Mister Chairman, Distinguished Delegates, Ladies and Gentlemen,

I am not alarmed by the rise of autonomous weaponry and feel that existing international law and weapons review procedures serve an adequate regulatory function. Robots are already capable of killing people using sophisticated mechanisms and procedures that *resemble* those used by humans, and while most, if not all, are currently overseen by human operators at the moment that lethal action is taken, this is not strictly necessary and, in practice during times of hostile action, is of little value and perhaps even dangerous effect in the sense that humans are unable to rapidly process some forms of information required to maintain last minute veto action.

It would seem that Alan Turing was largely correct in predicting 'that by the end of the century the use of words and general educated opinion will have altered so much that we will be able to speak of machines thinking without expecting to be contradicted' (Turing 1950, p. 435). That is to say that many overestimate autonomous weapons in ascribing them near-human level capabilities. While we can model the brain and decision making to the point that these systems are capable of mimicking humans and finding solutions to killing people, sometimes in ways that seem on the surface to be 'unpredictable', humans very much remain in meaningful control of this process, even if not at the moment of lethal action. Indeed, it would be preposterous to overlook the role of programmers, engineers and others involved in building and maintaining these autonomous systems. No matter how 'intelligent' they may become or how well they 'learn', it is my opinion that machines will always lack consciousness and genuine human-level decision-making capability, meaning that robots will never take lethal action entirely outside of human control and that humans, and their interactions with machines, should always be the focus of our attention.

My fear is that attempts to define 'autonomy' and 'meaningful human control' in terms that are conducive to a complete prohibition on lethal autonomous weapons systems or threshold marking might distract nations from taking local regulatory action and hold back weaponry of significant value in limiting the damaging human footprint of war and improving international security, especially when one contemplates their use in controlled environments. I submit to you that the biggest risk to international security is not of unpredictable AI or robots proliferating to rogue states and non-state actors, but rather the proliferation of AI systems within established western armed forces, proliferation that diverts investment away from soldiers and impacts core combat proficiencies, limiting force readiness and/or degrading conventional warfighting capability that may need to be relied upon if autonomous systems fail or cannot be deployed in a particular conflict scenario. There are limits associated with all robotic solutions to military problems, related to sensor limitations, hacking, interoperability, cultural acceptance issues and more, any one of which could force states prepared for technological conflict to revert to more conventional warfare. All states must therefore determine how vulnerable they would be if they were to substantially invest in robotics only to find that the technology fails or is otherwise made redundant.

My major long-term concern is that if a number of armed forces were to develop an advanced lethal autonomous weapons force, the result could well be militaries that are collectively dominant against an all too particular type of enemy force in equally select theaters of war, but irrelevant to the emergence of non-state groups and

modern-day warrior societies that might one day need to be tackled with human soldiers rather than technology. Indeed, it would be all too easy for conflicts to be initiated with the view that they can be won by a roboticised force with a reduced number of humans placed in harm's way, only to find at a later stage that victory can only be achieved by committing a much greater number of soldiers or manned systems to the zone of hostile operations. Indeed, history is replete with examples demonstrating that investment in technology over human beings will not necessarily equal decisive victory. The conflicts in Vietnam, Kosovo, Iraq and Afghanistan are just a select few. It is now time to recognise that even when confronting an enemy with technological forces, there is a possibility that the distance-orientated autonomous warfare that robotics and other technologies enable could collapse into more traditional warfare where well-trained soldiers are required at an additional cost to any investment in technology, and that provisions for said personnel might not available in the required force generation cycle if a nation fails to prepare for such possibilities and allows autonomous weaponry to serve as a temporary and inadequate capability support mechanism while proper training is sacrificed and the atrophication of core combat, technical and moral skills sets in.

I detail this problem only briefly in highlighting that our ability to build and maintain true experience of the art of war faces barriers as traditional soldiering functions are handed over to machines and artificial intelligence, so much so that when coupled with the technological limitations of robotics, nations would be wise to add a new dictum to their strategic theorem: the risk of employing technology is that doing so may jeopardise the human component essential to the effectiveness of military forces, especially all-important land forces. This is very different to the suggestion that autonomous weaponry lacks meaningful human control and none of this is to suggest that states should avoid employing said weaponry, but rather that they should do so cautiously. I would suggest that further mapping of the 'critical functions' associated with lethal autonomous weapons systems deployment would be most useful in identifying areas that hold potential to decrease conventional combat capability and degrade force strength and readiness, assisting individual states in offsetting or avoiding the consequences of handing particular functions over to machines. To my mind, this is best achieved at a national-level given the variance likely to form as a result of differences in technology and the way in which it is employed.

Thank you,

Jai Galliott.