTAD) has been a global leader in the policy development of e-commerce, with a broad and inclusive approach. It began with reports on e-commerce for developing countries, and in 2016 it hosted its first eCommerce Week in Geneva. In 2019, the eCommerce Week convened 1,500 participants from 135 countries and across sectors, to discuss opportunities and challenges of the digital economy. It now also coincides with the Intergovernmental Group of Experts on E-commerce and Digital Economy, convened to help foster domestic and cross-border e-commerce in developing countries.¹⁰

In addition, UNCTAD has been gathering statistics on e-commerce, tracking relevant cyberlaws in each country, and building capacity in countries. It also conducts eTrade Readiness Assessments of Least Developed Countries (LDCs) to review e-commerce in the countries, and recommend policy measures. Finally, UNCTAD has created eTrade for All, a partnership with 30 international organisations in Geneva and beyond, to help developing countries access technical and financial assistance in areas of relevant to e-commerce.

UNCTAD has also focused work on foreign investment in the digital sector, to provide recommendations to increase the investments needed to build the digital economy of countries. This work has also been taken up by WEF in a new stream of work to help promote and facilitate investment in the digital economy. In addition, the International Trade Centre (ITC), also in Geneva, has been complementing the work of UNCTAD on e-commerce, helping small companies get an international online presence with its ecomConnect programme and online platform.

¹⁰ In 2020, UNCTAD had to move the E-Commerce Week online due to the pandemic, with an eWeek featuring 15 webinars.

As countries develop their digital economies, digital trade between the countries emerges as an issue, and the World Trade Organization (WTO), based in the Geneva, is the multilateral home for global trade issues. The WTO began to address e-commerce in 1998 at its Second Ministerial Conference in Geneva, starting a work programme that has lasted through today. Currently, a number of countries have chosen to start negotiations on e-commerce in Geneva under the Joint Statement Initiative (JSI).

The digital economy clearly impacts employment and workers, and the International Labour Organization (ILO) has a Future of Work initiative that includes questions regarding the impact of digital platforms and future technologies. Digital labour platforms enable anyone with Internet access to earn money through micro-tasks, and the ILO has been studying this to understand the labour impact. In addition, the ILO has been focused on the importance of decent work in the context of the SDGs, as seen below.

Given the size and importance of e-commerce, a number of non-governmental organisations in Geneva are addressing aspects. CUTS International, a non-profit NGO, has an office in Geneva and has been assisting negotiators from developing countries in the current digital trade discussions. The International Institute on Sustainable Development, a Canadian non-profit think tank with an office in Geneva, has been releasing studies on digital trade issues. WEF also has a digital trade program, helping to involve the private sector in the trade issues.

Finally, there are a number of large annual events focused on aspects of digital for development. As noted, Geneva hosted the first phase of the WSIS in 2003; the ITU has since hosted the annual WSIS Forum, which in 2019 had 3000 participants. The ITU also began a series of annual events on AI for Global Good, which had 2800 participants in 2019. The UNCTAD eCommerce Week started in 2016 and hosted 1,500 participants in the last version. The WTO Public Forum includes workshops on digital trade issues, with 1,500 participants last year. Finally, the Internet Society celebrated its 20th anniversary with a Global INET forum in Geneva in 2012.

SDGs

*The SDGs are the global roadmap to development, peace and well-being, bringing together actors who have never worked together before from the United Nations, NGOs, business, media, and academia. The SDGs are the most extraordinary and widely appropriated tool to address the massive problems the world is faced with today, and tech is a strong and indispensable enabler for that.*¹¹

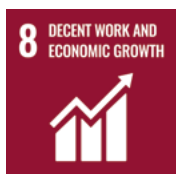
Michael Møller, former Under-Secretary-General of the United Nations

Technology is critical to help achieve many, if not all, of the SDGs. A number of partnerships have been formed in Geneva to help achieve the SDGs, including a number below focused around connectivity and digital solutions.

¹¹ Interview with Michael Møller – March 4, 2020.



Target 9.C is to “Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020.” This is directly related to the ITU work on the digital divide, covered above, along with the work of the Broadband Commission.



SDG Goal 8 is to “Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.” Work on the digital economy, as well as the future of work, as described above, help to achieve this goal.



Digital Health for Africa is a partnership between the ITU and WHO to promote the use of ICTs in the health sector and helps provide digital skills to the health care sector. Another initiative between the two organisations, BeHe@lthy, BeMobile, uses mobile phones to help people manage certain diseases.



The Digital Skills for Jobs Campaign between the ITU and the ILO aims to train five million youth for new jobs requiring digital skills in the digital economy.



EQUALS is a partnership between the ITU, UN Women, the ITC and others to close the gender digital divide and empower women and girls. Its activities include developing a platform to leverage current efforts, and gathering data to measure progress.



The United for Smart Sustainable Cities (U4SSC) initiative was launched by the ITU and the UN Economic Commission for Europe (UNECE), to use ICTs to help the transition to smart cities that are sustainable.

SDG Lab and Niger 2.0



Niger 2.0 Digital Gateway to Sustainable Development (Source: ITU, 2020)

The SDG Lab was created to use the UN convening power to leverage the Geneva ecosystem to help achieve the SDGs, by helping to connect countries to the right people, or different communities with each other. One of the earliest initiatives was to help the Government of Niger quickly and effectively leverage expertise in Geneva to leap-frog development through the use of technology.

Nadia Isler, Director, SDG Lab, UNOG

The SDG Lab is a multi-stakeholder initiative led by the UN Office in Geneva (UNOG) to contribute to the implementation of the SDGs by leveraging the use of the Geneva ecosystem and increasing cross-fertilisation across the ecosystem. The Lab uses the UN convening power and helps countries access the expertise in Geneva and create connections between organisations and communities.

Niger developed a plan to use technology to create Niger 2.0 to improve Internet access in remote villages and implement an effective and efficient e-government program to help achieve the SDGs. Minister Ibrahima Guimba Saidou visited Geneva in March 2018 for four days, and

the SDG Lab arranged bilateral meetings and a workshop in Geneva with a broad cross-sector of International Geneva. The result was a number of partnerships, with ITU, WHO, UNCTAD and others to harness expertise and secure funding for establishing smart villages in Niger.

This case study highlights the role of the SDGs to focus efforts to use technology, and the expertise and capabilities available when connections are made within International Geneva. One recommendation below is to further enhance the visibility of all parts of Digital Geneva to continue to help address issues with practical and concrete solutions.

3.2 Digital Trust

We suddenly find ourselves living in a world where nothing seems off limits to nation-state attacks. Conflicts between nations are no longer confined to the ground, sea and air, as cyberspace has become a potential new and global battleground. There are increasing risks of governments attempting to exploit or even weaponize software to achieve national security objectives, and governmental investments in cyber offense are continuing to grow. [...]

The time has come to call on the world's governments to come together, affirm international cybersecurity norms that have emerged in recent years, adopt new and binding rules and get to work implementing them.

In short, the time has come for governments to adopt a Digital Geneva Convention to protect civilians on the Internet.¹²

Brad Smith, President, Microsoft Corporation

Three of the turning points of International Geneva were inspired by war with the hope of peace and security. The International Committee of the Red Cross (ICRC) was founded in Geneva in 1863 following the experiences of its founder at the battle of Solferino in northern Italy. This was the beginning of International Geneva. Then, following World War I, the League of Nations was located in Geneva in 1919, and following World War II, the United Nations second headquarters was located in Geneva in 1945, along with a number of agency headquarters or offices.

More recently, Geneva has become a base for the development of digital trust, building on the activities of existing organizations, but also welcoming a number of new organizations. The impact of a lack of cybersecurity is costly in terms of prevention, recovery, and mitigation, while cyberattacks raise the risks of retaliation and escalation among state and non-state actors. Further, the resulting low levels of digital trust can hinder efforts to close the digital divide, and also limit the willingness of those already online to engage in sensitive activities online, for personal, professional, or government uses.

Three overlapping elements of digital trust are being developed in the Geneva region. First, organisations are addressing the overall lack of cybersecurity that is leaving individuals and organisations exposed to data breaches. While many breaches are done by hackers or criminals, increasingly the issue of State and non-State malicious attacks are coming to the forefront. Increasing cybersecurity will, among other benefits, help ensure cyberpeace. More broadly, increasing digital trust is not just a matter of reducing harmful activities, but also promoting ethical behaviour on the part of actors with access to or control over sensitive and valuable content and data.

¹² Brad Smith, "The need for a Digital Geneva Convention," Microsoft, February 14, 2017. <https://blogs.microsoft.com/on-the-issues/2017/02/14/need-digital-geneva-convention/>

■ Figure 3 – Elements of digital trust



Increasing digital trust requires an international approach including technical, legal, economic, and social approaches in a multi-stakeholder framework that is well suited to the strengths of International Geneva. Actions to address one element of digital trust benefit the others, which is reflected in the broad and overlapping scope of many of the initiatives described below.

Cybersecurity. The lack of cybersecurity is at the base of the erosion of digital trust. It has been exploited by criminals to breach data belonging to individuals, companies, and organisations, and it has been exploited by hackers to shut down parts of the Internet. The ITU assesses countries' commitment to cybersecurity in its Global Cybersecurity Index and assists member states in developing cybersecurity capabilities and building trust in ICTs. The World Economic Forum Centre for Cybersecurity leverages its partnerships with business and governments to increase cybersecurity for industry. And the Geneva Centre for Security Policy (GCSP) is a foundation that helps develop cybersecurity policy and engages in capacity building for diplomats.

The different communities in Geneva are interdependent as they are facing the same critical questions: How to discuss a common good when there is a serious underrepresentation of certain areas of the world in cyber discussions? How to advance norms and regulations? How to reach consensus on sovereignty and cyberspace? How to create incentive for state and non-state actors to operationalize norms? How to enforce consequences when norms are violated? How to assist targeted civilian populations in a scalable and sustainable way, when there is such an asymmetry in the capabilities of attackers and defenders? How to ensure accountability, when state-actors and related proxies are operating in a culture of obfuscation, benefiting from a technical landscape which evolves at an exponential pace (i.e. AI, 5G)?

