Webinar Report

Catching Technological Waves

Innovation with Equity, the Role of Civil Activism

Key Speakers

Shamika N Sirimanne (Director of the Division on Technology and Logistics, UNCTAD)**, Pradeep S Mehta** (Secretary General, CUTS International)**, Carlos Maria Correa** (Executive Director, The South Centre)**, Clovis Freire** (Economist, Division on Technology and Logistics, UNCTAD, Team Leader of the Technology and Innovation Report 2021), **Neth Dano** (Coordinator and Asia Director, ETC Group, the Philippines)**, Robert D Atkinson** (President, Information Technology and Innovation Foundation), **Peter Mwencha** (Assistant Professor, American International University, Kuwait), **Mike Jensen** (Labs-Community Network Coordinator, Association for Progressive Communications), **Bipul Chatterjee** (Executive Director, CUTS International).

1. Introduction

1.1 The Technology and Innovation Report 2021 critically examines the possibility that frontier technologies, such as artificial intelligence, robotics and gene editing, could widen existing inequalities and create new ones.

1.2 Over the past few years, we have been confronted with technological innovations such as artificial intelligence, robotics, and machine learning, all of which have the potential to improve our lives through advancements in education and healthcare. The innovations, without the proper access, have the potential to exacerbate inequalities.

1.3 The webinar discussed the importance of how technology can increase access to marginalised sections, the impact of frontier technology as an aspect of the Sustainable Development Goals (SDGs), and how international cooperation can help.

2. Key Takeaways

2.1 Speaking on occasion, Shamika N Sirimanne spoke about how none of the developing nations are prepared for the consequences of technological advancements. These advancements have caused inequalities and have also impacted mid-level skills jobs.

2.2 She highlighted the importance of vigorous civil activism, which is needed to ensure that technology helps in the development of all and not just a few. If left to the private sector, she mentioned that technology will be used only to increase sales of big companies like Amazon and Apple and that they cannot be trusted to develop ethics. Civil activism can push Artificial Intelligence to track trafficking and help create vaccines for the forgotten diseases of the poor. Civil activism has the potential to go a long way in calling for an ethical framework.

2.3 Pradeep S Mehta spoke about how the internet and telephone world, in the recent past, have demonstrated the power of ever modernising network technologies, fostered user engagement, and have broadened the scope of the global economy.

2.4 He spoke about how India has been at the forefront of experimenting, innovating and integrating technology into industries that have seen increased usage and footfall since the pandemic. Apart from China, India is the only nation that has developed an indigenous vaccine and manufactured it at breakneck speed.

2.5 Mehta highlighted how the Indian education system has also been immensely successful in the pandemic's face, breaking geographical barriers and overcoming the challenges of infrastructure to ensure a continued flow of virtual learning to the students in the nation. He spoke about how the intersection of education and technology will redefine the student experience in India in the future. It will set an example for the rest of the world.

2.6 The domain of information and technology to India, Mehta emphasised, provides both opportunities and challenges. Just like India lept into mobile telephony, with a robust financial technology ecosystem from being an unbanked nation a few years ago, emerging technologies provide India with the potential to spearhead innovation and development into the next generation. By sustaining its reform momentum, seizing opportunities and providing benefits to manufacturers, the challenges can be overcome.

2.7 Mehta, in the context of tech, innovation and civil activism, highlighted that UNCTAD runs a campaign on demystifying various issues and a reader-friendly awareness campaign in reaching out to the civil societies at large so that they can be active participants in the area.

2.8 Carlos Maria Correa spoke about his observations on the content of the report. He said that the main message is that the dissemination of frontier technology does not mean that they bring equal opportunities. Issues of inequality are an essential element and highly pertinent that the report has covered this.

2.9 He highlighted that changes in the technological paradigm might have not necessarily brought more equality but holds the potential to deepen asymmetry. Correa said that frontier technology is not as new as many think, given that innovations like robotics and solar cells were born over 70 years ago. At the same time, advancements such as gene editing, blockchain are new. With an increase in technological efficiency, its scope and application have increased and have also created challenges for developing nations. This has restricted developing nations to making them just users and not developers of technological advancements. For positive impacts, developing nations need to be innovators, too and not just the audience.

