

# Enabling ICT for development

Interview with Dr M-H Carolyn Nguyen, who explains why governments need to start thinking seriously about how to leverage ICT for their development goals, and why an appropriate policy environment is crucial to enable the level of investment necessary to support sustainable economic growth



## Biography

*Dr M-H. Carolyn Nguyen is a Director of Technology Policy at Microsoft, focused on policy issues related to Internet governance, the digital economy, and artificial intelligence. Dr Nguyen is also Vice Chair ICC Commission on the Digital Economy*

## What does ICT mean for sustainable economic development?

ICT applications in all sectors around the world are already accelerating the pace of development in national economies, addressing the United Nations Sustainable Development Goals (SDGs), and improving the quality of life in numerous communities. ICT offers the potential to empower everyone and enhance their lives by giving them access to education, better healthcare, and more opportunities; lowering barriers to market entry for entrepreneurs and enabling organizations of all sizes to be more efficient, innovative, and increase their market reach; and helping governments to provide better services and interaction for their citizens.

There is a wide variety of technologies that serve different purposes in enabling economic development. To better appreciate the broad spectrum of ICT, it is helpful to think of the technologies involved as layers within an ecosystem:

- At the foundation of any digital service is an *infrastructure* layer that includes the networks and devices that enable access to relevant applications, contents, and services; and the sensors that provides appropriate information for the different services (eg. traffic patterns, meteorological conditions, water levels). Examples of infrastructure technologies include wireless broadband networks that provide affordable access to remote

*The IGF provides an opportunity for those policymakers who wish to benefit from diverse sources of knowledge, and generate policy options from the experience and expertise of relevant stakeholders, all of which can then be translated into local action*

communities; and sensors in the ground in farms that provide timely updates on soil humidity to help improve crop yield in an environmentally responsible manner.

- *Applications, contents, and services* that are relevant to the different communities and sectors. Examples include online information that enables students to learn subjects that are not otherwise available, or small businesses to identify potential partners and buyers for their products; healthcare applications that remind people to take their medications, or enable remote experts to consult on cases; and mobile payment capabilities that make it possible for more people to conduct financial transactions, or send money to relatives. Furthermore, the ability to link the physical and digital worlds using information available through sensors and insights provided by data analytics has the potential to enhance every process, transform our daily routines, and enable significant innovations in every sector.
- An essential element of this enablement is *user* digital skills and literacy, both to be able to access and consume the services offered, as well as to create services that are relevant to the local communities. Sustainable economic development requires applications and contents that are of interest to people.

ICT provides so many cross-cutting opportunities for sustainable economic development. It is fundamental to the realization of the SDGs.

## What is the role of business in making this happen?

Business is at the forefront of developing the technologies that can enable inclusive growth and sustainable development both globally and locally. Working in partnership with governments and organizations around the world,

we have been deploying innovative solutions for the goals articulated by the SDGs, and investing at all layers of the ICT ecosystem on both the supply and demand side, to address needs at the infrastructure and applications layers, as well as build capacity and digital literacy skills for people to not just consume, but also create new services. Business has also spearheaded a number of global education initiatives, promoted innovation and startup hubs, and entered into public-private research and development partnerships.

We have always endorsed multi-stakeholder approaches, recognizing that each stakeholder contributes unique perspectives that can help develop more effective and practical approaches and policy frameworks. We see ourselves as an integral part of the policy-stakeholder community globally.

Business also has a role in helping people understand how ICT actually works. As technology often evolves faster than regulation, policy stakeholders must have a working knowledge of technology to develop future-oriented policies that can encourage responsible development of technology and contribute to societal goals, while not hampering innovation. Forward-looking and flexible approaches will lead to better outcomes, meet national objectives and ensure that the societal benefits of ICT are not lost by short-sighted policy measures.

## How can governments drive investment and reap these benefits?

Governments need to establish a holistic policy environment that is focused on enabling a continued level of investment that can lead to sustainable innovation, growth, and development. With ICT, the private sector has played an important role in deploying internet-related infrastructure and delivering a wide range of services.

Continued investments will require stable and predictable policy and regulatory frameworks that recognize the value of ICT and the need for developing healthy ICT ecosystems that can lead to sustainable economic growth. Without growth, investment becomes philanthropy; and without growth, realization of the SDGs is not possible.

For example, public policies should promote rather than deter investment in innovative broadband technologies that can extend reach and affordability of network access to new applications. The full potential of the internet as a platform should be enabled by adopting policies that comply with applicable privacy and security regulations while enabling cross border data flows. Investment in high speed networks and ICT services can create a platform for economic growth, job creation, and greater competitiveness.