All of these challenges have attracted the establishment of the CyberPeace Institute in Geneva. We acknowledge Internet Governance as a complex process, however, we do not forget that civilian interests should be at the center of our actions. Internet Governance is about ensuring the readiness of a normative framework towards the sophistication of malicious acts of

*state and non-state actors. It is about ensuring that this framework provides for the tools and methodologies to hold malicious actors accountable, and that conducting a malicious act bears consequence. is proud to be an integral part of the digital conversation that Geneva fosters.*¹³

Stéphane Duguin, CEO, CyberPeace Institute

Cyberpeace. The ICRC, whose work is based on the Geneva Conventions of 1949, affirms that international humanitarian law restricts cyber operations during armed conflict, and works to address the issues that have arisen. The President of Microsoft, Brad Smith, raised attention to state-sponsored attacks on civilians, and proposed a Digital Geneva Convention.¹⁴ This was a call for governments to adopt a Convention that would protect civilians from nation-state cyberattacks.

As a first step, Microsoft proposed that industry should collaborate to protect users from malicious attacks, and the Cybersecurity Tech Accord was developed, which now has 144 global technology companies as signatories. In addition, Microsoft is one of the core funders of the new CyberPeace Institute, established in Geneva to provide assistance with response and recovery after cyberattacks, accountability through analysis of attacks, and advancement of international law and norms to promote responsible behaviour in cyberspace.

In addition, the ICT for Peace (ICT4Peace) Foundation has the mission to save lives and protect human dignity through ICT, and has worked on the malicious use of ICTs by state and non-state actors for many years. Since 2003 it has explored the use of ICTs and new media for peaceful purposes, such as crisis management and peacebuilding, and since 2007 it promotes cybersecurity and a peaceful cyberspace. It started with the support of the Swiss Government, and has a long list of partnerships with the UN and UN agencies, other foundations, national governments, and Internet companies.

Digital Trust. In the past few years, broader issues of digital trust have begun to emerge. The École Polytechnique fédérale de Lausanne (EPFL) has created the Center for Digital Trust (C4DT) to bring together private sector companies with EPFL laboratories to build on their research to implement trust-building technologies. The Geneva Dialogue on Responsible Behaviour in Cyberspace is a Swiss government initiative beginning its second phase this year, to focus on the roles and responsibilities of the business sector and help them contribute to global efforts towards security and stability in cyberspace at the UN and elsewhere. Finally, the Swiss Digital Initiative seeks to strengthen trust in digital technologies and safeguard ethical standards – it is a new Geneva-based foundation funded by digitalswitzerland, a multi-stakeholder initiative to strengthen Switzerland's position as a leading innovation hub.

¹³ Interview with Stéphane Duguin – March 2, 2020

¹⁴ <https://www.microsoft.com/en-us/cybersecurity/content-hub/a-digital-geneva-convention-to-protect-cyberspace>



Doris Leuthard

Chair, Swiss Digital Initiative and former President and Federal Councillor of the Swiss Confederation

What do you think of the role of Geneva as a hub for Internet governance (broadly speaking, including new digital issues)?

Since 100 years Geneva is a center for international diplomacy. The priority was always human rights, human values, peace, transparency, cooperation. Values which count not only in the old analogue world, but even more in the digital world. The role to serve as a international hub for Internet governance is therefore in the DNA of Geneva.

What led you to choose Geneva for the location of the Swiss Digital Initiative Foundation?

It is not only the historic reputation of Geneva, it is also a fact that most of the UN Organisations, embassies and a lot of multinational companies are located there. It is easy to meet experts, diplomats, people from all over the world and from academia. It is a real eco-system that facilitates contacts, exchange, meetings, etc. For the Internet with a multistakeholder approach it is a fantastic platform! The SDI has therefore chosen Geneva and not Zurich. We have our office in the Biotech Campus of the EPFL in Geneva – together with GESDA, another Initiative with support from the Swiss Government.

How do you see the future role of Geneva in Internet governance? What are the strengths and what are the weaknesses?

The report from the High-Level Panel on Digital Cooperation [on which Ms. Leuthard was a Panel

Member] recommended in July 2019 to the Secretary-General of the UN three ways to build a new architecture for Internet Governance. As we know how difficult it is to create a new body we suggested to build on existing organisations /structures. Geneva therefore can play a future role. With the IGF it already hosts a platform which could be strengthened. For the strengths see my answers to questions 1 and 2. The weakness is for the moment that there is not a big tech company. But this can also be seen as a positive point, because it leads to less dependency, more neutral views.

What recommendations would you make for stakeholders, including but not just governments, to help Geneva realize its potential for Internet governance?

Many of the fundamental rights apply also in the cyber space. But it is important to adapt, interpret them. So far we have not a lot of internationally agreed guidelines, principles etc. but a lot of different measures. As long as the legal framework is so fragmented the big tech giants have too much room to act. No one alone can regulate and lead Internet affairs. Data means power and the interdependency is higher and higher. Therefore governments, companies as well as societies have an interest of legal certainty, of international agreed values and principles, of cooperation and dialogue. Geneva is the right spot for that with the UN Organisations, NGOs, diplomats, etc. The faster the better!¹⁵

¹⁵ Interview with Doris Leuthard – May 24, 2020.

Digital Trust Label



The Swiss Global Digital Summit, Geneva, September 2019

The Swiss Digital Initiative (SDI) was launched in September 2019 at the Swiss Global Digital Summit in Geneva, convened under the patronage of then President of the Swiss Confederation, Ueli Maurer. The aim of the SDI is to help implement ethical standards in online applications to strengthen trust in digital technologies and their actors.

The first project of the SDI is a digital trust label that will provide assurance to users that a service meets criteria relating to security of the service, reliability of the service, fair data management, and responsible interactions with users. Its development draws on many Swiss actors, including the EPFL and University of Geneva, Credit Suisse, IBM Switzerland, SBB, Swiss Re, Kudelski, and others.

In June 2020, the Trust Valley was announced, to help ensure the growth of the digital economy, in light of the increased reliance on the Internet during the COVID-19 crisis and the need to protect the ecosystem. The Trust Valley brings together actors across the Lake Geneva region, including the Cantons of Vaud and Geneva, higher education institutions, and companies that work on digital trust and cybersecurity. The goal is to work together to benefit from the expertise in the region, bring together knowledge and technologies, and address challenges across key sectors, including a Trust4Health project to increase digital trust related to the COVID-19 crisis.

The principles of digital trust are not just important globally, but also within International Geneva, to protect sensitive data. The ICRC recognizes the positive implications of technology for humanitarian actions, and the critical need to protect personal data, particularly during humanitarian actions. As such, it developed the *Handbook on Data Protection in Humanitarian Action*, which is widely considered to be best practice, and conducts workshops on the handbook for other international organisations.

The above initiatives and institutions all seek to address significant Internet governance issues. Each is based on partnerships within International Geneva, and taken together the initiatives serve to develop policies, strategies, norms, and tools to promote digital trust among industry and government, drawing on multiple stakeholders, publishing studies, and engaging in capacity building.

3.3 Digital Rights

As the Internet is increasingly used for socializing and entertainment, shopping and business, politics and protests, and government services including health and education, questions of fundamental human rights have arisen. Many of these online services require personal data, which have been subject to misuse, breach, and surveillance, impacting individuals' right to privacy. Likewise, national governments have censored individuals and organisations, blocked online services, and shutdown the entire Internet in their countries at times, impacting the right to freedom of expression. While these actions are ultimately subject to national laws, governments have also made important international commitments to human rights.

The Universal Declaration of Human Rights (UDHR) was an early act of the United Nations in 1948, and forms the basis for international human rights law along with a number of treaties, including the International Covenant on Civil and Political Rights. These instruments include the key human rights that need to be protected online, including privacy and freedom of expression. In addition, a number of UN resolutions have begun to recognize the impact of the Internet on human rights, and affirmed that offline rights apply in the online sphere as well.

The importance of digital rights was already recognized in the Geneva Declaration of Principles adopted by the member states at the end of the Geneva phase of the WSIS in 2003. It committed to building an Information Society that respected and upheld the Universal Declaration of Human Rights, noting for instance the importance of Article 19 safeguarding the right to freedom of opinion and expression.

Digital rights are generally defined as the same human rights that apply offline, however, there are a number of challenges in establishing rights in the online sphere.¹⁶ First, international human rights law was established in the wake of World War II, when the main focus was protecting human rights from government actions. However, businesses are a significant stakeholder online – providing services and

¹⁶ <https://www.dw.com/en/what-are-digital-rights/a-36703292>

content and gathering personal data. Thus, the establishment of digital rights – like the rest of Internet governance – must be multi-stakeholder, and include the businesses that build and operate the Internet as well as providing digital services, and also civil society to represent, and help educate, users.

As the recognized home for international human rights, Geneva is a natural hub for the application of offline human rights to the online sphere. The Office of the High Commissioner on Human Rights (OHCHR) is based in Geneva, along with the Human Rights Council (HRC) and the treaty bodies responsible for implementing the covenants. The HRC has appointed a number of special rapporteurs in recent years that now address issues relating to digital rights, including one on freedom of opinion and expression and another on the right to privacy. The special rapporteurs submit annual reports and make recommendations on ways to better protect these human rights.

In order to address the general roles and responsibilities of businesses with respect to human rights, the UN Guiding Principles on Business and Human Rights were developed and endorsed by the HRC in 2011. In addition, a Working Group on Business and Human Rights was established, supported by the OHCHR, which also hosts an annual Forum on Business and Human Rights in Geneva. While the Guiding Principles do not directly reference digital rights, the Forum has had workshops on Internet-related issues, including one on shutdowns and censorship. The framework is therefore in place for increased discussions of the role of businesses in supporting and ensuring digital rights.

With regards to civil society, the OHCHR recognizes cooperation as a strategic priority and promotes participation. The HRC requested a report on civil society involvement with regional and international organizations in general, including UN bodies and agencies, with recommendations for ensuring participation. Geneva hosts the offices of a number of leading civil society groups, including Human Rights Watch, Amnesty International, the International Service for Human Rights, and the Universal Rights Group. While these groups do address digital rights issues, the main organizations specializing in digital rights do not have any representation in Geneva, a gap addressed below.

