Peter E. Snyder

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About Me

I have over 10 years of experience improving online privacy through research, policy, and product development. I lead the privacy team at Brave Software, a privacy-focused startup with over 50 million users. In this role, I oversee research projects published at top privacy and security conferences, and the implementation of novel privacy features into Brave's Web browser.

I also advocate for privacy in internet standards, through my work in the W3C and IETF. I chair privacy-related committees, conduct formal reviews of proposals from other browser vendors–Google, Safari, Edge–, and co-author new, novel privacy-improving specifications. Proposals I've co-authored have been implemented in popular browsers, and are already used by hundreds of millions of internet users.

I am most interested privacy public policy and research opportunities. I am also especially intersted in positions that would allow me to work from Chicago.

Industry Experience

Vice President of Privacy Engineering & Senior Privacy Researcher **2023 - Present**
Brave Software, San Francisco, CA

Senior Director of Privacy & Senior Privacy Researcher **2022 - 2023**
Brave Software, San Francisco, CA

Senior Privacy Researcher **2020 - 2022**
Brave Software, San Francisco, CA

Privacy Researcher **2018 - 2020**
Brave Software, San Francisco, CA

Education

Ph.D. Computer Science **2012 - 2018**
University of Illinois at Chicago, Chicago, IL

Roles and Selected Achievements

Privacy in Standards Bodies

I have contributed to and lead privacy efforts in multiple prominent standards bodies.

I have co-chaired the W3C's Privacy Interest Group (PING) for three years, the group responsible for reviewing the privacy impact of proposed specifications. As a co-chair of PING, I have reviewed dozens of proposals and worked with (and occasionally against) browser developers from Google, Apple, Mozilla, and Microsoft to protect user privacy.

I have also co-authored multiple privacy-improving proposals, including STAR–a lightweight cryptographic system for private, verifiable large scare internet measurements–, and Request Off-the-Record–a HTTP and browser enhancement to protect victims of intimate partner violence. Pre-standardization implementations of these proposals are currently being using by over 63 million internet users.

Privacy in Public Policy

I have done significant work at the intersection of public policy and privacy engineering.

In some cases, this has been in the development of technical features to help users assert legal rights provided by existing regulations. For example, I am a co-author of the Global Privacy Control (GPC) proposal, a system to allow users to easily assert the opt-out rights described in legislation like the California Consumer Privacy Act. GPC is used by over 50 million users, and is included in privacy focused Web browsers like Brave, DuckDuckGo, and Firefox.

I have also been involved with policy and regulatory investigations of Google and Apple, and the privacy and competitiveness implications of their "Privacy Sandbox" and iOS browser restrictions. I've written about the negative impact these systems have on the openness of the Web, both for popular audiences, and for regulators in United States and UK.

Privacy in Product Design

I have designed and overseen the implementation of a wide range of privacy features at Brave Software. I also manage the seven person privacy team at Brave, which handles the shipping and maintenance of these features for Brave's over 60 million users.

The main focus of my work at Brave has been to synthesize and productize insights from industry and academic privacy research. A partial list of such features I developed at Brave include Brave's unique approach to protecting users from browser fingerprinting, best-in-class protections against third-party tracking, efficient and scalable system for product analytics, and defenses against colluding, malicious websites. Each of these features were unique among popular browsers when I designed them at Brave, most remain so, and a few have even been directly adopted by larger browsers like Firefox and Safari.

PUBLICATIONS

Salim Chouaki, Oana Goga, Hamed Haddadi, and Peter Snyder. "Understanding the Privacy Risks of Popular Search Engine Advertising Systems." *In ACM Internet Measurement Conference* (IMC, 2023).

Stephen McQuistin, Peter Snyder, Colin Perkins, Hamed Haddadi, and Gareth Tyson. "A First Look At The Privacy Harms Of The Public Suffix List." *In ACM Internet Measurement Conference* (IMC, 2023).

Peter Snyder, Soroush Karami, Arthur Edelstein, Ben Livshits, and Hamed Haddadi. "Pool-Party: Exploiting Browser Resource Pools For Web Tracking." *In USENIX Security Symposium* (USENIX, 2023).

Audrey Randall, Peter Snyder, Alisha Ukani, Alex C. Snoeren, Geoffrey M. Voelker, Stefan Savage, and Aaron Schulman. "Measuring UID Smuggling In The Wild." *In ACM Internet Measurement Conference* (IMC, 2022).

Alex Davidson, Peter Snyder, E. V. Quirk, Joseph Genereux, Ben Livshits, and Hamed Haddadi. "STAR: Secret Sharing For Private Threshold Aggregation Reporting." *In ACM Conference on Computer and Communications Security* (CCS, 2022).

Michael Smith, Peter Snyder, Moritz Haller, Ben Livshits, Hamed Haddadi, and Deian Stefan. "Blocked Or Broken? Automatically Detecting When Privacy Interventions Break Websites." *In Privacy Enhancing Technologies Symposium* (PETS, 2022).

