



Remarks by Ms. Izumi Nakamitsu

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International Conference on

“Capturing Technology. Rethinking Arms Control”

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His Excellency Minister Maas,

Her Excellency Minister Wallström,

His Excellency Minister Blok,

Distinguished guests, ladies and gentlemen.

It is a great privilege to participate in this important conference. Many of us feel a growing sense of unease about the challenges rapid technological developments pose to disarmament, arms control and international peace and security, so I congratulate Germany for seeking to address that unease through this event. The international community urgently needs to explore, articulate and confront these issues at the highest level. Because one thing is clear: the march of technology waits for no one.

Although we will focus today on the challenges presented by a few of these technologies, I want to make clear that these developments affect the entire breadth of disarmament, arms control and non-proliferation – from small arms and light weapons to weapons of mass destruction. I also want to stress that these developments not only create challenges, but also provide opportunities to think about how to revitalize what is, frankly, an increasingly besieged regime.

As Secretary-General Guterres told the Conference on Disarmament in Geneva less than one month ago, we need a new vision for arms control in today’s complex security environment, while taking care to preserve the hard-won gains of



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yesterday.

In May last year, the Secretary-General released his Agenda for Disarmament, Securing Our Common Future. He was compelled to embark on this initiative for a number of reasons. Two of those are of direct relevance to this conference.

First, in the face of a manifest deterioration in great power relations on matters of international peace and security coupled with a severe erosion of trust, the key multilateral disarmament bodies remain hamstrung. Moreover, key States seem disinterested in pursuing or even preserving the arms control and disarmament infrastructure that has been indispensable to global security.

Second, the design and acquisition of new weapon technologies with unclear and potentially dangerous applications is outpacing our normative efforts for their control and regulation. This trend is aptly demonstrated by the four sectoral areas highlighted by this conference, each of which are covered in the disarmament agenda, as I will briefly outline.

Malicious acts in cyberspace, exacerbated by our growing dependence on that realm, are undermining trust between States. Critical infrastructure that is connected through cyber technologies, ranging from the financial sector to power grids to nuclear facilities, make for potentially vulnerable targets. Moreover, the political and technical difficulty of attributing and assigning responsibility for cyberattacks could result in significant consequences, including unintended escalation.

Our excitement at the astounding advances in biotechnology over recent years are tempered by grave concerns at their clear potential for misuse. Previous barriers to the acquisition of biological weapons are being eroded by advances such as genome editing. Such techniques can moreover modify biological agents in ways that would enhance their utility as weapons.

Developments in artificial intelligence research are driving interest in



autonomy in weapons and other military applications. The possible implications are vast and still not well understood.

Increasing autonomy in the critical functions of weapons systems raises serious questions for existing legal frameworks and how to ensure human accountability for the use of force. And there are profound ethical questions about outsourcing life and death decisions to algorithms.

Operationally, the growing military adoption of AI technologies is bound to increase the speed of decision-making and action in conflict, with concomitant challenges for escalation control.

Likewise, new missile technologies such as hypersonic boost-glide systems promise to shorten reaction times. The pursuit of these weapons has taken on an unsettling arms-racing character that is problematic for international peace and security and is undermining prospects for much needed strategic arms reduction agreements to succeed New Start.

And unlike the other areas of technology under discussion at this conference, there is no United Nations process for considering hypersonic weapons, or the problem of missiles more broadly.

That is why my office, together with the United Nations Institute for Disarmament Research recently published a study on hypersonic weapons. The study makes the case for multilateral discussion of hypersonic weapons, the development of which cannot be seen in isolation from the current deterioration in strategic arms control. I hope this possibility can be further discussed by the relevant panel later today.

On cyber, the UN General Assembly established two separate processes on information and communication technologies in the context of international security last year: a 25-member group of governmental experts and an open-ended working group, with the participation of all Member States.

Though we had initially hoped that the two processes could be reconciled



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into one, this did not prove possible. Now that the two processes have been established, I urge all States to engage in good faith in both. Member States should feel invested in the success of both groups, which are both after all seized with the ultimate goal of taking this urgent issue forward at the global level.

The Biological Weapons Convention, although over 40 years old, continues to adapt to the dramatic advances in biology. The new BWC intersessional programme agreed in late 2017, features specific Meetings of Experts, including one dedicated to reviewing advances in science and technology. The first round of Meetings of Experts was welcomed by participants as it saw detailed technical discussions on such advances. I hope that this year's Meetings of Experts are able to build on the discussions that took place last year. It will be important for States Parties to identify areas in which action can be taken now, as well as maintaining a watching brief on issues which may mature in time for the next BWC Review Conference in 2021.