*The 2030 Agenda is grounded in human rights, and protecting human rights is necessary to reach the SDGs. We believe that extending secure and open access to the Internet is essential to the exercise of human rights in the digital age, and therefore to reaching the SDGs.*¹⁷

Access Now, civil society group, 2020

Many of the Internet Governance activities in Geneva help to promote digital rights, and these digital rights interact with the other clusters. There is a debate whether access to the Internet itself should be considered as a new human right, which some countries have already begun to recognize. In any case, closing the digital divide can help to fulfil other human rights, including rights to work and education. In addition, the right to privacy cannot be fully preserved without promoting digital trust, including preventing cybersecurity attacks and data breaches. Geneva plays an important role in these activities, as described in the previous sub-sections. However, while Geneva is clearly the centre for international human rights, the promotion of digital rights is not yet centred on Geneva.

¹⁷ <https://www.accessnow.org/digital-rights-are-vital-for-sustainable-development/>

3.4 Response to COVID-19

The emergence of the COVID-19 pandemic led to a global crisis. While it is first and foremost a global health crisis, the response included widespread lockdowns and social distancing as a way to slow the spread, in turn leading to a global economic crisis. International Geneva played a significant role in the response, with a natural focus on the health cluster in Geneva, the subject of the previous *Fondation pour Genève* report in this series.¹⁸ However, all of the clusters of Internet governance in Geneva played their role in the response as well.

The Internet clearly mitigated the impact of the lockdown. Employees were able to continue to work from home, students able to learn, households able to shop for essentials, communicate with family and friends, and last, but not least, entertain themselves. This put a significant strain on the Internet, but the original design has proven largely able to withstand the surge of demand.¹⁹ To ensure the Internet can continue to play this vital role, the ITU developed a Global Network Resiliency Platform (#REG4COFID) to help countries share information and learn from each other's regulatory responses.²⁰

However, the increased demand for the Internet also magnified the digital divide – not just for those who have no access, but also for those with little access who cannot afford increased usage. Stories emerged of children without devices or Internet access to reach their classes, parents unable to telework, or households having to share devices and ration expensive access. Likewise, small businesses, health facilities, and schools need sufficient capacity to stay connected and offer increased levels of online services.

To help ensure affordability, availability, and accessibility of Internet service and devices, the Broadband Commission developed an Agenda for Action, including commitments of the Commissioners and their organisations to help implement the Agenda.²¹ The ITU and WEF joined with the World Bank and GSMA to develop an action plan to help leverage digital technologies.²² Finally, the previously scheduled UNCTAD annual eCommerce Week was held online and highlighted webinars to explore policy solutions to address the crisis and its impact on trade during the crisis and beyond.

The increased usage of the Internet also increased the targets for cyberattacks, in particular by exploiting the fear and uncertainty raised by the pandemic. The ITU started an initiative called CYB4COVID which tracks resources on cybersecurity to help ensure safe and secure connections.²³ In addition, there is a so-called 'infodemic' in which the amount of information about the pandemic increased to a degree that attackers began to use emails on the topic to disguise their attacks on users, as well as healthcare providers. The CyberPeace Institute created a series of online events to increase awareness to counteract the infodemic.²⁴ As noted above, the new Trust Valley is also aimed at increasing digital trust in response to the COVID-19 crisis.

¹⁸ https://www.fondationpourgeneve.ch/wp-content/uploads/2020/01/23_08h58_FpG_Bulletin_No1_Sante_GEint_FR_WEB.pdf

¹⁹ <https://www.washingtonpost.com/technology/2020/04/06/your-internet-is-working-thank-these-cold-war-era-pioneers-who-designed-it-handle-almost-anything/>

²⁰ <https://reg4covid.itu.int>

²¹ <https://www.broadbandcommission.org/COVID19/Pages/default.aspx>

²² <https://www.worldbank.org/en/news/statement/2020/04/21/the-world-bank-wef-gsma-and-itu-mobilized-in-the-fight-against-covid-19>

²³ <https://www.itu.int/en/action/cybersecurity/Pages/CYB4COVID.aspx>

²⁴ <https://cyberpeaceinstitute.org/blog/2020-03-25-what-is-the-infodemic>

Digital rights are also at issue, perhaps no more so than regarding the issue of ‘contact tracing’ apps that are being developed. These apps keep track of users’ proximity with others using the same apps. If someone alerts the app that they were diagnosed with COVID-19, then it alerts others who were in proximity with that person. The result is a potential trade-off of healthcare and privacy. This issue was examined, among other venues, in a webinar sponsored by Right On, an initiative that has emerged to address human rights issues during the pandemic, sponsored by several Permanent Missions and NGOs, the Geneva Academy, and the Geneva Internet Platform.²⁵

The Geneva Internet Platform (see box below) played a central role in providing information about digital policy issues surrounding the crisis, with its Observatory on trends across various aspects of Internet Governance, and a number of online events on the topic. Through the DiploFoundation, the platform provided material that it developed on digital diplomacy, including online participation in global policy processes, and it was able to quickly host an online workshop for all stakeholders on how to organize and run online meetings during the resulting lockdowns.²⁶

The Internet is also being used to address the health crisis. The WHO is delivering a significant amount of information on its own website, including advice for the public and health workers, and developed a WHO Health Alert using WhatsApp in partnership with Facebook. Likewise, the WHO and ITU are repurposing their existing BeHe@lthy BeMobile initiative to work with mobile operators to text people with health messages related to COVID-19. Finally, as part of its COVID-19 response, WEF developed a COVID Action Platform, in partnership with WHO, to help mobilize the global business community.²⁷

International Geneva quickly focused on the pandemic and the resulting crisis, across all relevant organisations, encompassing a whole range of topics. In the aftermath of the crisis a ‘new normal’ is likely to emerge with an increased reliance on the Internet, which will put an increased focus on closing the digital divide and increasing the digital economy of countries, preventing and mitigating the resulting cyber attacks, and continuing to ensure that human rights are respected online. The challenge, and path of action, for International Geneva in this respect is clear and must be met.

3.5 Emerging Internet Governance Issues

*Digital governance is a topic that needs to be developed with an open public interest ethos. There is a natural logic for Geneva to use its role to encourage a convergence of thinking and develop first principles about digital governance.*²⁸

Richard Samans, Managing Director, World Economic Forum

²⁵ <https://righton.dig.watch/about/>

²⁶ <https://dig.watch/trends/coronavirus-crisis-digital-policy-overview> and <https://www.diplomacy.edu/covid-19>

²⁷ <https://www.weforum.org/covid-action-platform>

²⁸ Interview with Richard Samans – June 4, 2020

Recent revelations about the extent of surveillance, foreign interference in elections, cyberattacks, Internet shutdowns, and the impact of hate speech have led to a heightened recognition of the increased need for government oversight of online activity. These revelations emerge against a backdrop of increased concern about the digital divide and lack of full digital inclusion, along with a need to fortify the digital economy globally. While many of these issues are - or could be - covered by national policies and laws, the Internet is by nature international, and an international framework is clearly being sought.

At the same time, there is a longer-term trend of fragmentation among countries in their approach to Internet governance issues. This dates back to the initial discussions at the WSIS around Internet governance, particularly with respect to ICANN and the role of the ITU. Since then, possibilities for fragmentation have emerged across a number of topics, including protectionism, content filtering, digital trade, and data localization.²⁹ The position of countries depends on the issue and the venue, although often one or more of the BRICS (Brazil, Russia, India, China, and South Africa) along with some less developed countries are pushing for more government involvement, against the countries defending the status quo to varying degrees, including the US and the European Union.

These fragmented positions represent significant differences among countries in their approach toward Internet governance. While in some of the early cases the status quo prevailed, such as the status of ICANN and the DNS, which is largely resolved now that the US gave up oversight, in other cases the status quo may not be supportable. The question is whether all countries move together, or whether there is a fracture among countries, that in turn creates a fissure within the fabric of the Internet itself. Two significant relevant examples relate to digital trade and content regulations.

As noted above, a bloc of countries has begun to address digital trade at the WTO under the JSI, in plurilateral discussions that could turn into longer-term negotiations. While the group of countries represents the vast majority of e-commerce revenues today, they do not represent the majority of countries. Many developing countries feel that their domestic digital economy is underdeveloped and not prepared for an opening to international competition. At the same time, it is not clear what would happen if there is a significant fracture between the groups.

