Military networks elicit errors

October 3 2014

Military interventions in which allies work together supported by technology pose new requirements on the military personnel involved. Now, more than ever before, they must be able to make their own moral decisions. Technology philosopher Christine Boshuijzen states this in her PhD thesis Moral decision making in network enabled operations. Boshuijzen's research is part of the NWO programme Responsible innovation. She will defend her thesis on 6 October 2014 at Eindhoven University of Technology.

Nowadays, nearly all military operations are carried out by specialised military units from different countries. The international fight against ISIS, the anti-pirate mission off the coast of Somalia and the stabilisation mission in Mali are also being carried out in this manner. Allies with a different task are connected to each other in a network via modern communication technology and share all of the information available. According to Boshuijzen, this form of collaboration ('network enabled operations') runs the risk of wrong decisions. A well-known example of this is the German-American air attack in Kunduz in 2009. This led to the death of more than one hundred civilians who were mistakenly identified as Taliban fighters.

Three pitfalls

Military personnel must not lose sight of the guiding role of technology when taking [moral decisions](), says Boshuijzen. She highlights three pitfalls in particular.

A first pitfall is predator view. In this observers who view an event via technology can become so absorbed in their screen that they lose sight of what is happening elsewhere and therefore gain an oversimplified view of reality. This error is easily made if a commander uses images that are really intended for pilots, as was the case in Kunduz. He or she then risks losing the overview necessary to take the right decisions.

A second pitfall is the incorrect interpretation of real-time video images that have been made from helicopters or drones. Technology can unintentionally guide an observer's behaviour in a certain direction. For example, as heat images draw an observer's attention to a vehicle with its engine running (lots of heat) a playing child (little heat) might go unnoticed.

A third pitfall concerns the communication between collaborating allies who have a different background and function. Modern military action no longer proceeds via simple hierarchal lines but within complex consultative structures. For example, between pilots, commanders and military personnel on the ground who guide the fighter pilots. Not only do they have different roles, they may also originate from different countries. Their values, interests, mandates and procedures can conflict without this being explicitly obvious. Such tensions and a lack of clarity about which factors should weigh heaviest, mainly frustrates the decision-making process at lower hierarchal levels where military personnel must intervene directly in unexpected crisis situations.

American marines

This is the first time that the risks of networked operations have been studied in such great detail. Boshuijzen – who besides being a technology philosopher is also a mechanical engineer and in her spare time a military reservist – made a philosophical analysis of the psychological, social and technical aspects. She started her research by

observing several large field exercises at the training centre of the American marines in Monterey. She held in-depth interviews with military personnel and studied literature, including WikiLeaks documents. From this she gained a clear picture of the different cases in which military personnel made wrong decisions, sometimes with civilian casualties as a result. Boshuijzen's research is part of a broader study into 'moral fitness' of military personnel in the NWO programme Responsible innovation, under the leadership of technology philosopher Dr Lambèr Royakkers. In this project philosophers are working together with psychologists. Besides the universities of Delft and Eindhoven, TNO and the Netherlands Defence Academy are also involved in the project.

Provided by Netherlands Organisation for Scientific Research (NWO)