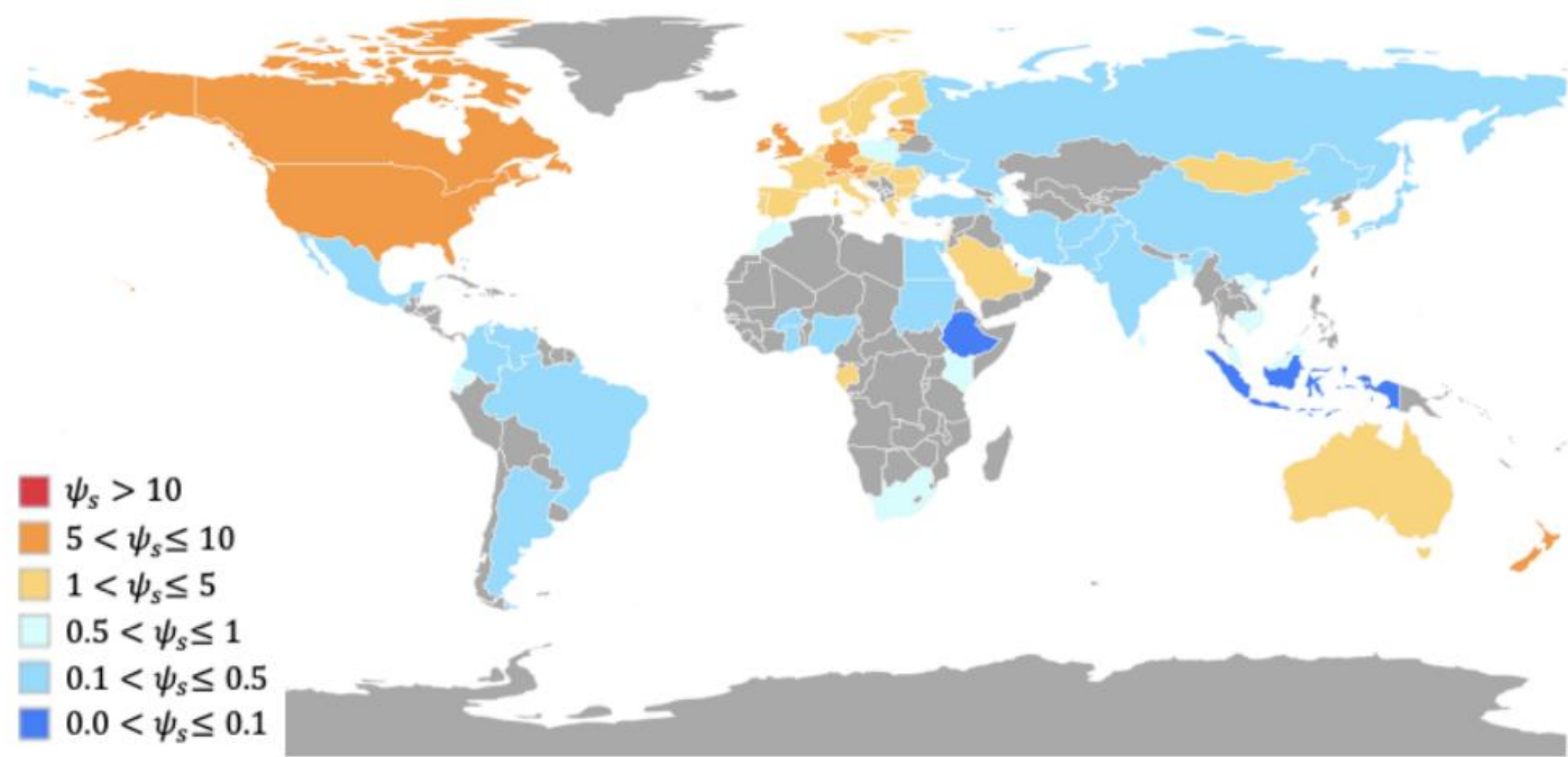# Digital Security Perceptions and Practices Around the World: A WEIRD versus Non-WEIRD Comparison

Franziska Herbert*, Collins W. Munyendo*, Jonas Hielscher, Steffen Becker, Yixin Zou

Usable S&P Research is WEIRD

$\psi_s > 10$
$5 < \psi_s \leq 10$
$1 < \psi_s \leq 5$
$0.5 < \psi_s \leq 1$
$0.1 < \psi_s \leq 0.5$
$0.0 < \psi_s \leq 0.1$

Hasegawa et al. How WEIRD is Usable Privacy and Security Research? In Proc. USENIX Security, 2024.

Problem Statement

It's difficult to design security and privacy solutions that work for everyone without cross-country comparisons.

Research Questions

RQ1: What are users' digital security perceptions and practices within and across 12 countries?

RQ2: Are there significant differences between participants from WEIRD vs non-WEIRD countries?

Countries Surved (N=12)

WEIRD
- 🇩🇪 Germany
- 🇮🇹 Italy
- 🇮🇱 Israel
- 🇵🇱 Poland
- 🇸🇪 Sweden
- 🇬🇧 United Kingdom
- 🇺🇸 United States

Non-WEIRD
- 🇨🇳 China
- 🇮🇳 India
- 🇲🇽 Mexico
- 🇸🇦 Saudi Arabia
- 🇿🇦 South Africa

Methodology Summary

Recruitment by panel provider across 12 countries

Survey on S&P perceptions and practices (n=12,351)

Descriptive and statistical analyses with correction
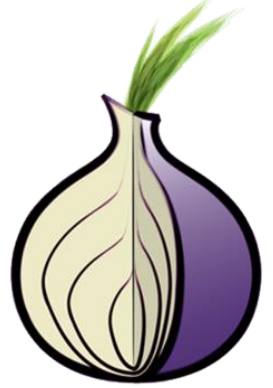
Summary of Key Results

Similarities Between WEIRD vs. Non-WEIRD

High familiarity with terms such as "ad blockers" and "malware" across all countries.

Most participants reported taking at least one protective measure, especially built-in or simple.

Low familiarity as well as adoption of PETS including VPNs and Tor.

Differences Between WEIRD vs. Non-WEIRD

Non-WEIRD participants more **familiar** with 14 out of the 17 technical S&P terms we queried.

Non-WEIRD participants rely on **friends and family** for advice, but perceive them as threats.

Non-WEIRD participants reported higher exposure to all forms of **cybercrime** we inquired about.

Implications and Takeaways

Discussion

❖ WEIRD framework provides a useful way to reason about S&P, but also has limitations.

❖ Anti-virus and updates are popular protective measures.

❖ Friends and family are sources of information but also perceived as possible adversaries.

Recommendations

❖ Need to align security advice with user behaviors.

❖ Interrogate root causes of threat models around friends and family, especially for non-WEIRD participants.

❖ Need for more research for non-WEIRD participants.

🌐 https://collinsmunyendo.github.io

✉ cmunyendo@gwu.edu

RUHR UNIVERSITÄT BOCHUM · RUB · THE GEORGE WASHINGTON UNIVERSITY WASHINGTON, DC · CISPA HELMHOLTZ CENTER FOR INFORMATION SECURITY · MAX PLANCK INSTITUTE FOR SECURITY AND PRIVACY