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GA 1: Disarmament and International Security (DISEC)

Research Report

Topic 2: Debating the role of science and technology
in international security and disarmament



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Introduction

The role of science and technology in international security and disarmament has been a highly debated topic within and outside The United Nations. As the pace at which science and technology develop is rapidly accelerating, the need for international policies and agreements becomes much more relevant. New possibilities and innovations bring many new aspects into consideration when debating topics such as this. For this reason, past policies are constantly being reexamined and changed as they become irrelevant with more modern technology.

The digitalising of the world is an ongoing process in current times, where almost everything from banking and monetary aspects to governance of a country is being digitalised rapidly, the growing science and technology also, undoubtedly, has pros and cons. Sometimes the cons can be destructive on a large scale, and therefore, awareness about the negative side of science and technology must be discussed about.

Definition of Key Terms

Weapons of Mass Destruction:

A biological, chemical, nuclear or radiological weapon used to target a large amount of people, typically civilian.

High Technology Transfer:

When highly advanced technology is transferred, often from developed to developing countries to assist them with boosting their economy.

Background Information

The topic was first brought up in 1988 by India. Within that resolution, the main focus was on how rapid growth and development of new weapons such as the graduated use of nuclear explosive power, miniaturisation and large-scale computing capabilities using micro-electronics, and fuel and laser technology were transforming the security environment. This would create uncertainty and insecurity.

The General Assembly as well as the First Committee on Disarmament have hosted many of these debates in the past, but with the ever-changing circumstances of politics and scientific innovation, none were particularly successful. Even though science and technology are both considered neutral, their impact on international security has been under scrutiny due to how complex and widespread civilian and military technology has become.

The debates held usually entail discussions about the regulation of high technology transfers and ensuring the peaceful use of scientific and technological advancements.¹² The sheer number of resources obtained due to technological advancements makes the topic of scientific development a well discussed one.

With increasing technological advancements, however, also comes increasing threats of danger to humanity in the form of warfare weapons such as nuclear warheads, biological and chemical weaponry, and other such weapons of mass destruction. This increases the need for regulation and supervision of science and technology when it comes to international security and disarmament, as it might lead to catastrophic consequences.

Major Countries and Organisations Involved

India: One of the first countries to put forward the issue in the form of a resolution in the UN. The resolution was co-sponsored by Bangladesh, Bhutan, Burkina Faso, Congo, Cuba, Dominican Republic, Fiji, Guyana, Haiti, Indonesia, Iran, Jordan, Kenya, Lesotho, Libya, Madagascar, Malaysia, Marshall Islands, Mauritius, Namibia, Nauru, Nepal, Nigeria, Pakistan, Peru, Singapore, Solomon Islands, Sri Lanka, Sudan, Vietnam and Zambia.³

UNIDIR: United Nations Institute for Disarmament Research is an institute within the UN that functions in order to proceed with research on Disarmament and International security issues.

¹ *The Role of Science and Technology in the Context of International Security and Disarmament – UNODA.* disarmament.unoda.org/topics/scienceandtechnology/.

² “First Committee Coalesces around UN Disarmament Machinery Drafts, but Differences Persist over ‘ICT’ Security, Regional Disarmament in Mediterranean Region | UN Press.” *Press.un.org*, press.un.org/en/2023/gadis3732.doc.htm. Accessed 12 Jan. 2024.

³ Bangladesh, et al. *L.50 : Role of Science and Technology in the Context of International Security and Disarmament. Statement by Mr. Rakesh Sood, Permanent Representative to the Conference on Disarmament.* 2002, www.pminewyork.gov.in/pdf/uploadpdf/2227930.pdf.

The independent research conducted by them is essential for the UN to deal with the rapidly growing technological aspects of the world.⁴

Other countries: Countries such as Japan, The United States of America, South Korea, Germany, The United Kingdom, China, Russia, Israel are few of the most technologically sound countries, with an inclining trend of scientific development

Relevant UN Resolutions

[43/77 A](#)

This resolution was adopted and called for the UN Secretary-General to keep track of scientific and technological advancements and evaluate them in a report about their impact on international security. This report, submitted on 17 October 1990 convinced the General Assembly that more attention was needed in “*monitoring*” and understanding such developments.

[A/RES/49/68](#)

On 15 December 1994, the General Assembly adopted the important resolution that largely focused on high-technology transfers. It covered the rough guidelines that should be followed when transferring such technology, while affirming how critical such transfers can be for countries with less developed technology.

[A/77/36](#)

Discussion of developments in the field of information and telecommunications in the context of international security was the purpose of this resolution.

[A/77/37](#)

The purpose of this resolution was to identify a programme of action to advance responsible State behaviour in the use of information and communications technologies in the context of international security.

[A/RES/76/19](#)

Developments in the field of information and telecommunications in the context of international security, and advancing responsible State behaviour in the use of information and communications technologies is the purpose of this resolution.

[A/RES/73/266](#)

⁴ “UNIDIR | the United Nations Institute for Disarmament Research.” *Unidir.org*, unidir.org/

Advancing responsible State behaviour in cyberspace in the context of international security to achieve global coordination when it comes to cybersecurity.

Previous Attempts to Solve the Issue

In December 2018, through resolution 73/27 , the General Assembly established an Open-Ended Working Group (OEWG) , which is open to all Member States. The Group began its work in 2019 and held intersessional consultative meetings with industry, civil society, and academia. The Group adopted a report by consensus at its final session in March 2021 (A/75/816). The final report and the recommendations contained therein were endorsed in General Assembly decision 75/564.

In 2020, the General Assembly through resolution 75/240 , established a new five-year OEWG on security of and in the use of information and communications technologies. This OEWG will meet regularly through 2025.

In 2022, a General Assembly resolution entitled “Programme of action to advance responsible State behaviour in the use of information and communications technologies in the context of international security” was adopted for the first time as A/RES/77/37. The resolution requested a report of the Secretary-General on the proposal, taking into account the views submitted by States (A/78/76).⁵

Possible Solutions

Science and technology can be a very valuable tool to use in terms of international security and disarmament because of the potential it has shown in recent times. The utilization of advanced internet and AI-platforms can greatly enhance national and international discussions, as well as promote expert and public engagement. The concept of blockchain diplomacy, with secure dialogue results and Smart Contracts for agreements, has the potential to replace traditional paper treaties.

Science and technology, when used properly, can act as a guiding principle for world peace, it can act as a guideline and a boundary that would keep countries in check. A solution to the threat of misuse of science and technology is to convince governmental organisations to create committees for the purpose of monitoring the use of science and technology in important realms of world politics. This includes defence, governments, and other political positions.

Discussions in UN meetings about the new and developing AI mechanisms and their regulation is also a good way to ensure that AI, a powerful tool available to even common man, will not

⁵ *Developments in the Field of Information and Telecommunications in the Context of International Security – UNODA*. disarmament.unoda.org/ict-security/.

be used with any malicious intent. Especially concerning matters of international security. Committee meetings about disarmament and how science could affect them would also be an effective way to bring about awareness about the issue.

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