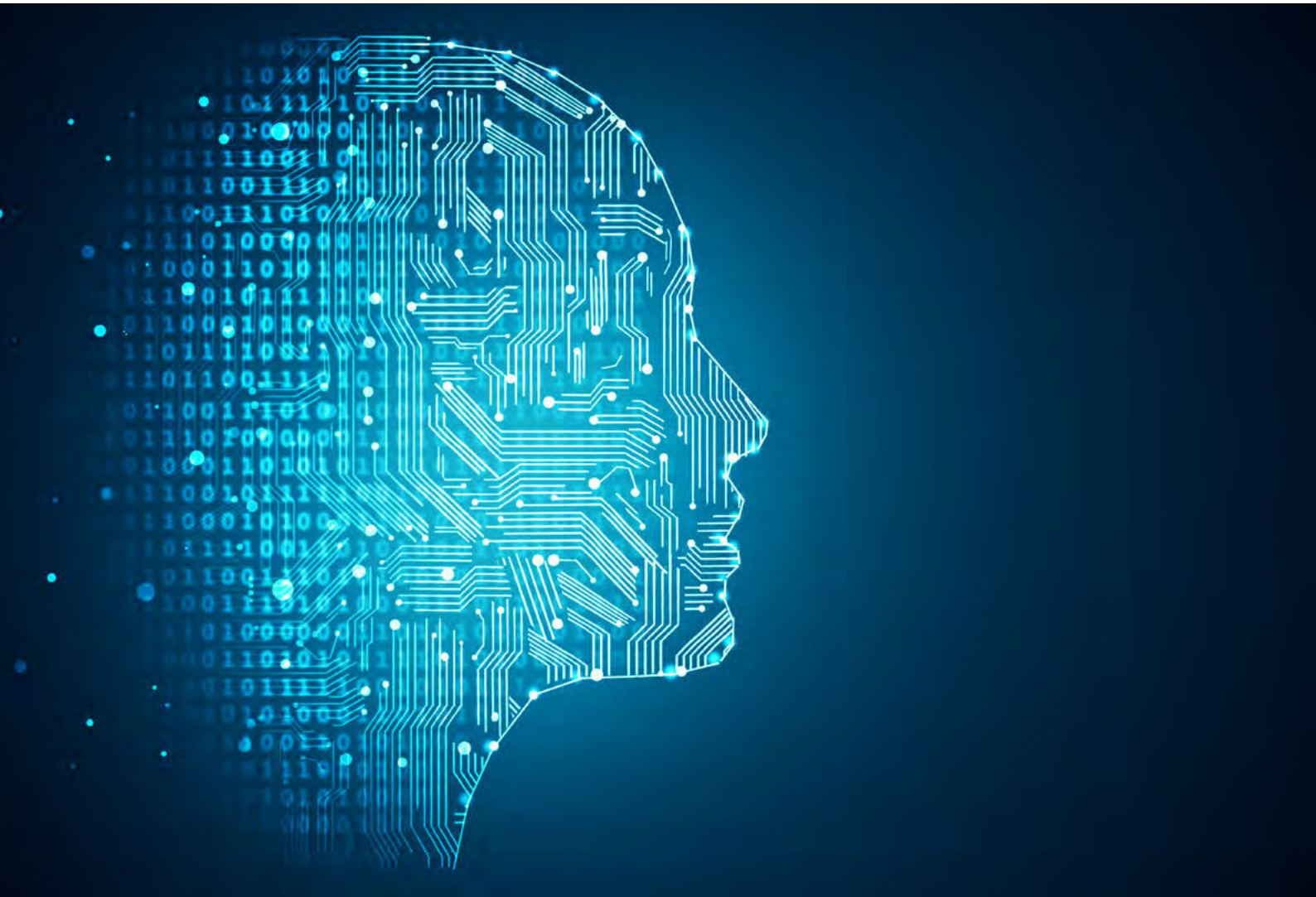
At the same time, following the 2019 terrorist attack in Christchurch, New Zealand, which was live streamed and viewed countless times, the Christchurch Call took place in Paris and brought together a number of world leaders and tech companies to eliminate terrorist and violent extremist content online. This followed the Paris Call for Trust and Security in Cyberspace that was announced by the French President during the Paris Internet Governance Forum (IGF) in 2018, which is now supported by 78 states and hundreds of other organisations and public authorities. These calls highlight the need for concerted international action by all stakeholders to address these ongoing issues of content regulation. Again, the question arises whether there could be two or more content regulation regimes, and the impact that would have on the Internet.

Looking toward the future, a shift in the government role is emerging. Whereas initially a *laissez-faire* approach characterized many governments' approaches to Internet governance, there now appears to be a widespread recognition that it is difficult to impose regulations on large companies offering existing, widely adopted services. As a result, more review is starting to be given to emerging

²⁹ William J. Drake, Vinton G. Cerf, and Wolfgang Kleinwächter, *Internet Fragmentation: An Overview*, World Economic Forum Future of the Internet Initiative White Paper, January 2016.
http://www3.weforum.org/docs/WEF_FII_Internet_Fragmentation_An_Overview_2016.pdf

initiatives and technologies before they are released or widespread. Thus, for instance, the Libra cryptocurrency announced by Facebook and others, whose Association is based in Geneva, has come under significant scrutiny by governments and been altered as a result. Likewise, the emergence of artificial intelligence (AI) has already led to significant concerns about balancing innovation and regulation that did not arise as earlier digital technologies began to emerge.

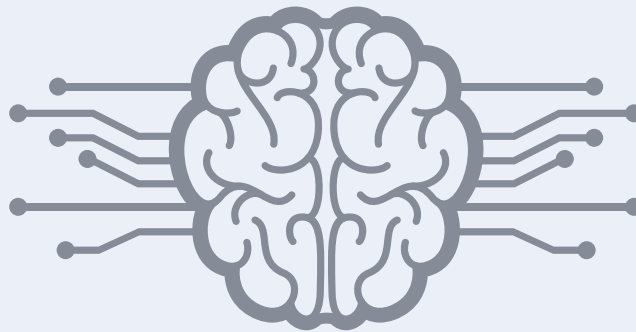
International Geneva is an ideal location to address these issues. It is a neutral space for different blocs of countries to discuss issues of common concern, and for discussion of government approaches versus commercial self-regulation. It can build on the existing strengths in Internet governance to begin to address emerging issues. Indeed, policy questions surrounding artificial intelligence are already beginning to emerge and be addressed in a transversal way in Geneva.



Emergence of AI Focus in Geneva

AI today is not like automation of the past decades. Machine-learning trained models make guesses – which is another way of saying that they form judgements. These judgements are increasingly affecting peoples' lives as the AI increasingly assists humans in governing, regulating, and assisting. The rub, however, is that the models generating the judgements are too complex to work out what is causing what, so it is hard to know if some sort of unacceptable bias has slipped in – say, racism, sexism, ageism, or other 'isms'.³⁰

Richard Baldwin, Professor, International Economics and Co-Director, Centre for Trade and Economic Integration, Graduate Institute, Geneva.



The emergence of artificial intelligence (AI) has the possibility to change many aspects of our lives. The popular vision of AI tends to focus on physical forms – robots, self-driving cars, smart speakers – and in some cases this will require international governance, for instance with respect to the issue of Lethal Autonomous Weapon Systems (LAWS). Indeed, this issue has been taken up in Geneva in numerous venues, including several Group of Government Experts convened on the topic; by the UN Institute for Disarmament Research (UNIDIR); and the ICRC.

However, the virtual use of AI may turn out to be more pervasive, with greater impact – this relates to AI systems that will help with

tasks and services normally relying on human insight. This can be to diagnose diseases and design treatments, take decisions on justice, help make agriculture more efficient, among other uses. How these systems are designed and used is a significant issue being addressed across the Geneva region, by traditional and new players, to ensure that the emerging systems incorporate ethics, avoid bias and discrimination, and ensure AI serves humanity.

Many of the international organisations are addressing questions of AI. The ITU has begun hosting the annual AI for Good Global Summit and other work to leverage AI. The goal is to identify practical AI applications in the areas of health, commerce, communications and migration,

³⁰ Richard Baldwin, *The Globotics Upheaval: Globalisation, Robotics and the Future of Work*, Oxford University Press, 2019.

among others, and scale them for global impact to help achieve the SDGs. In addition, the ITU organizes focus groups to address emerging industry needs, including one focus group on AI for autonomous driving, and another on AI for health, in partnership with WHO.

The World Intellectual Property Organisation (WIPO) is looking at the impact of AI on intellectual property, both for the use of AI by national intellectual property offices to assess applications, and as AI is used by inventors and incorporated into their inventions. For instance, should inventions autonomously generated by AI applications be eligible for patents?

And the ILO is looking at the future of work in the era of AI, given the potential impact of AI on jobs, to ensure workers have the digital skills to use AI on the job, and that at the workplace, final decisions are taken by human beings, and not algorithms.

In addition, the DiploFoundation has a new project called HumAlnism, using AI to draft a social contract for the AI era by identifying the main issues and drawing on human knowledge to develop AI-driven solutions. WEF has a platform for shaping the future technology governance, including AI and Machine Learning, to accelerate the benefits and mitigate risks on equity, privacy, transparency, accountability, and social impact.

The Geneva Academy is looking at the governance of AI from a human rights perspective, specifically to ensure that human rights, and in particular international human rights law, are at the centre of the governance of AI. ICT4Peace has been considering the impact of AI for several

years, including the ethics of AI and laws around the use of autonomous weapons in peacetime. And the Graduate Institute hosts the new Digital Health and AI Research Collaborative (I-DAIR), to create a platform to promote responsible and inclusive AI research and digital technology development for health. One of the frontier issues GESDA is addressing is advanced artificial intelligence, and in this light, will be developing synergies with I-DAIR.

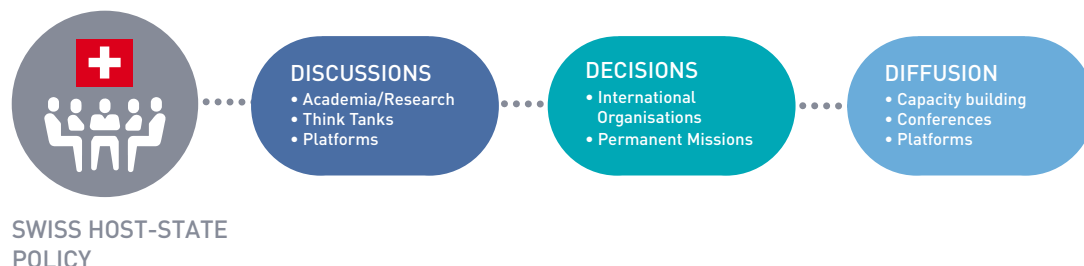
Finally, Swiss Cognitive is an AI hub bringing together industries, organisations, enterprises, and start-ups to explore the possibilities of AI. Swiss Cognitive recently launched the CognitiveValley, a non-profit to promote the Swiss AI ecosystem worldwide. In Geneva, ImpactIA is a foundation, whose partners include the Canton of Geneva, dedicated to ensuring that AI provides positive impacts for small businesses and individuals, and that it serves a sustainable humanity.

These efforts place Geneva at the centre of the emergence of AI and its governance. Together, the efforts will help to develop new applications for AI and a governance model for emerging AI systems, to ensure that they are ethical, and to anticipate and address any negative impacts.

