

THE WHITE HOUSE

WASHINGTON

January 16, 2017

Professor Stuart Russell
Computer Science Division
University of California, Berkeley
387 Soda Hall
Berkeley, California 94720

Dear Professor Russell:

Thank you for your and your colleagues' letter of April 2016, regarding U.S. policy on lethal autonomous weapons systems, and for meeting with members of my team last year. It is important for the United States Government to hear from leaders in the academic and business communities on matters of great public policy importance such as this, and we welcome the exchange of views.

Your letter raised some of the most profound questions we will face in the coming years. As artificial intelligence becomes more prevalent in civilian and military technologies, we must carefully consider the values that will be reflected in the machines we build. And as those machines become better at making decisions, we need to be clear on the limits we place on what we allow them to decide for us.

When it comes to military technology, our starting point has been and must remain compliance with the law of armed conflict. Throughout my Administration, I have emphasized the importance of conducting national security operations in a manner that is not only lawful but also, in important respects, is more protective than the safeguards required as a matter of law. Doing so helps protect our Nation's most cherished values and helps ensure that national security operations are both legitimate and sustainable. I can assure you that these same principles have guided our approach to policy formulation and weapons development related to weapons that use autonomy, and it is important that they continue to do so. Although I believe that it is premature to reach the conclusion that lethal autonomous weapons systems, if developed, could not be used consistent with the law of armed conflict, we certainly share the view that there is no place in the U.S. arsenal for weapons that cannot be used in a manner that complies with the law of armed conflict and is consistent with our values. This approach should govern other nations as well. At the same time, I recognize that the potential development of lethal autonomous weapons raises questions that compliance with existing legal norms – if that can be achieved – may not by itself

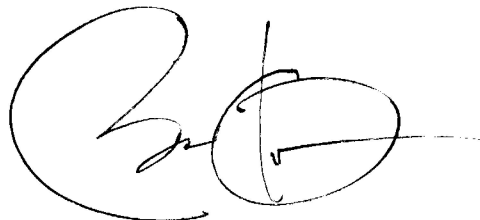
resolve, and that we will need to grapple with more fundamental moral questions about whether and to what extent computer algorithms should be able to decide whether to take a human life.

Working from this perspective, the Department of Defense is both committed to compliance with the law of armed conflict and proactively approaching issues relating to autonomy in weapon systems with prudence and foresight. Your letter mentions the departmental directive that establishes a number of requirements regarding the use of autonomy in weapon systems, including the need for system design to incorporate the necessary capabilities to allow commanders and operators to exercise appropriate levels of human judgment in the use of force. This policy is one important initiative undertaken during my Administration, but there have been others. For example, shortly after your visit to Washington, in preparation for the review of its policy, the Department of Defense began an assessment of the national security implications of lethal autonomous weapons systems and artificial intelligence technologies. That work is ongoing. We have also issued new detailed guidance for items controlled on the United States Munitions List. This guidance includes a review framework for any license request that would support foreign development of lethal autonomous weapons systems. Certainly, though, there is more work to be done, and some of it is already underway.

For example, High Contracting Parties to the Convention on Certain Conventional Weapons recently agreed, with the support of the United States, to establish a Group of Governmental Experts related to emerging technologies on lethal autonomous weapons systems. We believe that this is an appropriate next step as the international community considers the range of definitional and other questions pertaining to rules and norms in this area. We intend for the United States to be an active participant in these discussions. United States Government departments and agencies have also been directed to study further a number of critical questions related to this technology, including how we should define lethal autonomy, how it is likely to evolve over the next decade, what procedures, norms, and restrictions should be pursued with regard to its development, and how to address the pursuit of these weapons by our adversaries.

In closing, I want to thank you again for reaching out to me on this topic. I recognize that choices about how to regulate lethal autonomous weapons systems and attendant policies have deep and enduring implications for U.S. interests and values, as well as for international peace and security. Potential treaty commitments, regulations, and other controls – and related policy considerations – need to be considered by our highest civilian leaders, with the input of our military, foreign policy advisers, the scientific community, and, ultimately, the American people. I am grateful for your thoughtful engagement, and I wish you and your colleagues all the best.

Sincerely,

A handwritten signature in black ink, appearing to be "John F. Kerry". The signature is fluid and cursive, with a large initial "J" and "K".