2.10 Correa refers back to the report in mentioning how to benefit from technology and its advancements; investment needs to be made. The focus has to be on the 5 As - *affordability, awareness, accessibility, availability and ability.* Most organisations and institutions forget the importance of availability and ability. It is pertinent to then look at civil society organisations (CSOs) who bring in the

unique understanding and knowledge of local conditions and recommend adopting technological advancements towards that.

2.11 Clovis Freire, in his address, spoke about how the least ready nations are located in sub-Saharan Africa and that the readiest nations with equitable technology and access are in North America and Europe. He mentioned how job polarisation, the increase in the gap between high and low-paying jobs, has increased in the recent past. Still, it cannot be attributed to technological advancements alone.

2.12 Freire also highlighted how access to technological advancements holds the potential to be restricted by social norms. Marginalised sections of the society like women, children, and lower income groups may be denied access to developments and advancements. It is pertinent that policy carefully addresses these side effects in the future.

2.13 With technological advancements rarely being a solution of their own and challenges existing in multidimensional spaces, not all nations are equally prepared to adapt to critical innovation and technology. Dissemination of frontier technology results in changes, and comprehensive changes can lag the society due to social inertia. He concluded by highlighting that frontier technology needs to be developed and made sustainable and accessible.

2.14 Neth Dano spoke about the potential challenges of how the concentration of scientific know-how can restrict growth, especially that there is no multilateral body mandated to govern frontier technology. Technological advancement is one arena that is not carefully evaluated for its impact, raising the question of who decides what technology is deployed under what conditions. Dano mentioned that an international governing body is an important matter and that people must have the ability to decide what technology they want and reject those that are harmful.

2.15 Dano elaborated on a GOATS - Global Overview Assessment of Technological Systems, an inclusive bottom-up approach involving multi-actor assessment, organised thematically around the 17 SDGs. The GOATS project will build a field view of key technologies, innovations, and technological visions shaping the different themes and attempting to anticipate and evaluate the potential societal implications of key technological developments.

2.16 Robert D Atkinson raised a question to the panelists and audience on understanding the overarching goal - to steer technological innovation or promote it? He mentioned that the installation of new technological systems is engine of growth. At a period between information and communication technology and the new Industrial Revolution 4.0 period, the CSOs will be a significant engine of growth, enabling installation, change, and innovation.

2.17 He highlighted how technological advancements would have differing effects on countries. While the last wave helped lower costs and create a global production system, how effective will technological advancements be when the labor costs are low?

2.18 Developing nations need to think about their strengths and work on developing and monetising the same. Atkinson used the Internet of Things as an example that can be applied as solutions, and nations can eventually consider selling those solutions. He also mentioned that India does not fall into that category, as it is one of the most vital technological nations. The US and India need to develop a stronger technological alliance, and that India need not be apprehensive about a global technological framework.

2.19 Peter Mwencha broadly agreed on the speakers with the points raised. He spoke about the challenges of digital colonialism, with most large organisations based in the west investing and innovation in a technology-based solution to problems. Africa is lagging in precisely that.

2.20 He spoke about how Africa is at a critical stage in building its capacities. While there are some successes, challenges are abundant given that frontier technology is a new approach. Many nations in the region are grappling with skilling, capacity building and lack of resources to engage in policy debates.

2.21 Mike Jensen spoke about how access to affordable high-speed internet has underpinned development. What if there is no affordable low-cost, high-speed connectivity? It is not possible to develop a lot of applications locally. Given that the market is small and deployment costs are high, many communities engage in self-provisioning connectivity by giving up affordable options and setting up their physical infrastructure.

2.22 Some of the webinar's main conclusions were that developing nations find challenges in implementing these technological advancements due to investment and funding requirements. A lot of effort needs to be put into ensuring that all developing nations can access technology innovation.

2.23 Technology needs to be embraced with the 5 As, and the general paradigm shift from shareholder to stakeholder capitalism needs to be analysed. With technological revolution bypassing continents, the revolution we are living through now is powerful and all-encompassing. It was concluded that conversation on this topic is important to ensure that technology works not just for a few but for a larger group of people. We do not leave anyone behind and begin a conversation and converge with stakeholders in addressing challenges and building awareness.

Webinar video is available at: *https://www.youtube.com/watch?v=Pwu4o0vCvaE*