3.6 The Foundations of Internet Governance in Geneva

While the policy development clusters described above represent the core of Internet governance in Geneva, they do not represent the totality of the clusters. Policy development benefits from academia and research and think tanks, to provide inputs and convene stakeholders outside a traditional policy setting for debates and reflections. At the same time, to help feed and diffuse the results of the discussions, it is important to have capacity building, both to help train those needing to participate in the discussions and also to inform them of the results of those decisions. In Geneva, these foundations rest on a forward-looking, supportive, Swiss host-state policy.

■ Figure 4 – Policy development in Geneva



Research and Capacity Building

The Geneva region boasts three leading academic institutions, which conduct research and capacity building and enter into numerous partnerships and sponsor events, workshops, and other initiatives in the Geneva region.

- The EPFL is a technical university in Lausanne, which among other disciplines conducts research in cybersecurity technologies and developed the C4DT, has education programs including online courses, and hosts an Innovation Park for innovation and entrepreneurship.
- The University of Geneva hosts the Digital Law School, with research on a variety of digital topics including cybersecurity liability and intellectual property rights in the era of big data. It also hosts an international research colloquium, and a summer school for international students.
- The Graduate Institute, Geneva, provides a multidisciplinary perspective on international governance, including specifically research and teaching on Internet governance, digital trade, and hosts a new AI initiative.

There is a gap in the region, however, in comparison with academic institutions elsewhere that have developed centres that focus on interdisciplinary research on aspects of the Internet.³¹ In the Geneva region, such a centre could bring together technical, economic, legal, and governance research groups to develop new governance ideas and develop new research on topics relevant to the three clusters of Internet governance in Geneva. It could leverage its local presence in ways that centres in other countries could not, bringing together international Geneva and visitors with academics in the participating institutions. Such a centre is being proposed and could be hosted at the Graduate Institute.

³¹ One such center, the Berkman Klein Center for Internet & Society, started a global Network of Internet & Society Centers, which includes dozens of such centers, but not including any academic institutions in Geneva. See <https://networkofcenters.net>.

The Geneva Internet Platform

*Engaging digital actors – Fostering effective digital policy –
Monitoring digital governance.*

The Geneva Internet Platform

Geneva Internet Platform

The Geneva Internet Platform occupies a central location in the Internet Governance space of Geneva. It provides a Digital Watch Observatory, which maps Internet governance activities in Geneva and beyond. It also sponsors events and dialogues, and it provides monthly briefings on Internet governance and digital policy for the community. The Geneva Internet Platform is an initiative of the Swiss authorities, and is operated by the DiploFoundation.



The DiploFoundation also plays an important role in Digital Geneva and beyond. The goal is to help increase the role for small and developing states through capacity building in areas including Internet governance. It holds courses for diplomats on Internet governance and policy, digital commerce, and cybersecurity, among others, and as noted above, during the COVID-19 crisis lent its expertise to helping International Geneva develop its digital diplomacy tools and expertise.

There are other initiatives that cover the dual role of helping to develop policy and providing capacity building. The Geneva Academy of International Humanitarian Law and Human Rights is a joint centre of the Graduate Institute, Geneva, and the University of Geneva. It counts among its projects one on Human Rights in the Digital Age, which helped prepare a report for the HRC on rights to freedom of peaceful assembly and of association, and the Human Rights, Big Data and Technology Project.

CERN played a significant historical role in the development of the Internet. It was the largest hub for Internet in Europe in the 1990s and helped to develop the framework for governance of the Internet in conjunction with ICANN. Sir Tim Berners-Lee famously invented the World Wide Web at CERN in 1989, and insisted that it be made publicly available, helping to popularize the Internet. More recently, it has teamed with the GCSP and Canton of Geneva to create a foundation to develop a software tool called Heidi+ that has been used to track collaboration between NGOs in Geneva. And of special relevance during the COVID-19 crisis, CERN employees developed an application called Remotely Green that enables virtual coffee breaks and meetings during online conferences.

Many of the other institutions mentioned above engage in capacity building in Geneva in their areas of expertise, including GCSP, the ICT4Peace Foundation, and the ICRC. In addition, Geneva plays host to a number of conferences and events focused on Internet Governance. A number of them discussed above build on the convening power of the UN and its organisations. However, as noted, events are also hosted by NGOs including the Internet Society, and the Swiss Confederation.

Participants are drawn by the welcoming environment, reputation, safety, and convenience of international Geneva.

In sum, the foundations for the Internet governance hub in Geneva are strong, and further helped by supportive Swiss policy.

Swiss host-state policy

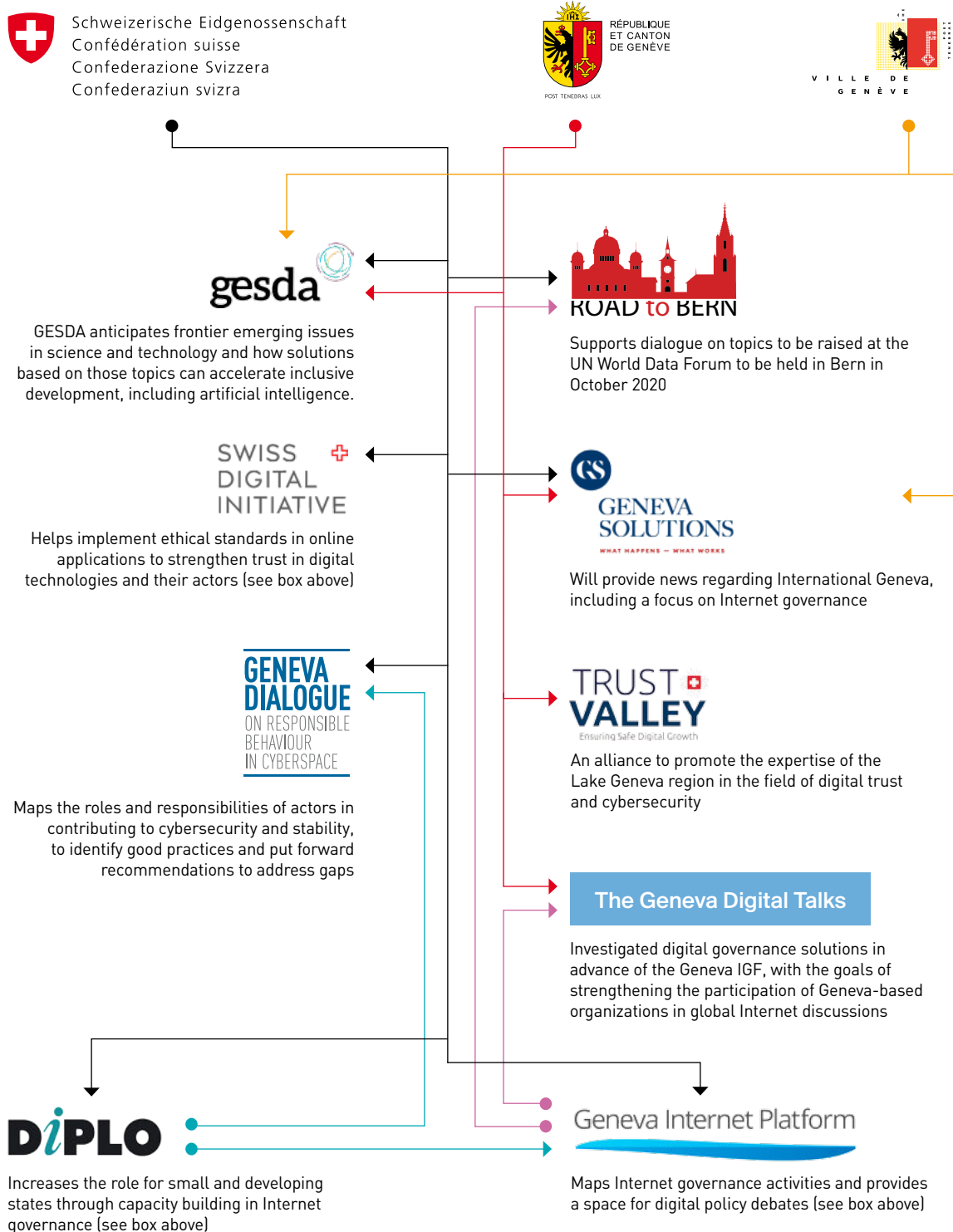
The Swiss Confederation and the Canton and City of Geneva play a significant role in directly and indirectly supporting Geneva's role as a cluster for Internet governance. Of course, this includes overall support for International Geneva, including hosting the UN headquarters and its agencies and Permanent Missions and welcoming their employees and families.³² The governments also sponsor numerous platforms, initiatives, and conferences. Participants in all of these activities in turn appreciate the neutrality of Switzerland in general, and the government not strongly advocating its own policies in the various fora taking place under its aegis.

The Swiss authorities have sponsored a number of critical platforms and initiatives focused on Internet governance issues, as shown in Figure 5.



³² For more details, see https://www.eda.admin.ch/dam/eda/en/documents/publications/InternationaleOrganisationen/GaststaatSchweiz/Schweiz-Host-State_en.pdf.

■ Figure 5 – Swiss Initiatives



The Swiss authorities provide long-standing support for International Geneva and Internet Governance activities, as well as targeted support for a variety of new initiatives and dialogues.

4 ASSESSMENT OF DIGITAL GENEVA

Geneva's key strength lies first, in its international organizations, and secondly in its quality of life. The city plays a leading role in world governance because it is both a location for multilateral negotiations and a centre for operations that extend worldwide (on labour, migration, health etc.) It is both one of the smallest and one of the most important world cities, perhaps the most important in relation to the size of its population.

[...]

Digital technology is currently completing and overtaking the technological revolution of the late 19th century, when distance was cut by speed (with trains, steam engines, cars and planes) and annihilated by the telegraph and telephone. By removing all physical limitations, it is reinforcing Geneva's comparative advantages, for example through worldwide dissemination of knowledge and expertise linked to the work of international organizations and by responding to the needs of societies undergoing fundamental change.³³

Philippe Burrin, Director of the Graduate Institute of International and Development Studies, Geneva.

In this section, we highlight the considerable strengths of the Internet governance hub in Geneva, and the opportunities facing it. At the same time, it is important to identify any gaps and challenges. In this way, we can develop recommendations for stakeholders to fill the gaps and address challenges, so that Digital Geneva can reach its full potential.

