



TRC Contribution to Consultation on GSR24 Best Practice Guidelines
“Charting the Course of Transformative Technologies for Positive Impact”

TRC (Jordan) Contribution to Consultation on GSR24 Best Practice Guidelines

In today's global landscape, the Information and Communication Technology (ICT) sector stands as a cornerstone and a base for other sectors and services. Its significance lies in its integral role in the economic and social development of nations, irrespective of their developmental stage. Modern technology has facilitated seamless electronic communication across time and distance, heralding a new era of connectivity. Recent technological innovations, spurred by the digitization trend, have been instrumental in propelling the ICT market forward. This innovation has driven down tariffs, expanded network capacities, and diversified subscriber services, revolutionizing communication dynamics. The convergence of IP-based communication networks with the Internet has birthed novel applications and services, such as over-the-top (OTT) applications, reshaping traditional business models in telecommunications and information technology. However, this technological advancement presents policymakers with unprecedented policy and legislative challenges, necessitating advanced and wise regulations to ensure service quality, availability, fair competition, and technological advancement within the ICT market.

Challenges and Opportunities Faced by Policymakers and Regulators in Embracing Transformative Technologies

Challenges:

1. **Regulatory Frameworks:** Developing appropriate regulations for rapidly evolving technologies poses significant challenges. Policymakers must strike a delicate balance between fostering innovation and ensuring public safety and service quality. Additionally, promoting data access and transparency is essential. To achieve this, collaboration between mobile network operators (MNOs) and technology partners is crucial to ensure secure access to high-quality data.
2. **Lack of interoperability-enabling infrastructure:** the absence of interoperability enabling technology is a key challenge in order to adopt transformative technologies. This includes the digitization of payments, including citizen-government and government-citizen payments.
3. **Absence of cooperation between the different stakeholders:** limited coordination between regulatory bodies and private entities and other government agencies is a key constrain to access crucial information for the successful deployment of technologies.
4. **Technical and Human Capital Limitations:** Regulatory bodies face precisely the challenge of being properly equipped to successfully deploy the needed technologies.



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5. **Ethical Concerns:** Emerging technologies often raise ethical concerns, such as data privacy, algorithmic bias, and job displacement. Addressing these concerns while fostering innovation is crucial.
6. **Interdisciplinary Knowledge:** Policymakers may struggle to grasp the technical nuances of emerging technologies without collaboration with experts from various fields.
7. **International Cooperation:** Harmonizing regulations across different jurisdictions is challenging due to varying priorities and interests, yet it is essential for addressing the global nature of transformative technologies. **Global Standards:** Technologies often operate across borders, requiring international cooperation and harmonization of standards and regulations, which was translated
8. **Security and Data Privacy Constraints:** Embracing transformative technologies requires that system backbones adhere to the highest security standards and data privacy laws. This ensures safe implementation and effective tools to combat potential security threats and fraud events. New technologies can introduce significant security risks, including cyber threats and vulnerabilities in critical infrastructure, necessitating robust strategies to mitigate these risks.
9. **Investment and Cost:** The deployment of new technologies, such as 5G, requires significant investment. Service providers must secure the necessary funds despite low average revenue per user (ARPU) and return on capital employed (ROCE) in low-income countries.

Opportunities:

- 1- **Enhanced Efficiency and Accuracy:** Transformative technologies offer the opportunity to streamline processes and enhance the accuracy of regulatory decision-making. By leveraging these technologies, policymakers can analyze vast amounts of data quickly and make informed decisions more efficiently.

Case Study:

The Telecommunications Regulatory Commission of Jordan faced challenges in managing consumer complaints related to telecommunication services. Traditional methods were time-consuming and often lacked comprehensive data for accurate resolution while Crowdsourced



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Performance and Coverage Data along with Data Integration and Analysis allowed for a more comprehensive and up-to-date understanding of network conditions.

- **Increased Efficiency:**

Reduced Timeframes: The availability of real-time data significantly reduced the timeframe required to handle complaints. Regulators could quickly access relevant information and address issues more promptly.

Streamlined Processes: The automated data collection and analysis streamlined the complaint handling process, eliminating the need for manual investigations and reducing administrative burdens.

- **Enhanced Accuracy:**

Data-Driven Decisions: The use of crowdsourced data provided a more accurate and granular view of network performance, leading to better-informed decision-making.

Targeted Interventions: Regulators could target specific areas with identified issues, ensuring more precise and effective interventions.

- **Improved Consumer Trust:**

Transparency: The crowdsourcing approach increased transparency in the regulatory process, as consumers could see their contributions directly impacting regulatory actions.

Responsiveness: Faster and more accurate resolution of complaints improved consumer satisfaction and trust in the regulatory body.

2- **Improved Compliance Monitoring:** Advanced technologies enable real-time monitoring and analysis of compliance with regulations and policies. This allows regulators to detect any incident more effectively and take prompt actions to enforce compliance, ultimately contributing to a more transparent and accountable regulatory environment.. In Jordan case, a meaningful network measurement and monitoring mobile networks at a national level required transformative technology such as crowdsourcing.

3- **Greater Transparency and Accountability:** Utilizing technologies can facilitate greater transparency and accountability in regulatory processes.



