Thailand's Contribution

1. What are the challenges and opportunities faced by policy makers and regulators in embracing transformative technologies for greater impact?

Transformative technologies have been used to produce a wide range of products and services that bring transformation to various sectors. Policy makers and regulators encounter many challenges and opportunities in pushing them forward to achieve a significant impact.

Challenges

(1) Effective interagency and cross-border cooperation : Transformative technology issues may fall under jurisdictions of many organizations in various sectors. Policy makers and regulators are limited by their own jurisdictions when handling transboundary issues. The constraint may lead to the lack of effective interagency and cross-border actions in driving innovation and addressing the abuse and misuse of technologies. Collaborative regulation, an approach aimed at bringing all involved parties from related sectors to work in collaboration to deliver a positive outcome, is adopted to solve the constraint. For example, scam calls and messages have increased in Thailand. Thus, NBTC has set up a multilateral working group on tackling call center and SMS scams, comprising of representatives from various agencies such as Bank of Thailand, Cyber Crime Investigation Bureau and mobile operators. The purpose of the working group is to prescribe measures to tackle the problem holistically and proactively. At the international level, Thailand and Cambodia has a MOU agreement on cooperation in the suppression of call centers and similar scam gangs. However, taking advantage of technologies, scammers are constantly changing their methods. Relevant parties still need to join forces to address the persistent problem.

(2) Data privacy and security: Transformative technologies can pose a risk to data security. AI algorithms require large amounts of data to train them. IoT devices collect vast quantities of data from many sources. There is a chance of personal data leaks or breaches which harm businesses and people. Thailand policy makers and regulators struggle in promoting AI without sacrificing consumer protection regarding data privacy. Thailand has not had laws and regulations to oversee AI.

Opportunities

(1) The role of transformative technologies in promoting the country's economic growth : 5G and beyond, coupled with other technologies such as AI, IoT and cloud enable a variety of applications. They provide an opportunity for vertical sectors to improve their competitiveness that will contribute to economic growth. For example, Thailand is regarded as a top medical tourism destination. The government has a policy to drive Thailand to become a global medical hub. Transformative technologies can be integrated in the healthcare sector to boost health care service delivery. Improved services will help attract more foreign patients to Thailand.

(2) The power of using data to improve public services : Transformative technologies such as AI and big data use vast data to extract important information. The information can help enhance productivity, performance and innovation in policymaking and public service delivery that meets the needs of citizens.

2. What are the key regulatory measures and guiding principles to follow to foster positive and inclusive impact of transformative technologies?

One of the key regulatory measures and guiding principles to help spurring transformative technologies is to create more agile and flexible regulatory approaches supporting the deployment of any technologies that provide positive impact to societies.

Technologies appears to evolve so quickly. Maintaining regulations to keep up with advancement of transformative technologies that are blurring boundaries of industry sectors are difficult. Furthermore, the existing fragmented regulations across organizational jurisdictions of the sectors may pose a barrier to technology adoption. Thus, a regulatory framework should be flexible enough to facilitate the adoption of such technologies but also protect consumers.

In Thailand's case, Telecom and broadcasting businesses are regulated independently under different applicable laws, as they are considered as separate markets. Telecom business operation is governed by Telecommunications Business Act, while broadcasting business operation is subject to Broadcasting and Television Business Act. The current licensing system of these two businesses resulting in various and complex rules and procedures for converged operators. In addition, there is also regulatory vacuum on emerging digital convergence services, which are not categorized in existing regulatory system. NBTC, a telecom and broadcasting regulator, is currently reforming its licensing system to be more flexible, simplified and technology-neutral to encourage market entry and promote digital convergence services.

3. How to drive positive behaviors of market players? How to minimize risks while maximizing benefits?

Policy makers or regulators could provide incentives to market players, as they will encourage them to innovate, invest or compete leading to positive impact on the country and people. Telecom regulator can provide an incentive for telecom operators to expand affordable broadband to people or develop innovative services by leveraging transformative technologies to empower disabled people.

Moreover, transformative technologies are still developing. **But there are concerns that they may pose risks due to data leaks or breaches or potential misuse. To minimize risks while maximizing benefits of technologies, regulatory sandbox is one option.** It will provide a controlled environment that enables businesses to test and scale up their products or services under the supervision of a regulator. NBTC has issued the Notification Re: Criteria for Permitting Frequency Use for Innovation Development and Testing in a Sandbox Area. The regulation allows sandbox participants to use certain frequencies and conduct frequency testing, within a sandbox area, for the development and testing of equipment, network, or system for pre-commercialization purposes.