³³ Speech by Philippe Burrin, Award ceremony 2019 of the Fondation pour Genève, 2 December 2019

4.1 Opportunities for International Geneva

*The strengths of Geneva are that there are many actors from different stakeholder communities here, with a culture of working together. As the division between political spaces plays into issues of regulation, Geneva with its impartiality and neutrality comes in as a place to get solutions.*³⁴

Ambassador Valentin Zellweger, Permanent Representative of Switzerland to the Office of the United Nations in Geneva

International Geneva has a strong history and current presence in many aspects of Internet governance, as outlined throughout the report. This includes the activities of the international organizations and NGOs in Geneva, the convening power of actors in Geneva to bring key participants to Geneva for events and initiatives, and a supportive Swiss policy. Already today according to one measure by the Geneva Internet Platform, 50% of the digital policy issues they have mapped are addressed in Geneva.³⁵

The recent UN Secretary-General's High-Level Panel on Digital Cooperation helps point the way toward a future path Internet governance could take in Geneva to build on its strengths.

*As a global community, we face questions about security, equity, and human rights in a digital age. We need greater cooperation to tackle these challenges and mitigate risks.*³⁶

António Guterres, Secretary-General, United Nations

With these words, the UN Secretary-General established the High-Level Panel in July 2018. He noted the role that digital technologies play in realizing the Sustainable Development Goals (SDGs), how these technologies cut across international borders, and that current levels of international cooperation are not at the level to address the challenges. The panel's report was released in June 2019, with five recommendations:

1. *Inclusive digital economy and society*, with the goal that every adult have affordable access to digital networks with full digital inclusion and digital equality.
2. *Human and institutional capacity*, with the establishment of regional and global digital help desks to assist all stakeholders to understand digital issues.
3. *Human rights and human agency*, urging a broad review of how existing international human rights accords apply to new and emerging digital technologies.
4. *Trust, security and stability*, recommending the development of a Global Commitment on Digital Trust and Security.

³⁴ Interview with Valentin Zellweger – March 6, 2020

³⁵ <https://www.giplatform.org/about-gip>

³⁶ <https://digitalcooperation.org/united-nations-secretary-general-appoints-high-level-panel-on-digital-cooperation/>

5. *Global digital cooperation*, recommending a Global Commitment for Digital Cooperation in 2020, using a multi-stakeholder systems approach.

The secretariat for the High-Level Panel was based in Geneva, and the recommendations all touch on the three UN pillars, which correspond to the Internet governance clusters of International Geneva – the digital economy, human rights, and trust and security. In addition, the approach to develop digital help desks and enhance digital cooperation encompasses the strengths of International Geneva.

A year after the report was released, the UN Secretary-General's *Roadmap for Digital Cooperation* was released, in June 2020. It builds on the recommendations of the High-Level Panel report, with actions for the Secretary-General, the UN and its agencies, and other stakeholders.³⁷ The Swiss government is already taking a lead on the implementation of the recommendations, and all the hubs of Internet governance in Geneva should strive to play a significant role.

4.2 Gaps in Digital Geneva

The strengths of International Geneva with respect to Internet governance focus on the international organisations, and in particular the main pillars of the UN and its agencies. However, Internet governance follows a multi-stakeholder model, and in this light, there are gaps in International Geneva.

Internet companies play a key role in many aspects of Internet governance, including the clusters focused in Geneva. The companies provide innovative solutions and investments to help bridge the digital divide, and are central to the digital economy. Internet services and their data are the focus of cyberattacks, and as noted by Microsoft President Brad Smith, the tech sector provides the first responders following attacks. And finally, online services can be used to express, or restrict, freedom of expression, and the equipment provided by vendors can enable, or deter, surveillance and other infringements on privacy.

While Internet companies regularly send employees to Geneva for conferences and meetings, only one – Microsoft – has a permanent policy presence in Geneva. Including the companies in day-to-day formal and informal dialog and collaboration would strengthen the role of Digital Geneva. By bringing a greater multistakeholder approach, it would further help to strengthen Internet governance as a whole, given the importance of the issues addressed in Geneva.

Likewise, while there are a number of NGOs and foundations present in Geneva that focus on Internet governance issues, there could be a greater focus on digital rights. In particular, civil society organisations specialized on Internet issues are not based in Geneva. This is a noteworthy gap with respect to digital rights, where a number of organisations based elsewhere play a significant role in promoting digital rights and highlighting lapses.

³⁷ <https://www.un.org/en/content/digital-cooperation-roadmap/>

In our consultations, we heard a great deal of dissatisfaction with existing digital cooperation arrangements: a desire for more tangible outcomes, more active participation by governments and the private sector, more inclusive processes and better follow-up. Overall, systems need to become more holistic, multi-disciplinary, multi-stakeholder, agile and able to convert rhetoric into practice....

*Many international organisations are trying to adjust their traditional policy work to reflect the realities of the digital transformation, but do not yet have enough expertise and experience to have well-defined roles in addressing new digital issues. At a minimum there needs to be better communication across different bodies to shape awareness. Ideally, effective cooperation should create synergies.*³⁸

The age of digital interdependence. Report of the UN Secretary-General's High-level Panel on Digital Cooperation

There are significant examples of coordination and cooperation among the organisations in Geneva, many described above. However, as noted by the High-Level Panel on Digital Cooperation, the degree of cooperation could increase in general, and that also includes in Geneva. A number of experts we interviewed noted the presence of silos within the organisations in Geneva limiting cooperation, and that much cooperation is informal and based on personal connections, rather than more formal cooperation between organisations.

We will address these gaps in the recommendations below.

4.3 Other hubs of Internet governance

Of course, International Geneva is not operating in a vacuum, and Internet governance takes place in many settings around the world. None appears yet ready to supplant the role of Geneva individually, or even as a whole, but Digital Geneva should not rest on its history or current role.

Washington DC, Brussels, and other national or regional capitals are natural hubs for Internet governance issues, with representation by many Internet companies, trade groups, and civil society organisations. These hubs are largely focused on domestic legal or regulatory issues, which can have significant impact on Internet companies and industries. However, even though decisions taken in these capitals may reverberate beyond their borders, they are not recognized as a neutral venue for international Internet governance.

Paris and Vienna both host international organisations that address aspects of Internet governance. Paris is host to UNESCO and the Organisation for Economic Co-operation and Development (OECD),

³⁸ <https://digitalcooperation.org>

and host for both the Paris Call and the Christchurch Call in the past several years. Vienna is also a base for UN organizations including the UN Commission on International Trade Law (UNCITRAL), United Nations Industrial Development Organization (UNIDO), and UN Office on Drugs and Crime (UNODC), each of which address digital issues. However, neither city has the concentration or ecosystem of Geneva to address a wide range of Internet governance issues.

In addition, the Council of Europe, based in Strasbourg, France, has a significant Internet Governance history and strategy.³⁹ In relation to Digital Trust, The Convention on Cybercrime of the Council of Europe (known as the Budapest Convention) is a binding international instrument on cybercrime, and likewise the Council of Europe's Data Protection Convention is a binding treaty on data protection. In addition, the Council of Europe has written a guide to human rights for Internet users, and has done work on human rights aspects of AI. The Council of Europe has 47 Member States, with other Observer States, and its influence extends beyond Europe. For instance, 65 countries have ratified the Budapest Convention.

Finally, as the home of UN headquarters, a number of Internet issues are addressed in New York. For instance, as host of the Security Council and First Committee on Disarmament and International Security, the UN Group of Governmental Experts (GGE) on Advancing responsible State Behaviour in cyberspace in the context of international security as well as an Open-Ended Working Group (OEWG) on similar issues are based in New York.⁴⁰ Also, New York may play a significant role in the implementation of the High-Level Panel on Digital Coordination, and possibly even host the Internet Governance Forum (IGF) Secretariat, currently based in Geneva.

While no single location has the depth and breadth of organisations addressing Internet Governance, the increased focus on digital issues at the UN may result in movement of key processes from Geneva to New York. However, a number of experts interviewed for this report highlighted the value of Geneva. First, they noted that New York is more political than Geneva, and takes more of a top-down approach to addressing issues as a result. Further, New York, or any other city for that matter, does not have the depth of expertise to address key issues, nor the breadth of expertise to accommodate increased levels of digital cooperation across domains.

Geneva is a natural home for digital processes, as it has a more significant base of expertise, is seen as a neutral location, and tends to address issues in a bottom-up approach which syncs well with the ethos of Internet development and multi-stakeholder dialogs. However, while International Geneva is a natural home for Internet governance, it is not the designated home, and all relevant stakeholders should ensure that it continues to welcome existing and new initiatives, and adapts to the ever-evolving landscape.

³⁹ See [https://www.coe.int/en/web/freedom-expression/internet#{"35752287":{}}](https://www.coe.int/en/web/freedom-expression/internet#{)

⁴⁰ <https://dig.watch/processes/un-gge>



Pierre Maudet

State Councillor in charge of the Department of Security and the Economy of the Republic and Canton of Geneva

What is your view of Geneva's role as a centre of governance for the Internet?

Geneva has a central role in the governance of the Internet. According to Geneva Internet Platform statistics, over 50% of global discussions and negotiations about Internet governance already take place here. Whether we are thinking about commercial issues, health questions, standards or indeed, the intellectual property dimension – and these are only a few examples – the work takes place in Geneva. The Secretary-General of the United Nations is well aware of this, as a significant proportion of the organizational work and drafting for the UN High-level Panel on Digital Cooperation was carried out in Geneva. The challenge now, as the panel clearly recognised, is to accelerate cross-cutting cooperation, working in a multi-stakeholder and multidisciplinary way. The Canton was already leaning in this direction when it launched the Geneva Digital Talks in October 2017. Since then, Geneva's positioning as the central hub of governance for the digital world has steadily strengthened.

What do you recommend that stakeholders (including businesses, international and non-profit organizations, and government) should do to ensure that International Geneva's role in the governance of the Internet continues to grow?

