

Proceedings

EthiCS 2023

**The 2nd International Workshop on
Ethics in Computer Security**

February 27, 2023
San Diego, CA, USA

Published by the





Internet Society
11710 Plaza America Drive
Suite 400
Reston, VA 20190

Copyright © 2023 by the Internet Society.
All rights reserved.

This volume is published as a collective work. The Internet Society owns the copyright for this publication and the copyrights to the individual papers are retained by their respective author[s].

Address your correspondence to: NDSS Program Manager, Internet Society, 11710 Plaza America Drive, Suite 400, Reston, VA 20190 USA, tel. +1 703 439 2120, fax +1 703 326 9881, ndss@elists.isoc.org.

The papers included here comprise the proceedings of the meeting mentioned on the cover and title page. They reflect the authors' opinions and, in the interest of timely dissemination, are published as presented and without change. Their inclusion in this publication does not necessarily constitute endorsement by the editors or the Internet Society.

ISBN Number (Digital Format) 1-891562-85-1

Additional copies may be ordered from:



Internet Society
11710 Plaza America Drive
Suite 400
Reston, VA 20190
tel +1 703.439.2120
fax +1 703.326.9881
<http://www.internetsociety.org>

Table of Contents

Message from the Workshop Co-Chairs

Program Co-Chairs

Program Committee

Towards More Effective Responsible Disclosure for Vulnerability Research

Weiheng Bai and Qiushi Wu (University of Minnesota)

Ethical Challenges in Blockchain Network Measurement Research

Yuzhe Tang (Syracuse University), Kai Li (San Diego State University), and Yibo Wang and Jiaqi Chen (Syracuse University)

Operationalizing Cybersecurity Research Ethics Review: From Principles and Guidelines to Practice

Dennis Reidsma, Jeroen van der Ham, and Andrea Continella (University of Twente)

Understanding the Ethical Frameworks of Internet Measurement Studies

Eric Pauley and Patrick McDaniel (University of Wisconsin–Madison)

Message from the Workshop Co-Chairs

Ethics in computer security research are increasingly critical. Security research may not only involve human subjects and user data, thus is subject to ethics considerations, but also assess the security of computer systems by breaking them (i.e., offensive security research), which often raises ethical concerns. Unethical security research would cause significant harms to the society and in turn hurt the community. “Ethics in Computer Security Research” is still an under-studied area. Researchers may lack clear guidelines and resources. For instance, many research institutions still do not have IRB or the ethics-review board, and researchers are expected to properly handle ethical concerns on their own. Consequently, ethical concerns are not uncommon in security research. It is thus urgent for the community to provide ethical guidelines for international researchers and enforce ethics as a discipline.

This workshop aims to provide an international forum for researchers, practitioners, and administrators, from security and other areas, to bring and exchange perspectives, lessons learned, and new insights into the guidelines and practices of ethical computer security research. As a result, it expects to help generate new guidelines for future ethical security research, to call for resources assisting security researchers, and to raise awareness of even implicit ethical concerns.

This second iteration of the International Workshop on Ethics in Computer Security (EthiCS 2023) is co-located with NDSS 2023 and held on Monday, February 27th at the Catamaran Resort in San Diego, CA, USA. In this workshop, we are proud to offer presentations from the computer security community that provide unique insights into the ethical challenges that researchers face when conducting computer security research. More specific details about the workshop program include:

- 4 papers were accepted and will be presented at the workshop.
- 13 program committee members participated in the evaluation of paper submissions, including members from both academia and government.
- 1 paper was selected for the best paper award.
- 3 invited keynote talks will be presented from computer security leaders.
- 7 student workshop attendees were offered financial support to attend and participate in the workshop.

The workshop covers a range of important ethics topics including ethical frameworks for internet measurement, safe and ethical Tor research, ethical challenges in blockchain measurement, principles and guidelines for ethical computer security research, responsible disclosure of vulnerabilities, ethical cybersecurity education, and trust in language models. This wide range of topics demonstrates the broad importance of ethics across the computer security field and we hope that every attendee will be able to learn something valuable and relevant to their own work from the workshop.

Financial support for student workshop attendees was possible thanks to generous sponsorship from the National Science Foundation.

**Kangjie Lu, Yang Zhang, Rob Jansen
Workshop Co-Chairs, EthiCS 2023**

Program Co-Chairs

Kangjie Lu, *University of Minnesota-Twin Cities*
Yang Zhang, *CISPA Helmholtz Center for Information Security*
Rob Jansen, *U.S. Naval Research Laboratory*

Program Committee

Frank Li, *Georgia Institute of Technology*
David Evans, *University of Virginia*
Ruba Abu-Salma, *King's College London*
Gang Wang, *University of Illinois at Urbana-Champaign*
Enrico Mariconti, *University College London*
Sara Tehranipoor, *West Virginia University*
Allison McDonald, *Boston University*
Catherine Meadows, *Naval Research Laboratory*
Bradley Reaves, *North Carolina State University*
Haixin Duan, *Tsinghua University*
Lenzini Gabriele, *SnT/University of Luxembourg*
Fengwei Zhang, *SUSTech*
Neil Gong, *Duke University*