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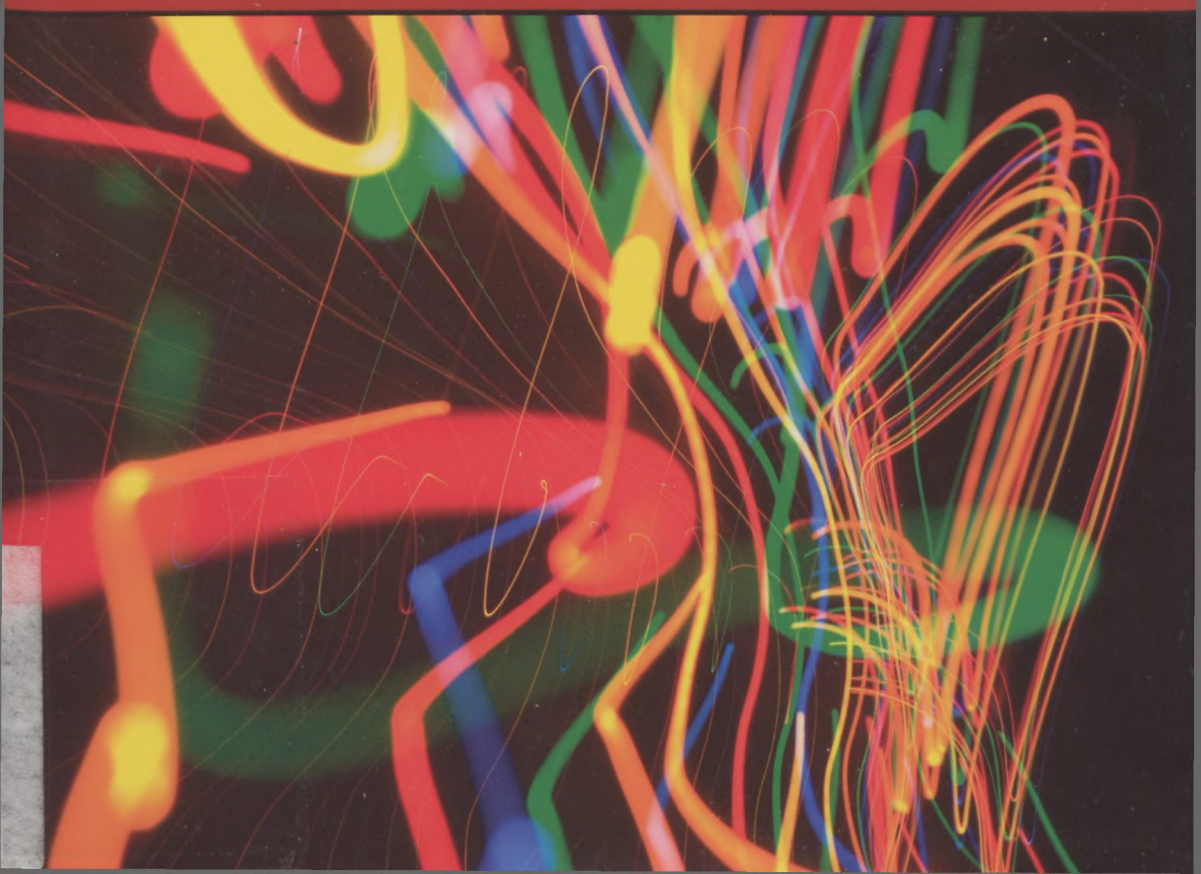
Cyber Operations and the Use of Force in International Law

Marco Roscini



The internet has changed the rules of many industries, and war is no exception. But can a computer virus be classed as an act of war? Does a Denial of Service attack count as an armed attack? And does a state have a right to self-defence when attacked in cyberspace? With the range and sophistication of cyber attacks against states showing a dramatic increase in recent times, this book investigates the traditional concepts of 'use of force', 'armed attack', and 'armed conflict' and asks whether existing laws created for analogue technologies can be applied to new digital developments.

The book provides a comprehensive analysis of primary documents and surrounding literature to establish whether and how existing rules on the use of force in international law apply to cyber operations. In particular, it assesses the rules of the *jus ad bellum*, the *jus in bello*, and the law of neutrality (whether based on treaty or custom), and analyses why each rule applies or does not apply in the context of cyber operations. Those rules which can be seen to apply are then discussed in relation to each specific type of cyber operation. The book addresses the key questions of whether a cyber operation amounts to a use of force and, if so, whether the victim state may exercise its right of self-defence; whether cyber operations trigger the application of international humanitarian law when they are not accompanied by traditional hostilities; what rules must be followed in the conduct of cyber hostilities; how neutrality is affected by cyber operations; and whether those conducting cyber operations are combatants, civilians, or civilians taking direct part in hostilities. The book is essential reading for everyone wanting a better understanding of how international law regulates cyber combat.

Dr Marco Roscini is Reader in International Law at the University of Westminster School of Law.

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MARCO ROSCINI

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For Ludovica, Federico and Margherita,
children of the Information Age

[E]ach period has had its own peculiar forms of War,
its own restrictive conditions, and its own prejudices.

Carl von Clausewitz, *On War,* Book VIII, Chapter III.B
(London: Kegan Paul, Trench, Trübner & Co, 1940), vol III, p 103

Contents

'Land, sea, and air are no more the only domains where ho
Cyberspace has now become the fourth dimension. Marco
Cyber Operations and the Use of Force in International Law
challenging subject. Taking into account recent state pract
traditional customary and treaty law to construe rules app
He examines all the main chapters of the law of armed conflict: *ju*
bello and the law of neutrality. A sound knowledge of the law of arm
the author to formulate a complete set of rules for cyber operations
realistic mode. Dr Roscini's book is to be recommended to the atte
legal advisors and to all concerned with planning defence operatio

Natalino Ronzitti, Professor Emeritus of International Law, LUISS University, Rome

'The present volume by Dr Marco Roscini is a systematic, up-to-date and well-informed analysis of the legal discourse that has taken place thus far. The author identifies the issues that have given rise to much discussion, marshals the evidence and provides a clear picture of where cyber operations stand in the overall scheme of the international law of armed conflict. This gives him an opportunity to delve into many controversial aspects of that law, irrespective of their kinetic/cyber application... The book surely sets the stage for the future encounter between law and reality.'
Yoram Dinstein, Professor Emeritus of International Law, Tel Aviv University, from the Foreword

'The increasing amount of cyber attacks and cyber exploitation operations by states and non-state actors calls for a comprehensive review of the current legal framework and its loopholes. Marco Roscini's admirable study of pertinent rules of international law, whether based on treaty or custom, underlines the applicability of existing law to new technological developments. His convincing examination of relevant rules of the *jus ad bellum*, the *jus in bello* and the law of neutrality will facilitate implementation of the law in a particularly complex environment and may also help to inform peacetime cooperation on cyber security for which sustainable efforts and effective new regulation are urgently required.'

Dieter Fleck, Former Director, International Agreements and Policy, German Ministry of Defence

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