My main recommendation is to work as a network and abandon silo thinking. The most important innovations, including in relation to governance, require a new approach, which is both multidimensional and multidisciplinary. The very strong concentration of cutting-edge expertise here enables this. Key players in the economy, higher education, international and local civil society, and world governance represent an extraordinary network. We must start to make real use of the comparative advantages of an ecosystem like no other!

How do you see the future role of Geneva in the governance of the Internet?

I see the potential for a much larger role, as the digital dimension of our lives is continually increasing. The Covid-19 pandemic has only accelerated this very powerful trend. I see three main areas of work in this context and it is absolutely essential that we make progress on all of them. The first is linked to governance of data, with enormous challenges relating to the new balance to be struck between respect for privacy and our individual and collective health. The second is linked to cybersecurity.

The current crisis has vividly highlighted the importance of cybersecurity-related vulnerabilities. Geneva should be the place where cyber-resilience is reinvented. Third and finally, I see it as essential to establish a position on the issue of trust in the digital era. Geneva, and the wider Lake Geneva region, have the necessary resources in their ecosystem to develop new thinking and new measures around trust, an essential ingredient in both social and economic life.

What strengths does Geneva offer that contributed to attracting the Swiss Digital Initiative and the CyberPeace Institute? What role did the government of Geneva play in helping to attract these initiatives?

It is precisely the incredible concentration of expertise, together with the presence of a large number of stakeholders, both public and private, that constitutes the unique strength of our city. At the time of the fourth industrial revolution, which embodies an ever-stronger fusion of the material, digital and biological worlds, being a world centre for biotech is also a key advantage. Geneva also has a very important heritage in terms of innovative responses to challenges linked to evolutionary (and revolutionary) technological change.

Just think of Henry Dunant and the creation of the Red Cross – and that is only one example. From that time on, the city has stood out as a place where technology meets a humanitarian response. This long tradition still continues, and is continually refreshed. The arrival of the CyberPeace Institute (CPI) and the Swiss Digital Initiative (SDI) are two recent examples.⁴¹

⁴¹ Interview with Pierre Maudet – April 13, 2020

5 RECOMMENDATIONS

In order to maintain and increase its role in Internet governance, International Geneva can take steps to help to attract stakeholders to Geneva for existing work on Internet governance, attract new initiatives and issues to Geneva, and increase the degree of collaboration and cross-fertilization of ideas. These recommendations are provided for all stakeholders, including the relevant levels of Swiss government and other organisations in or adjacent to International Geneva.

5.1 Attract stakeholders to Geneva

*With thought leadership on global societal issues in cyberspace, Geneva can attract companies to contribute to technology governance solutions*⁴²

Jean-Yves Art, Senior Director, Strategic Partnerships, Microsoft

Two sets of stakeholders are broadly missing from International Geneva – Internet companies and civil society focused on digital issues. While both sets visit to participate in relevant events, working groups, and conferences, their lack of permanent presence is noteworthy. In the case of companies, one reason is a lack of perceived need, while in the case of civil society, the cost of a presence in Geneva also plays a role. The rationale for not being present may be understandably strengthened in the aftermath of the COVID crisis, as organizations incorporate the increased use of online tools in lieu of physical presence.

One recommendation is to develop a location to provide office space for visiting stakeholders. This co-working space would enable interactions between stakeholders, and could include meeting rooms and even conference space. In addition, it could include video conference facilities, to enable broader interactions among and between visitors and their organizations, a need that is likely to remain in the post-pandemic ‘new normal.’

This would help to make Geneva more attractive and affordable for visitors who would have a place to work and network between meetings. It would also help to sell the benefits of a more permanent presence. Possible locations include the Campus Biotech, which already hosts three new initiatives (GESDA, the CyberPeace Institute, and the Swiss Digital Initiative), or the nearby *Maison de la Paix*, which also hosts a number of relevant organisations including the Graduate Institute and Geneva Centre for Security Policy (GCSP).

At the same time, a common complaint in Geneva is the cost of accommodations, particularly at times of high demand, such as for large conferences. Any initiative to lower or constrain these costs would help attract participants, particularly those from civil society and developing countries. This may prove particularly important given the economic downturn caused by COVID-19.

⁴² Interview with Jean-Yves Art – February 13, 2020

5.2 New initiatives in Geneva

As noted above, Geneva has been successful in attracting a number of new institutions and initiatives in recent years. Further efforts to highlight each of the three clusters of Internet governance in Geneva could be important to strengthen existing initiatives and institutions and attract new ones.

- *Digital for Development.* The role of Geneva in this area is already highlighted through the annual World Summit on Information Society (WSIS) Forum and the work of the ITU, the UNCTAD eCommerce Week, and WTO Public Forum.

A more formal organisation could help to develop this cluster. This organization could help to aggregate data on digital for development from the organizations in Geneva and elsewhere, and also identify experts and good practices for addressing common issues. It could also work with donors to bring together experts from UN agencies and external experts to deliver critical projects for countries or regions.

- *Digital Trust.* There is a significant concentration of expertise on all aspects of digital trust in the Lake Geneva region, including Lausanne. The digital trust cluster could benefit from an annual event focused on digital trust to bring together these experts and visitors to address key issues. This is similar, for instance, to the eCommerce Week or AI for Global Good conference. It would help solve common problems, develop new solutions, and highlight the work in Geneva.
- *Digital Rights.* Likewise, an annual event to focus on the application of offline rights online would help to shine a spotlight on those key questions and attract stakeholders to Geneva. This could be held in conjunction with the existing Business and Human Rights Forum, held annually in Geneva, for instance, taking advantage of having visitors already in Geneva.
- *Center for Internet Studies.* While Geneva boasts three top-class academic institutions, one gap in comparison with other academic and research institutions is a Center for Internet Studies, which could bring together the academic research with International Geneva to address digital governance topics from a technical, economic, and legal perspective.

Further, Geneva hosted the secretariat of the High-Level Panel on Digital Cooperation, and should play a significant role in its implementation, along with a number of the help desks and other elements of collaboration. This would create momentum for a new phase of Digital Cooperation, which would favour the elements of International Geneva that have already made it an important hub for Internet governance.

Finally, a marketing campaign could help to promote Internet Governance in Geneva, focused on a name such as Digital Geneva, and a logo, to help promote all of the existing work and new work. In addition to an online presence, the campaign could be present at key Internet Governance events including the Internet Governance Forum, the ICANN annual meetings, and the annual meetings in Geneva, to highlight the benefits of a presence in Geneva.

Geneva has a remarkable reputation as the home of international organizations. Think of the International Red Cross among so many others. The UN in Geneva seems more focused on global, international collaboration and on constructive engagement compared to its seemingly more political counterpart in New York. While there is a vibrant private sector in Geneva, especially in finance, pharmaceuticals and also in some manufacturing, it seems to be lower on the list for business operations outside of finance and insurance, for example. As the Internet continues to become more central to business operations, one might ask what aspects of Digital Cooperation in aid of Internet utility, safety, security and resilience might find purchase in Geneva?

*If data trusts become important tools for business collaboration, could Geneva become a hub for that? Just as Geneva banks hold financial assets, might other Geneva organizations hold information assets on behalf of its beneficiaries? The Swiss neutrality could make it very attractive for data sharing, transaction record keeping, registration services among other digitally facilitated activities.*⁴³

Vinton Cerf, Internet Pioneer and Vice President and Chief Internet Evangelist, Google

5.3 Increase cooperation

Many of the interviews conducted while researching this report noted that cooperation could be increased between organisations in Geneva on digital issues. There are important partnerships between organisations in Geneva, as well as countless examples of informal cooperation. The Geneva Internet Platform plays an important role in bringing together institutions and informing the community what is happening. The community also clusters around initiatives and events, including the Road to Bern series in 2020 that are co-sponsored by two organisations each.

However, the findings of the High-Level Panel on Digital Cooperation cited above regarding shortcomings in cooperation apply to Geneva, given the amount of digital activity taking place. Likewise, the recommendations of the panel on how to enhance digital cooperation, by reinvigorating multi-lateral partnerships and possibly creating new multi-stakeholder mechanisms, apply to Geneva. Indeed, Digital Geneva should be at the forefront of efforts to help define this new architecture, as well as playing a critical role within that architecture.

Another finding, which arose while researching this report, was the occasional challenge in determining which organisations in Geneva are doing relevant work on digital issues, and what work they are doing. While the Geneva Internet Platform has mapped Internet Governance in Geneva, the organisations themselves could facilitate this by highlighting their digital work within their own

⁴³ Interview with Vinton Cerf – May 8, 2020

websites and linking to others. This could help to promote more collaboration and better recognition of the results of such collaborations.

A final finding, also highlighted in the report of the High-Level Panel, is the lack of data and evidence on digital issues. Their report calls on the establishment of a knowledge repository, and the organizations in Geneva could contribute to this through the methodological presentation of their findings. Further, an effort to highlight the data being gathered in Geneva, and link the databases together, would further fuel collaborative efforts and foster policy dialogues based on an analysis of the linked data.





6 CONCLUSION

International Geneva has a solid history and foundation for Internet governance that extends back to hosting the first international summit focused on Internet governance in 2003. Today, the hub is centred on three clusters of Internet governance in Geneva – Digital for Development, Digital Trust, and Digital Rights – which correspond to the three pillars of the UN. The clusters are strengthened by academic and research institutions and venues for capacity building, all in turn supported by active Swiss policy. The strengths of Digital Geneva have been highlighted in the response to the COVID-19 pandemic.

International Geneva continues to build on its role as a hub for Internet governance. A number of new initiatives have been developed and hosted in Geneva in the past few years, which target key open questions in Internet governance, such as developing cybersecurity and promoting cyber-peace. Further, a number of annual and one-off conferences take place in Geneva that each attract at least 1,500 participants to focus on particular issues including the extension of the WSIS activities, e-commerce, and Artificial Intelligence.

This report highlights that the strengths of international Geneva in Internet governance promise a strong future. However, Geneva is not attracting a permanent presence of all relevant stakeholders, including notably representatives of industry focused on policy issues, and other cities are building their own strengths in areas of Internet governance. The digital landscape is changing quickly, leading to new questions of governance, and the digital clusters of international Geneva must evolve to help develop solutions.

