Session Sketch

Asan Plenum 2019: "Korea's Choice" *www.asanplenum.org*

Session: Technology Competition or Cooperation? Date/Time: April 24, 2019 / 13:30-15:00

Rapporteur:

Peter Lee, Australian National University

Moderator:

Lee Dongmin, Dankook University

Speakers:

Tai Ming Cheung, University of California, San Diego Min Eun Joo, World Intellectual Property Organization Judicial Institute Michael Sulmeyer, Center for Security and Emerging Technology, Georgetown University Yaacob Bin Ibrahim, Singapore Institute of Technology

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Session 3 on "Technology Competition or Cooperation?" discussed the impact that emerging technologies such as 5G, artificial intelligence, robotics, quantum computing, and autonomous systems were having on East Asia's geopolitical landscape. Rapid advances in cyber security capabilities as well as growing competition over intellectual property were also highlighted as important indicators of the shifting center of gravity towards East Asia, most visibly associated with the rise of China. Dr. Lee Dongmin opened the session by noting that these new technologies would dominate how states approached the Fourth Industrial Revolution.

Dr. Tai Ming Cheung focused on how China's rise and growing competition with the US was significant given that it now encapsulated both the Cold War geo-strategic competition of US-Soviet Union relations and the geo-economic competition of US-Japan relations of previous decades. Dr. Cheung described China as a "technology security state" which focuses on national security, while using economic and technological capabilities in support of national security. He observed that China was pursuing a "selective authoritarian mobilization model" with regard to technology whereby Chinese officials was selecting key areas where they could deploy resources, such as AI, and promoting a top-down investment in contrast to the market-driven bottom-up process of technological development in the West.

Dr. Min Eun Joo outlined the current state of intellectual property rights and how it signified broader trends in technological innovation. Dr. Min noted that of the 3.2 million national patent applications internationally last year, China accounted for 1.4 million, with the US and South Korea coming second and fourth, respectively. She added that this was an important reflection of extraordinary geopolitical transformations and the shift from the West to the East. Dr. Min added that states nonetheless continued to engage with existing institutions

^{*} The views expressed herein are summaries and may not necessarily reflect the views of the speakers or their affiliated institutions.



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such as the WTO to protect their intellectual property rights, but that there was a trend towards more protectionist positions.

Professor Michael Sulmeyer next provided an overview of a specific case of technological competition in cyber attacks. Professor Sulmeyer explained how the "Not Petya" cyber attack by Russian actors represented an example of indiscriminate destruction which led to over \$10 billion in damage globally. He added that the international reaction to the attack, with multilateral diplomatic efforts led by 10 countries, highlighted an example of possible future responses to such attacks.

Finally, Professor Yaacob Bin Ibrahim focused on how data protection and cyber security were two key issues where technological competition could be shifted towards cooperation. Professor Yaacob emphasized that there was a lack of global consensus on the appropriate norms governing these changes and how states should behave. In particular, he noted that there needed to be a proper discussion on what degree of regulation was required on emerging platforms such as social media and data protection among stakeholders.

During the discussion section, the speakers discussed how diplomacy could help mitigate state insecurity and unclear intentions over emerging technologies, how technological change could promote innovation and development in other regions, as well as how technological competition needed to be understood in the context of both national security and economic growth.

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