

Ethics of Artificial Intelligence and Big Data in Military and Humanitarian Health Care

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The ICMM Centre of Reference for Education on IHL and Ethics, in collaboration with the Swiss Armed Forces Medical Directorate, the Centre of Competence for Military and Disaster Medicine, and the Zurich Centre for Military Medical Ethics at the University of Zurich, organized its annual ICMM Workshop on Military Medical Ethics for the first time in Jongny, Switzerland. A total of 27 participants attended the workshop on site, with an additional 17 attending online. The topic of the workshop was the Ethics of Artificial Intelligence and Big Data in Military and Humanitarian Health Care.

While all agreed that recent technological advances in AI are impressive and that the promise of AI is manifold, the potential harms that AI could cause must be taken seriously. Thus, the workshop commenced with participants articulating concerns about the future regulation of AI through ethical and legal standards. This led to a constructive and open exchange of ideas on how AI might be used and how it might be regulated. The diverse backgrounds of the speakers and participants, including legal, medical, philosophical, and humanitarian experts, ensured thorough and often intense discussions, which were always conducted in an appropriate and constructive manner.



Several speakers described how AI is already being used by the military or is under active development, for example to support triage processes or to monitor individual health data. In these cases, the traditional principles of medical ethics still apply, and the danger of providing dual-use technologies should not be underestimated.

A positive example of the use of AI was an application to simplify the process of documenting attacks on health facilities by scanning news reports on the Internet for relevant content. However, it is also clear that AI is not yet accurate enough to replace humans and only works reliably in certain languages, leaving reports from many parts of the world inaccessible. This and other examples show that the integration of AI and human work can be seen as mutually beneficial, but that in most cases human review is still required. A human decision maker needs to stay "in the loop", also with regard to questions of attribution and responsibility. These issues were also highlighted in the more philosophical contributions to the workshop.

Other important questions discussed during the workshop are how reliable AI can ultimately be and how biases can be eliminated. Since it relies on statistical analysis, its result can only be as good as the data it is based on. How much error is acceptable? And is that margin of error still the same when it comes to life and death decisions? For example, when AI supports



decision making in military target selection or triage processes. These questions require further analysis, and the short time of the workshop was not sufficient to discuss them in the depth they deserve. More generally, it is also unclear to what extent we can or want to rely on technologies that require Internet connectivity and computing power in situations where these may not be as stable as they need to be.

At the end of the workshop, the Surgeon General of the Swiss Armed Forces, Andreas Stettbacher, posed a key question: "How can we regulate and control the behavior of machines in the future?" The workshop certainly helped raise awareness of ethical issues in AI and big data, and the book that will be produced as a follow-up to the workshop will hopefully contribute to the debate.

For more information on the workshop series, please visit the ICMM Center of Reference for Education on IHL and Ethics website at <https://workshop.melac.ch>. The next workshop in the series on military medical ethics will be held in Jongny, Switzerland, on June 19-21, 2025.

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