Working Group 9 - Governance of Emerging Technologies: Quantum & AI

Breakthrough developments in quantum computing and artificial intelligence (AI) have led to recent global policymaking efforts and discussions regarding governance issues. The critical security implications of these technologies require further attention of stakeholders as these technologies continue to advance and be commercialized.

There is increasing attention both from tech companies, in terms of investment, and from policymakers through regulation such as the European Union's AI Act which is now being drafted and the proposed Algorithmic Accountability Act in the USA. There are also important technical developments in the quantum technology field. Although some of the safety and security discussions revolve around the potential use of quantum computing, current developments in different quantum technology domains such as quantum computing, quantum networks, and quantum sensing indicate that certain applications of quantum technologies will be more eligible for commercialisation than others. The cybersecurity community has already highlighted the importance of investment in post-quantum encryption for assuring future safety and security of the digital world.

This working group of the UN Internet Governance Forum's Dynamic Coalition on Internet Standards, Security and Safety (IS3C) aims to develop a roadmap for governance strategies for emerging technologies, focusing on quantum and AI technologies. The roadmap will set out the roles of governments, the private sector, and civil society stakeholders, and will be based on lessons learned from previous governance efforts relating to complex technologies such as automated systems.

The goals of IS3C's working group include:

- raising awareness of the security and safety issues relevant to policy decisions for Quantum and AI technologies;
- investigating emerging issues that would require the attention of stakeholders, with inputs from the public and private sectors, including the technical community, and from civil society;
- developing policy recommendations and guidelines as IGF outcomes that will assist governments, regulators and private sector entities in policymaking and standard-setting efforts relating to quantum and AI governance.

It is envisaged that the deliverables of this working group will include:

1. mapping current risks and opportunities associated with quantum and AI technologies;

2. publication of a comparative report of existing frameworks with the aim of delivering policy recommendations;

3. standardization guidelines based on the policy recommendations.