ADVANCE PRAISE FOR

THREE TWEETS TO MIDNIGHT Effects of the Global Information Ecosystem on the Risk of Nuclear Conflict

"A gripping story of how social media can result in a nuclear catastrophe, either through a blunder or through the actions of a malignant provocateur. No issue could be timelier or more important, considering the profligate use of tweets today by the president and other government officials, and the need for deliberation in dealing with national security crises."

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Three Tweets to Midnight:

Effects *of the* Global Information Ecosystem *on the* Risk of Nuclear Conflict



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Hank J. Holland Lynde and Harry Bradley Foundation The Davies Family Robert and Marion Oster

The Stanley Center for Peace and Security, the Hoover Institution, and the Center for International Security and Cooperation at Stanford are pleased to collaborate in supporting this scholarship and bringing forward our collective understanding of its profound implications for the future of journalism, nuclear weapons policy, and international peace and security.

Three Tweets to Midnight

Effects *of the* Global Information Ecosystem *on the* Risk of Nuclear Conflict

EDITORS

Harold A. Trinkunas Herbert S. Lin Benjamin Loehrke

CONTRIBUTING AUTHORS

Kelly M. Greenhill Danielle Jablanski Jaclyn A. Kerr Mark Kumleben Jeffrey Lewis Herbert S. Lin Benjamin Loehrke Rose McDermott Ben O'Loughlin Paul Slovic Kate Starbird Harold A. Trinkunas Kristin Ven Bruusgaard Samuel C. Woolley

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Acknowledgments

This project began offline. Domestic and global political events in 2016 and 2017 shook loose much complacency about social media and their role in reshaping how the world interacts. While platforms such as Facebook and Twitter were once hailed as liberation technologies, scholars increasingly began to worry about how the rapid changes wrought by social media might also affect international security. An early example of the kinds of interactions made possible by the emerging global information ecosystem was the unprecedented and combative use of social media by the US president to directly talk about North Korea and its nuclear and missile programs. This raised the immediate question of how such communications would be interpreted in Pyongyang and whether direct, instantaneous, globally broadcast, and potentially escalatory rhetoric could make the outbreak of a catastrophic war with North Korea more likely.

Over an informal conversation in mid-2017 at Stanford University's Center for International Security and Cooperation (CISAC), the organizers of this project began to ask if nuclear crises, like the one brewing with the United States and North Korea, might be particularly susceptible to destabilizing effects from information driven through social media. Decisions on the use of nuclear weapons would be made under extreme stress, with imperfect information, potentially in just minutes, by a small group of advisers or a single decision maker. No decision would be more fraught, with millions of lives in the balance. Yet the psychology of it would be prone to leading decision makers to engage in heuristic thinking, leaving them vulnerable to emotional responses and misinterpretation.

x ACKNOWLEDGMENTS

How would 28o-character missives be read during a nuclear crisis? How might the new information ecosystem, as reshaped by social media, affect leaders and publics before and during crises? And how might digital misinformation and disinformation affect the likelihood of international conflict?

This volume, and the two multidisciplinary workshops that informed it, were the product of a partnership between the Stanley Center for Peace and Security, the Hoover Institution at Stanford University, and CISAC.

The Stanley Center for Peace and Security hosted an exploratory workshop at its Strategy for Peace Conference in October 2017, the observations from which were then summarized in a briefing paper titled "Three Tweets to Midnight: Nuclear Crisis Stability and the Information Ecosystem."¹ For more in-depth study of the arguments surfaced at that workshop, the organizers commissioned a set of working papers and hosted a second workshop at the Hoover Institution in September 2018. This volume is the culmination of the two events and features the contributions of authors for the 2018 workshop.

Participants in those workshops provided invaluable insights that shaped the trajectory of this project. For their contributions and thoughtful arguments, the editors thank James Acton, Jeffrey Berejikian, Malfrid Braut-Hegghammer, Paul Edwards, Jennifer Erickson, Henry Farrell, Anya Fink, Matt Fuhrmann, Tom Glaisyer, Deborah Gordon, Robert Gorwa, Andy Grotto, Rosanna Guadagno, Brian Hanson, Peter Hayes, Colin Kahl, Jennifer Kavanagh, Rupal Mehta, Anna Péczeli, Steve Pifer, Keith Porter, Philip Reiner, Scott Sagan, John Scott-Railton, Lior Tabansky, Phil Taubman, Devon Terrill, Ben Valentino, Heather Williams, and Amy Zegart.

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We would also like to acknowledge the work of the *Bulletin of the Atomic Scientists*, whose iconic Doomsday Clock provided an inspiration for the front cover of our book. The clock was conceived in 1947 by the *Bulletin* as a means of conveying to humanity the organization's collective expert assessment of the risks posed by nuclear weapons. Each year, the Science and Security Board of the *Bulletin* (of which one of the editors, Herb Lin, is a member) updates the Doomsday Clock. As of the time of writing in 2019, the clock stands at two minutes to midnight, the closest it has been since 1953. We share the concern of the experts and staff of the *Bulletin* over the growing risk of nuclear conflict, which was a major motivation for the writing of this volume. That its title is *Three Tweets to Midnight* reflects creative license rather than any disagreement by the editors with the assessment of the Science and Security Board of the *Bulletin Scientists*.

xii ACKNOWLEDGMENTS

Finally, we would like to be clear that the views expressed in this book are those of the editors and authors, and any remaining errors are ours alone.

> HAROLD A. TRINKUNAS HERBERT S. LIN BENJAMIN LOEHRKE

Notes

1. Stanley Center for Peace and Security, "Three Tweets to Midnight: Nuclear Crisis Stability and the Information Ecosystem," 58th Strategy for Peace Conference, January 2018, https://www.stanleyfoundation.org/resources.cfm?id =1646&title=Three-Tweets-to-Midnight:-Nuclear-Crisis-Stability-and-the -Information-Ecosystem.