

Law and Policy for the Quantum Age

It is often said that quantum technologies are poised to change the world as we know it, but cutting through the hype, what will quantum technologies actually mean for countries and their citizens? In *Law and Policy for the Quantum Age*, Chris Jay Hoofnagle and Simson L. Garfinkel explain the genesis of quantum information science (QIS) and the resulting quantum technologies that are most exciting: quantum sensing, computing, and communication. This groundbreaking, timely text explains how quantum technologies work, how countries will likely employ QIS for future national defense and what the legal landscapes will be for these nations, and how companies might (or might not) profit from the technology. Hoofnagle and Garfinkel argue that the consequences of CIS are so profound that we must begin planning for them today.

Chris Jay Hoofnagle is professor of law in residence at the University of California, Berkeley and affiliated faculty with the Simons Institute for the Theory of Computing. He is an elected member of the American Law Institute, and author of *Federal Trade Commission Privacy Law and Policy* (Cambridge University Press 2016). Hoofnagle is of counsel to Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP, and serves on boards for Constella Intelligence and Palantir Technologies.

Simson L. Garfinkel is a pioneer in digital forensics, with a career in technology spanning starting a local internet service provider in 1995 to academia and government service. Garfinkel holds a Ph.D. in computer science from the Massachusetts Institute of Technology, was a tenured professor of computer science at the Naval Postgraduate School, and now is a Senior Data Scientist at the U.S. Department of Homeland Security, a part-time faculty member at the George Washington University in Washington, DC, and a member of the Association for Computing Machinery's US Technology Policy Committee (ACM USTPC). He has authored and edited 16 books, over 100 scholarly articles, and is a fellow of both the ACM and the Institute of Electrical and Electronics Engineers (IEEE). This book is written in Simson Garfinkel's personal capacity and does not reflect the views or policy of the U.S. Government, the U.S. Department of Homeland Security, the U.S. Department of Commerce, or the U.S. Census Bureau.

Law and Policy for the Quantum Age

Chris Jay Hoofnagle

University of California, Berkeley

Simson L. Garfinkel



CAMBRIDGE UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom

One Liberty Plaza, 20th Floor, New York, NY 10006, USA

477 Williamstown Road, Port Melbourne, VIC 3207, Australia

314–321, 3rd Floor, Plot 3, Splendor Forum, Jasola District Centre,
New Delhi – 110025, India

103 Penang Road, #05–06/07, Visioncrest Commercial, Singapore 238467

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of education, learning, and research at the highest international levels of excellence.

www.cambridge.org

Information on this title: www.cambridge.org/97811088835343

DOI: [10.1017/9781108883719](https://doi.org/10.1017/9781108883719)

This work is in copyright. It is subject to statutory exceptions and to the provisions of relevant licensing agreements; with the exception of the Creative Commons version the link for which is provided below, no reproduction of any part of this work may take place without the written permission of Cambridge University Press.

An online version of this work is published at doi.org/10.1017/9781108883719 under a Creative Commons Open Access license CC-BY-NC-ND 4.0 which permits re-use, distribution and reproduction in any medium for non-commercial purposes providing appropriate credit to the original work is given. You may not distribute derivative works without permission. To view a copy of this license, visit <https://creativecommons.org/licenses/by-nc-nd/4.0>

All versions of this work may contain content reproduced under license from third parties. Permission to reproduce this third-party content must be obtained from these third-parties directly.

When citing this work, please include a reference to the DOI [10.1017/9781108883719](https://doi.org/10.1017/9781108883719)

First published 2022

A catalogue record for this publication is available from the British Library.

ISBN 978-1-108-83534-3 Hardback

ISBN 978-1-108-79317-9 Paperback

Cambridge University Press has no responsibility for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.