We recommend that international Geneva build on its current strengths, to help highlight work in each of the clusters, while also helping to attract representatives of all relevant stakeholders. These steps could be implemented against a broader strategy of promoting Digital Geneva through targeted outreach campaigns. We urge all stakeholders to help to build on the existing foundations to ensure that the future of Internet governance in Geneva is realized, to progress an inclusive digital for development, promote digital trust, and ensure digital rights for everyone, everywhere.

7 ANNEXES

ANNEX A

Geneva Internet Platform Mapping of Internet Governance Issues

The Geneva Internet Platform uses a taxonomy of Internet Governance issues, reproduced below, in seven clusters each containing a number of issues. This taxonomy was developed by Dr. Jovan Kurbalija and contained in his book *An Introduction to Internet Governance*.⁴⁴

Infrastructure

- Telecommunications infrastructure
- Critical Internet resources
- Digital standards
- Artificial intelligence
- Blockchain
- Internet of Things (IoT)
- Cloud computing
- Net neutrality and zero-rating
- Emerging technologies

Cybersecurity

- Cybercrime
- Critical infrastructure
- Cyberconflict and warfare
- Violent extremism
- Child safety online
- Encryption
- Network security

Human Rights

- Freedom of expression
- Privacy and data protection
- Right to be forgotten
- Rights of persons with disabilities
- Gender rights online
- Freedom of the Press
- Children's rights
- Human rights principles

Legal and regulatory

- Jurisdiction
- Alternative Dispute Resolution
- Data governance
- Intellectual Property Rights
- Liability of intermediaries
- Convergence and OTT
- Digital legacies

Economic

- Digital business models
- E-commerce and trade
- Taxation
- Consumer protection
- Future of work
- Cryptocurrencies

Development

- Sustainable development
- Access
- Inclusive finance
- Capacity development
- E-waste

Sociocultural

- Content policy
- Cultural diversity
- Multilingualism
- Digital identities
- Online education
- Interdisciplinary approaches

This mapping is global, and does not pertain only to Geneva, although many of the issues listed do play out in Geneva as noted in the report above.

⁴⁴ See <https://dig.watch/issues>, using the taxonomy used in Dr Jovan Kurbalija, *An Introduction to Internet Governance*, DiploFoundation [7th edition], which can be downloaded free at <https://www.diplomacy.edu/resources/books/introduction-internet-governance>.

What is happening today in Geneva in the field of Internet Governance? What are the strengths and weaknesses of Geneva? What could happen in the future to increase the role of Geneva in Internet Governance? What are some recommendations to get there?

Stéphane Duguin, CEO CyberPeace Institute ⁴⁵



100 years ago, *La Société des Nations* paved the way for Geneva's footprint, building upon the city's tradition of bridging communities, connecting nations, and providing a neutral platform for the free expression of arts and political ideas. Over a century, the river crossing evolved into an international centre providing for political, academic, and economic interactions through a vibrant ecosystem of governmental representations, multi-stakeholder initiatives, and international and non-governmental organizations. This ecosystem, benefiting from the proximity of the United Nations and its affiliated bodies, has allowed for the creation of human-centric policies and partnerships for disarmament, global health, fighting landmine proliferation and climate change. Because of its horizontal nature across these global challenges, it is no surprise that Internet Governance ranks highly on the Geneva agenda.

In the past decades we have seen a multiplication of initiatives on Internet Governance established in Geneva, such as The Internet Society, the Geneva Digital talks or the Swiss Digital Initiative. Beyond the cyber centric initiatives, we have also witnessed a strong effort from "historical" Geneva actors, such as UNIDIR through its technical support to the UN GGE and UN OEWG, the ICRC's work on operationalization of humanitarian law in the cyberspace, the WEF Centre for Cybersecurity, the WHO's work on digital health, and the International Telecommunication Union's (ITU) focus on Internet related standards. This non-exhaustive list demonstrates the robust profile of Geneva as a city and Switzerland as a whole, notably through the Internet Governance Forum or the EPFL Centre for Digital Trust.

This environment creates a variety of opportunities and challenges. On one hand, the initiatives listed above can benefit from Geneva's savoir faire of transforming international governance discussions into actions. For example, Geneva is the platform to coordinate humanitarian help to fight pandemics or to ensure that victims of large-scale violations of human rights can be heard. This experience can aid the Internet Governance community. It can ensure that Internet Governance discussions will not happen in a vacuum, as it is easy to forget that governing the Internet is not about governing networks or infrastructures, but protecting and empowering people. It is about ensuring that civilian communities can benefit from a cyberspace at peace, everywhere.

On the other hand, the proliferation of initiatives might widen existing gaps. Internet Governance is a multidisciplinary field, and due to the multi-layered nature of the Internet, actors of diverse backgrounds have very distinct focus areas. Some actors might concentrate for instance on infra-

⁴⁵ Interview with Stéphane Duguin – March 11, 2020

structure and standards, others on the rules governing digital services and content online, and others on normative frameworks for responsible behaviour in the cyberspace. Any of these fields are potentially prone to abuse but each one of them bears very different challenges, and most initiatives require specific specializations that have the potential to create blind spots. These parallel worlds of Internet Governance, whilst situated in a small geographical area across the riverbed, are not known to be very porous to each other. For example, it is a challenge to ensure that technology informs diplomacy in real time, and articulates how a technical breakthrough disrupts the policy environment. Let us remember how Tim Berners-Lee and Robert Cailliau shaped 30 years of norms from within CERN, when they issued their proposals for the World Wide Web. Shaping the technical reality of cyberspace immediately causes an impact to its normative framework at a global scale.

This siloed approach between actors makes it complex to address the challenges of cyberspace. As a matter of fact, these different communities are interdependent as they are facing the same critical questions: How to discuss a common good when there is a serious underrepresentation of certain areas of the world in cyber discussions? How to advance norms and regulations? How to reach consensus on sovereignty and cyberspace? How to create incentive for state and non-state actors to operationalize norms? How to enforce consequences when norms are violated? How to assist targeted civilian populations in a scalable and sustainable way, when there is such an asymmetry in the capabilities of attackers and defenders? How to ensure accountability, when state-actors and related proxies are operating in a culture of obfuscation, benefiting from a technical landscape which evolves at an exponential pace (i.e. AI, 5G)?

All of these challenges have attracted the establishment of the CyberPeace Institute in Geneva. We acknowledge Internet Governance as a complex process, however, we do not forget that civilian interests should be at the center of our actions. Internet Governance is about ensuring the readiness of a normative framework towards the sophistication of malicious acts of state and non-state actors. It is about ensuring that this framework provides for the tools and methodologies to hold malicious actors accountable, and that conducting a malicious act bears consequence.

Geneva's history is known for breakthroughs in connecting international communities for noble purposes, from the Alabama Arbitration to the first Conference on Disarmament. In this context, Geneva has the potential to give birth to coherent narratives across stakeholders in Internet Governance. Geneva can be more than an international hub where people convene and discuss; it can be an incubator for innovative solutions to achieve cyber peace.

The risks are high as the competition is global and fierce. We live in a time where leading normative discussions goes hand in hand with implementing physical infrastructures, which means imposing geopolitical power. There is a need for a neutral and multi-lateral platform, with values of impartiality and inclusiveness at its core. We live in the age of digital interdependence, and in this age we need a platform for cooperation. We believe that Geneva is offering this space, and it is our mission as the CyberPeace Institute to participate and contribute to this common endeavor.

ANNEX C

Glossary

AI Artificial Intelligence	IETF Internet Engineering Task Force	SDI Swiss Digital Initiative
C4DT Centre for Digital Trust	IGF Internet Governance Forum	UDHR Universal Declaration of Human Rights
CERN European Organization for Nuclear Research	IHEID <i>Institut de Hautes Études Internationales et du Développement</i> (Graduate Institute, Geneva)	UN United Nations
CSTD Commission on Science and Technology for Development	ILO International Labour Organization	UNCTAD United Nations Conference on Trade and Development
DNS Domain Name System	ISO International Organization for Standardization	UNDP United Nations Development Programme
ECOSOC UN Economic and Social Council	ISOC Internet Society	UNESCO United Nations Educational, Scientific and Cultural Organization
EPFL <i>École Polytechnique fédérale de Lausanne</i>	ITC International Trade Centre	UNGA United Nations General Assembly
GCSP Geneva Centre for Security Policy	ITU International Telecommunication Union	UNIDIR UN Institute for Disarmament Research
GESDA Geneva Science and Diplomacy Anticipator	JSI Joint Statement Initiative	UNOG United Nations Office of Geneva
GGE UN Group of Governmental Experts	LAWS Lethal Autonomous Weapons Systems	WEF World Economic Forum
HRC Human Rights Council	MDG Millennium Development Goals	WGIG Working Group on Internet Governance
ICANN Internet Corporation for Assigned Names and Numbers	NGO Non-governmental organization	WHO World Health Organisation
ICRC International Committee of the Red Cross	OEWG UN Open-Ended Working Group	WSIS World Summit on Information Society
ICT Information and Communication Technology	OHCHR Office of the High Commissioner for Human Rights	WTO World Trade Organization
I-DAIR Digital Health & AI Research Collaborative	SDG Sustainable Development Goals	WWW World Wide Web

ANNEX D

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INTERNATIONAL GENEVA IN FIGURES



Fondation pour Genève



INTERNATIONAL GENEVA IN FIGURES*

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44

International Organizations (IOs) in Switzerland, including **38** in Geneva, **3** in the canton of Vaud, **2** in Bern and **1** in Basel



178

UN Member States represented by more than **260** Permanent Missions, Representations and Delegations



420

International Non-Governmental Organizations (INGO)



33'957

jobs in IOs, INGOs and missions



More than **100'000**

jobs in multinational companies based in Geneva



4'600

annual visits of heads of state and government, ministers and other dignitaries



3'236

meetings annually and

207'147

delegates from all around the world



6.3

billion Swiss francs spent annually by IOs

of which **3.5**

billion Swiss francs spent annually by IOs in Switzerland

* In 2019

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