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- 4- **Data-Driven Policy Development:** Transformative technologies provide access to large datasets and sophisticated analytics tools, enabling evidence-based policymaking. By leveraging data analytics, policymakers can gain valuable insights into societal trends, identify emerging risks, and design more targeted and effective regulatory interventions. **TRC Jordan** uses geospatial analysis to map the data, identifying areas with poor coverage and service quality, particularly in rural and remote regions. Moreover, TRC Jordan utilized crowdsourced data and launched a targeted subsidy program for telecom operators expanding infrastructure in these low populated areas.
- 5- **Improved decision-making:** Embracing transformative technologies can foster innovation within regulatory frameworks. By adopting flexible and adaptive regulatory approaches, policymakers can encourage the development and adoption of innovative technologies while ensuring adequate safeguards are in place to protect public interests such as privacy, safety, and security.
- 6- **Economic and Social Development:** Embracing transformative technologies can stimulate economic growth by fostering innovation, creating new industries, and enhancing productivity. Additionally, technologies like AI and blockchain can revolutionize public services, improving efficiency, accessibility, and quality, while also addressing societal challenges, promoting inclusive development, bridging the digital divide, and empowering marginalized communities.
- 7- **Enhanced Regulatory and Collaborative Opportunities:** Emerging technologies provide new tools for regulators to monitor compliance, enforce regulations, and protect consumer rights. They also present opportunities for international collaboration, allowing policymakers to share best practices and harmonize regulations.

Key Regulatory Measures and Guiding Principles to Foster Positive and Inclusive Impact of Transformative Technologies



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- 1- **Comprehensive Standards and Guidelines:** Regulators are called to establish clear standards and guidelines governing the development and deployment of transformative technologies. These standards should encompass principles such as fairness, transparency and accountability, by adhering to these guidelines, regulators can ensure that transformative technologies are used responsibly and contribute towards sustainable socio-economic market practices.
- 2- **Continuous Monitoring and Evaluation:** Regulators should implement robust monitoring and evaluation mechanisms to assess the impact of regulatory measures on the adoption and use of transformative technologies. This includes monitoring trends, conducting impact assessments, and soliciting feedback from stakeholders to identify potential risks and opportunities for improvement. By continuously monitoring and evaluating regulatory measures, regulators can adapt their approaches to ensure that transformative technologies foster positive outcomes and promote inclusivity across society.
- 3- **Inclusive Stakeholder Engagement:** Regulators should prioritize inclusive stakeholder engagement throughout the regulatory process. This involves requesting inputs from a diverse range of stakeholders, including industry representatives, civil society organizations and academia, among others. By incorporating diverse perspectives, regulators can better understand the potential impacts of transformative technologies on different segments of society and design regulations that address their needs and concerns.
- 4- **Ensure Transparency, Data Protection, and Cybersecurity:** Mandate transparency in technology operations and decision-making to ensure accountability, strengthen data protection and privacy regulations to safeguard individual rights and build public trust, and implement robust cybersecurity standards to protect against emerging threats and ensure the resilience of critical infrastructure.
- 5- **Promote Public Engagement and Adaptive Regulatory Frameworks:** Foster public engagement and digital literacy through education and awareness campaigns to ensure inclusive technology adoption. Develop flexible and adaptive regulatory frameworks that can be updated as technologies evolve and new challenges emerge.
- 6- **Encourage Collaboration and International Cooperation:** Facilitate interdisciplinary collaboration between policymakers, technologists, and other stakeholders to address the multifaceted impacts of transformative technologies. Engage in international collaboration on regulatory standards to ensure consistent and effective governance of global technologies.



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Driving Positive Behaviors of Market Players and Minimizing Risks While Maximizing Benefits

- Encouraging market players to adopt positive behaviors can be done by promoting transparency and accountability in their use of transformative technologies. This can be achieved through regulatory requirements for transparent reporting of data usage, data-based decision-making processes, and adherence to ethical guidelines. By holding market players accountable for their actions and decisions, regulators can foster a culture of responsibility and trust, driving positive behaviors that prioritize social impact. In addition, providing incentives for market players to engage in responsible innovation promotes positive social impact.
- This can include tax incentives, grants, or recognition programs for companies that develop and implement transformative technologies in ways that benefit society while mitigating potential risks. By rewarding positive behaviors, regulators can motivate market players to invest in innovative solutions that drive positive change and maximize the benefits of transformative technologies. Regarding the coexistence of risk minimization and benefit maximization, prioritizing capacity building and knowledge transfer initiatives is crucial to equip stakeholders in emerging economies with the skills and resources needed to effectively implement transformative technologies.
- This can include providing training programs, technical assistance, and access to relevant resources and expertise. By enhancing the capacity of local governments, businesses, and communities to understand and use transformative technologies responsibly, regulators can reduce the risks of misuse or unintended consequences, while maximizing the benefits for economic development and social progress.

Jordan’s Initiatives and Strategies

Jordan is committed to leveraging transformative technologies for positive impact while addressing the challenges they pose. Key initiatives include:

1. **National Digital Transformation Strategy:** A comprehensive strategy to foster innovation, improve public services, and promote inclusive development.
2. **Collaborative Approach:** Active collaboration between public and private sector stakeholders to ensure a holistic approach to policy and regulation.



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3. **Investment in Infrastructure:** Significant investments in digital infrastructure, including broadband expansion, data centers, and cloud computing.
4. **Cybersecurity Framework:** Robust frameworks to protect critical infrastructure and ensure data security and privacy.
5. **Public Engagement and Digital Literacy:** Promoting digital literacy and public engagement through education and awareness programs.
6. **International Cooperation:** Active participation in international forums and initiatives to harmonize regulatory standards and share best practices.
7. **Support for Innovation and Entrepreneurship:** Initiatives such as the Emerging Technology Regulatory Sandbox and various innovation challenges to support startups and foster innovation in key sectors.