ICC's recent policy statement on [ICT policy and sustainable economic development](#) is a useful tool to help governments understand the impact policies have on the infrastructure, applications, services and user-engagement layers of the ICT ecosystem.

**You note the importance of an 'enabling policy environment', what factors come to mind when considering this for ICT?**

ICT is an essential foundation for enabling the SDGs, but not sufficient without a policy environment that enables its development and deployment.

An enabling policy environment balances considerations in four dimensions:

- First, *economic* considerations about how to promote sustained investment and encourage innovation and

entrepreneurship that can lead to national economic growth.

- Second, *social and cultural* considerations about how to foster ICT and digital literacy skills to enable consumption as well as creation of relevant content, services, and applications for the local communities that are respectful of human rights.
- Third, *technical* elements that are important for maintaining a safe, secure, resilient and globally interoperable infrastructure that supports the above objectives.
- And finally, *governance approaches* that (1) encourage public-private partnerships and initiatives that can leverage the unique contributions of each stakeholder group, including government, business, civil society and the technical community, and (2) reflect the needs of stakeholders and the different considerations that are required to achieve sustainable economic development and consider regionally or globally interoperable policy frameworks.

## How does this work in practice?

A key dimension of an enabling policy environment centers on 'governance approaches' and the need to leverage the unique contributions of each stakeholder group, including government, business, civil society and the technical community. To illustrate how this works in the real world, I'll take SDG goal five to "*achieve gender equality and empower all women and girls*" as an example. This SDG specifically calls for enhanced use of enabling technology to help empower women.

ICT can impact gender equality by providing women with access to education, financial means, healthcare information, and tools that can make them feel more physically secure, thus creating opportunities for them to participate more readily in the labour market. However, this requires women to have meaningful access to ICT, which depends on factors such as affordability, relevant content, skills and security, to name a few examples.

Currently fewer women than men have internet access in all developing regions. Worldwide, some 2.3 billion women do not have internet access and women are currently less likely than men to use or own digital technologies. Bridging these gaps will require women to overcome the barriers to access as well as creation of relevant applications and contents.

This is where effective 'governance approaches' that leverage the unique and relevant contributions of each stakeholder group can make a difference. For example, business is investing in extensive community training to enhance women's use of technology. By partnering with local nonprofits, programmes equip women with digital devices and provide training so they can teach their neighbours and women in nearby villages to find relevant content, and how to make the most of these tools. Many of the [private sector initiatives](#) are also encouraging a lifetime attitude to training and raising awareness for women of all ages.

Civil society can advise on societal and cultural factors within social groups that may impact women's access and use of ICT. These [groups](#) are often able to collect data and raise awareness on issues that create barriers for women. The technical community lends its expertise by advising on technical capabilities of infrastructure and technology. This expertise is invaluable in considering how technologies might mitigate the socio-economic and political issues identified. For example, the technical community can work to gather data on [gender gap](#) and develop insights that help drive evidence-based policy-making to overcome challenges.

Government policy-making can really benefit from working with all stakeholders. Pooling relevant expertise and experience can lead to better and more impactful outcomes to address gender digital divides.

It sounds like collaboration is important, where can governments and businesses meet to have these exchanges?

A good example of how and where stakeholders can collaborate and share knowledge on a global scale is through the Internet Governance Forum (IGF). The IGF provides a unique opportunity because stakeholders meet on an equal footing and share best practices and policy options on a range of subjects pertaining to the internet.

The IGF provides an opportunity for those policymakers who wish to benefit from diverse sources of knowledge, and generate policy options from the experience and expertise of relevant stakeholders, all of which can then be translated into local action.

The 12<sup>th</sup> IGF took place in Geneva at the United Nations Palais de Nations under the theme: *Shape Your Digital Future!* A workshop of note, organized by the business community, government and civil society explored the complex relationship between ICT and women's economic empowerment and gathered capacity building options to address challenges faced in developed and developing countries. More information about the workshop and IGF itself can be found on the IGF website.

## How does ICC facilitate business engagement in multistakeholder dialogues globally?

The ICC Commission on the Digital Economy gathers business expertise across sectors and geographies to produce policy guidance that helps the global development of the digital economy and promotes investment in ICT. This information is leveraged in a number of ways, including through the Business Action to Support the Information Society (BASIS) initiative at the IGF and other global forums. BASIS helps evangelize the value of the multistakeholder approach and contributes business expertise to policy-making intended to leverage ICT for sustainable economic development. ■