On autonomous weapons, we meet today on the eve of the next meeting of the Group of Governmental Experts on this topic under the auspices of the Convention on Certain Conventional Weapons.

The Secretary-General has staked out a strong position. He has stated that the existence and use of autonomous weapons with the discretion and capacity to take human lives is politically unacceptable, morally repugnant and should be banned. My office stands ready to support the efforts of Member States to build on the commonalities identified last year and elaborate new measures to ensure that humans remain at all times in control of the use of force.

Ladies and gentlemen

Disarmament and arms control have to a degree always been about managing the military uptake of new scientific and technological advances. The very first resolution of the General Assembly sought to deal with “the problems raised by the discovery of atomic energy”, including through the “elimination from



national armaments of atomic weapons and of all other major weapons adaptable to mass destruction”.

When the General Assembly established the current disarmament machinery in 1978, it stressed the need for negotiations on limiting and ceasing the development of new means of warfare so that “scientific and technological achievements may be used solely for peaceful purposes”.

However, recent developments in the weaponization of scientific and technological innovations differ in certain key aspects from those that we have previously faced.

The first key distinction is that ours is an increasingly networked society that is promoting a “democratization” of technological dissemination. Barriers to understanding and using technology with significant potential ramifications are lower than ever before, including for non-state actors such as criminal and terrorist groups.

Second, we are witnessing the introduction of transformative “general purpose” technologies into society, such as ICT technologies and the suite of tech that falls under the banner of AI. Seeking to address the challenges posed by these innovations is less akin to nuclear arms control and more like confronting the weaponization of electricity or the internal combustion engine.

Third, and related, much of the technology we are concerned about today is being developed and produced for non-military purposes by civilian companies, not traditional military contractors.

Fourth, unlike previous military revolutions, the possible impact we might face in the near future could qualitatively change how we fight a war. Many of these new weapons will not only have greater destructive capabilities or greater speed of delivering destruction, but they may also change the nature of destruction and disruption inflicted in our lives. And much of the possible impact remains unclear and unpredictable, leading to that uncanny sense of unease I mentioned



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earlier.

All of this behooves us to ask whether our existing disarmament machinery is still fit for purpose.

I, for one, think it is fair to say that business as usual is not going to cut it.

Thus, I feel that we need to ask ourselves some fundamental questions. How can our existing mechanisms and approaches be augmented, improved and evolved to effectively meet the challenges of today? What is required to diminish the dangers posed by new weapons and, therein, the prospect of armed conflict? Do we need new approaches to complement existing ones or to fill gaps? Who should be part of discussions on these arrangements?

As I have said before, I believe we need to consider a broad spectrum of responses, from self-regulation, to political and normative initiatives such as transparency and confidence-building measures, and legally binding instruments, if required. And it will probably be important for us to think about how the strategic combinations of these various measures and instruments will tackle the complex array of new and old types of threats in the 21st century.

But first, we need a much better understanding of the challenges we face.

One obvious problem is that we continue to address many of these developments in silos without a view to convergences in how they are used and their potential effects.

To gain that insight we need better engagement with the private sector and academia. This is important not only to ensure that multilateral deliberations are adequately informed in the face of ever-accelerating technological development, but also that technical communities are aware of the context or possible consequences of their work.

For this reason, the Secretary-General committed in his disarmament agenda to work with scientists, engineers and industry to encourage responsible innovation and dissemination of scientific knowledge.



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Secondly, we should embark on a thorough examination of arms control measures that have worked in the past to gauge their utility for addressing modern challenges. For example, can some of the Confidence Building Measures developed during the Cold War help us today? I'm thinking of measures such as dialogues between the relevant military actors or transparency in the development and deployment of new weapons.

Thirdly, let's think about how developments in science and technology can help us achieve our disarmament, arms control and non-proliferation goals. For example, how can sensor networks, data analysis, distributed ledger technologies and other innovations help us verify compliance with agreements and help rebuild trust?

As I said at the outset, technology poses challenges, but it also provides opportunities. The rise of novel threats gives us the opportunity to take a fresh look at our old tools. More importantly, they give us the chance to demonstrate how those old tools still have value and utility in managing emerging threats and building collective security. At a time when we need to refresh the argument for disarmament, arms control and the collective approach to security, these novel new threats may in fact help build the case, with our collective political will.

Thank you.