Session Outcome Document

Information and Communication Technologies (ICT) for global peace, prosperity, and security through the Internet of Things (IoT)

Internal Resources Division (IRD), Ministry of Finance, Bangladesh Secretariat, Dhaka, Bangladesh

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https://www.itu.int/net4/wsis/forum/2024/Agenda/Session/183

Moderator:

Engr. Md Selim Reza, System Analyst, Internal Resources Division, Ministry of Finance, Bangladesh

Panellists:

01. Ms. Cristina Bueti, Counsellor on Metaverse & Smart Cities, International Telecommunication Union (ITU), Geneva
02. Prof. Dr. Mostofa Kamal Nasir, Professor, Mawlana Bhashani Science and Technology University (MBSTU), Bangladesh
03. Engr. Selim Mahmud, Manager, BRAC Bank PLC, Bangladesh
04. Dr. Md M. Islam Bulbul, Program Manager, NNS at Ministry of Health and Family Welfare, Bangladesh
05. Dr. Tohfa - E – Ayub, Assistant Professor, Ibrahim Medical College (University of Dhaka), Bangladesh

Topics:

5G, Technology, Artificial Intelligence, Big Data, Blockchain, Cloud Computing, Cultural Diversity, Cybersecurity, Digital Divide, Digital Economy, Digital Inclusion, Digital Transformation, Education, Environment, Ethics, Health, Human Rights, Infrastructure, Machine Learning, Media, Smart Cities

WSIS Action Lines:

- C1. The role of governments and all stakeholders in the promotion of ICTs for development
- C2. Information and communication infrastructure
- C3. Access to information and knowledge
- C4. Capacity building
- C5. Building confidence and security in use of ICTs
- C6. Enabling environment
- C7. ICT applications: benefits in all aspects of life — E-government
- C7. ICT applications: benefits in all aspects of life — E-business
- C7. ICT applications: benefits in all aspects of life — E-learning

- C7. ICT applications: benefits in all aspects of life — E-health
- C7. ICT applications: benefits in all aspects of life — E-employment
- C7. ICT applications: benefits in all aspects of life — E-environment
- C7. ICT applications: benefits in all aspects of life — E-agriculture
- C7. ICT applications: benefits in all aspects of life — E-science
- C8. Cultural diversity and identity, linguistic diversity and local content
- C9. Media
- C10. Ethical dimensions of the Information Society
- C11. International and regional cooperation

Sustainable Development Goals

- Goal 1: End poverty in all its forms everywhere
- Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- Goal 3: Ensure healthy lives and promote well-being for all
- Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- Goal 6: Ensure access to water and sanitation for all
- Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all
- Goal 8: Promote inclusive and sustainable economic growth, employment and decent work for all
- Goal 9: Build resilient infrastructure, promote sustainable industrialization and foster innovation
- Goal 10: Reduce inequality within and among countries
- Goal 11: Make cities inclusive, safe, resilient and sustainable
- Goal 12: Ensure sustainable consumption and production patterns
- Goal 13: Take urgent action to combat climate change and its impacts
- Goal 14: Conserve and sustainably use the oceans, seas and marine resources
- Goal 15: Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss
- Goal 16: Promote just, peaceful and inclusive societies
- Goal 17: Revitalize the global partnership for sustainable development

Key Issues discussed:

- This session focused on the positive contributions that Information and Communication Technologies (ICT) and the Internet of Things (IoT) can make towards a more peaceful, prosperous, and secure world.
- Harnessing the Power of ICT and IoT. Cyber security is an essential investment.
- **Smart Cities:** Leveraging IoT networks to optimize traffic flow, manage energy consumption, and improve public safety.
- **Global Health Management:** Utilizing ICT for disease surveillance and healthcare delivery in remote areas.
- **Environmental Monitoring:** Employing IoT sensor networks to monitor environmental threats like deforestation and pollution.
- Sustainable Development and Global Collaboration and Standards
- Data Privacy, Security and Cybersecurity Threats

Towards WSIS+20 and WSIS beyond 2025, our views on the emerging trends, challenges, achievements, and opportunities in the implementation of the WSIS Action Lines to date:

