Towards a Data-Driven Military

A Multidisciplinary Perspective

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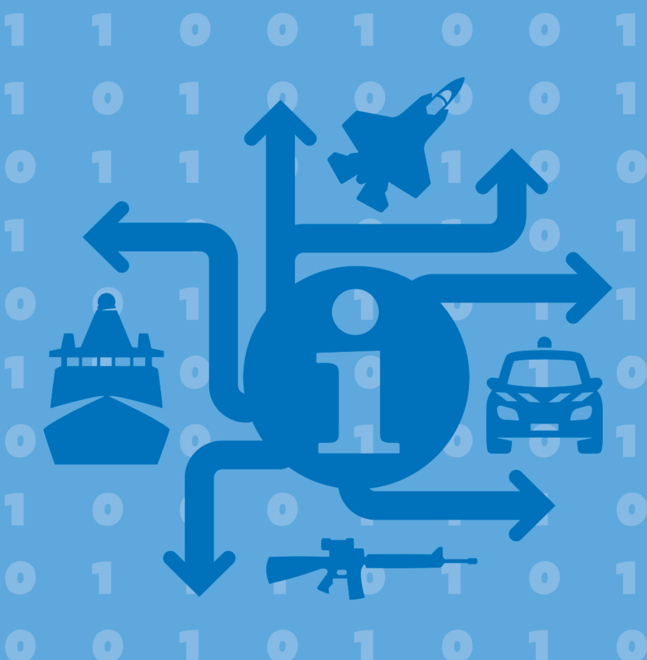

Edited by

PETER B.M.J. PIJPERS | MARK VOSKUIJL | ROBERT J.M. BEERES

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Foreword by the Dean of the Faculty, Prof. Dr. Patrick Oonincx

Every year the Faculty of Military Sciences at the Netherlands Defence Academy publishes the Netherlands Annual Review of Military Sciences. This year marks the starting point on a somewhat different approach. As of this year the series will address themes within society and the Ministry of Defence in particular from a multidisciplinary scientific point of view with contributions from all departments of our faculty.

This year we have chosen to study the use of data in the military, one of the keystones in the Defence Vision 2035. The current importance of data in the military cannot be overstated. Good intelligence in the Ukraine-Russian war will provide an advantageous position and satellite communications is available at places where regular means of communications are absent.

As a mathematician this topic reminds me of Alan Turing, one of the founding fathers of modern numerical mathematics and artificial intelligence (AI). Already in 1935 Turing described the contours of an abstract computing machine using a moving scanner to read and write symbols. During World War II he acted as a leading cryptanalyst at Bletchley Park improving issues of machine intelligence. Amongst others this led to development of an electromechanical machine called The Bombe for enciphering the German Enigma code. While this is a classical and early example of data in the military, nowadays data science and AI give rise to many new capabilities that need to be explored scientifically to properly understand their capabilities. This volume is a starting point on that scientific journey. Where Turing made the first steps into the world of data science, we embrace the topic and take it to a new level in the military with several studies, from technological fields including autonomous systems, to the fields of military management and war studies including addressing topical legal challenges related to the use of data.

The editors and authors were really challenged this year, but they succeeded in writing a volume that gives many answers to issues in relation to the topic of a data-driven military. I wish you interesting hours of reading the volume and do not hesitate to contact us for a deeper dive into any of the studies after reading about them.