- **Bridging the Digital Divide:** Unequal access to ICT remains a major hurdle. While infrastructure expansion is crucial, fostering digital literacy programs is equally important to ensure people can actively participate in the digital world.
- **Prioritizing Cybersecurity:** The ever-growing interconnectedness of devices necessitates robust cybersecurity measures. International collaboration is vital to develop and implement best practices for securing IoT networks and safeguarding sensitive data.
- **Promoting Responsible Innovation:** As AI and IoT continue to evolve, ethical considerations must be at the forefront. Also need to ensure these technologies are developed and deployed responsibly, addressing issues like algorithmic bias, privacy concerns, and environmental sustainability.
- **Smart City Deployments:** Cities worldwide are leveraging IoT networks to optimize traffic flow, manage energy consumption, and enhance public safety. These deployments demonstrate the potential of ICTs for improving urban life.
- **Global Health Initiatives:** Projects like the INDEPTH network exemplify the power of ICT for strengthening disease surveillance and healthcare delivery in remote areas. Such initiatives highlight the positive impact of ICTs on global health outcomes.
- **The Road Ahead:** By addressing the ongoing challenges and seizing the opportunities presented by emerging trends, that can create a future aligned with the WSIS vision.
- **Technology as an empowering force:** ICTs should foster collaboration, enable participation, and unlock new possibilities for individuals and communities.
- **ICTs for a more peaceful and prosperous world:** ICTs can contribute to sustainable development, bridge divides, and promote peace and security for all.
- Through continued collaboration and innovation, that can leverage the power of ICTs to build a better world for everyone.

Tangible outcomes along with key achievements, announcements, launches, agreements, commitments, figures, and success stories:

- **Increased International Collaboration on Cybersecurity:** Establishment of a permanent international cyber forum or working group dedicated to sharing best practices for securing IoT networks, fostering joint vulnerability research, and coordinating responses to major cyberattacks.
- **Digital Literacy Initiatives Reach Millions:** Launch of a global digital literacy program, reaching millions of individuals in underserved regions with basic computer skills training, online safety education, and responsible technology use practices.
- **Smart City Deployments Showcase Efficiency and Sustainability:** City successfully implements an IoT-powered traffic management system, resulting in reduction in traffic congestion and decrease in carbon emissions.
- **Global Health Network Expands Reach:** The INDEPTH network expands its reach to additional countries, leveraging IoT for disease surveillance and improving healthcare delivery in remote areas.
- **Development of Ethical Frameworks for AI and IoT:** A leading international organization releases a comprehensive set of ethical guidelines for the development and

deployment of AI and IoT solutions, focusing on responsible data collection, algorithmic fairness, and user privacy.

Actionable plan and key recommendations:

 Prioritize Global Cybersecurity:

- Foster international collaboration to develop and implement best practices for securing IoT networks and protecting data. This includes sharing information on cyber threats and vulnerabilities, and coordinating defensive measures.
- Promote public awareness of cyber security threats and best practices for staying safe online. Also achieved through educational campaigns and public outreach programs.

 Bridge the Digital Divide for Inclusive Development:

- Invest in expanding internet infrastructure, particularly in underserved regions.
- Develop and implement digital literacy programs to ensure everyone can participate in the digital world. This includes training on basic computer skills, online safety, and responsible use of technology.

 Promote Responsible Innovation in ICT and IoT:

- Develop ethical frameworks for the responsible development and deployment of ICT and IoT solutions. These frameworks should address issues like algorithmic bias, privacy concerns, and environmental sustainability.

Suggestions for thematic aspects that might be included in the WSIS Forum 2025:

- The WSIS Forum 2025 could delve deeper into the transformative potential of ICT and IoT. A key theme could be the responsible integration of Artificial Intelligence (AI) with IoT. This session could explore how this convergence can address global challenges like climate change and healthcare disparities. In today’s digital economic era, cyber security has become a vital and non-negotiable element for running an organization. Discussions on mitigating potential risks, such as algorithmic bias and privacy concerns, would be crucial to ensure these technologies serve humanity's greater good. Sustainable development is promoted through environmental monitoring, resource management, and global collaboration on IoT standards. Finally, addressing data privacy, security, and cybersecurity threats is essential to protect IoT environments and build trust. Together, these aspects illustrate how IoT can drive global peace and prosperity by creating more resilient, equitable, and efficient systems.