Jordan Jueckstock, Peter Snyder, Shaown Sarker, Alexandros Kapravelos, and Ben Livshits. "Measuring The Privacy Vs. Compatibility Trade-Off In Preventing Third-Party Stateful Tracking." *In The Web Conference* (WWW, 2022).

Michael Smith, Peter Snyder, Ben Livshits, and Deian Stefan. "SugarCoat: Programmatically Generating Privacy-Preserving, Web-Compatible Resource Replacements For Content Blocking." *In ACM Conference on Computer and Communications Security* (CCS, 2021).

Jordan Jueckstock, Shaown Sarker, Peter Snyder, Aidan Beggs, Panagiotis Papadopoulos, Matteo Varvello, Ben Livshits, and Alexandros Kapravelos. "Towards Realistic And Reproducible Web Crawl Measurements." *In The Web Conference* (WWW, 2021).

Quan Chen, Peter Snyder, Ben Livshits, and Alexandros Kapravelos. "Detecting Filter List Evasion With Event-Loop-Turn Granularity JavaScript Signatures." *In IEEE Symposium on Security and Privacy* (S&P, 2021).

Peter Snyder, Antoine Vastel, and Ben Livshits. "Who Filters The Filters: Understanding The Growth, Usefulness And Efficiency Of Crowdsourced Ad Blocking." *In ACM Special Interest Group on Measurement and Evaluation* (SIGMETRICS, 2020).

Alexander Sjosten, Peter Snyder, Antonio Pastor, Panagiotis Papadopoulos, and Ben Livshits. "Filter List Generation For Underserved Regions." *In The Web Conference* (WWW, 2020).

Panagiotis Papadopoulos, Peter Snyder, Dimitrios Athanasakis, and Ben Livshits. "Keeping Out The Masses: Understanding The Popularity And Implications Of Internet Paywalls." *In The Web Conference* (WWW, 2020).

Umar Iqbal, Peter Snyder, Shitong Zhu, Ben Livshits, Zhiyun Qian, and Zubair Shafiq. "AdGraph: A Machine Learning Approach To Automatic And Effective Adblocking." *In IEEE Symposium on Security and Privacy* (S&P, 2020).

Mohammad Ghasemisharif, Peter Snyder, Andrius Aucinas, and Ben Livshits. "SpeedReader: Reader Mode Made Fast And Private." *In The Web Conference* (WWW, 2019).

Peter Snyder, Cynthia Taylor, and Chris Kanich. "Most Websites Don't Need to Vibrate: A Cost-Benefit Approach to Improving Browser Security." *In ACM Conference on Computer and Communications Security* (CCS, 2017).

Peter Snyder, Periwinkle Doerfler, Chris Kanich, and Damon McCoy. "Fifteen Minutes of Unwanted Fame: Detecting and Characterizing Doxing." *In ACM Internet Measurement Conference* (IMC, 2017).

Peter Snyder, Laura Watiker, Cynthia Taylor, and Chris Kanich. "CDF: Predictably Secure Web Documents." *In IEEE Workshop on Technology and Consumer Protection* (ConPro, 2017).

Peter Snyder, Lara Ansari, Cynthia Taylor, and Chris Kanich. "Browser Feature Usage on The Modern Web." *In ACM Internet Measurement Conference* (IMC, 2016).

Peter Snyder and Chris Kanich. "Characterizing Fraud and Its Ramifications in Affiliate Marketing Networks." *Journal of Cybersecurity* (2016).

Peter Snyder, Chris Kanich, and Michael K Reiter. "The Effect of Repeated Login Prompts on Phishing Susceptibility." *In Workshop on Learning from Authoritative Security Experiment Results* (LASER, 2016).

Peter Snyder and Chris Kanich. "No Please, After You: Detecting Fraud in Affiliate Marketing Networks." *In Workshop on the Economics of Information Security* (WEIS, 2015).

Jason W Clark, Peter Snyder, Damon McCoy, and Chris Kanich. "I Saw Images I Didn't Even Know I Had: Understanding User Perceptions of Cloud Storage Privacy." *In Proceedings of the 33rd ACM Conference on Human Factors in Computing Systems* (CHI, 2015).

Peter Snyder. "Yao's Garbled Circuits: Recent Directions and Implementations." *In Written Critique and Presentation Exam (qualifier) Report* (2014).

Peter Snyder and Chris Kanich. "Cloudsweeper and Data-centric Security." *ACM SIGCAS Computers and Society* (2014).

Peter Snyder and Chris Kanich. "Cloudsweeper: Enabling Data-Centric Document Management for Secure Cloud Archives." *In ACM Workshop on Cloud Computing Security* (CCSW, 2013).

Reviewing and Academic Community Involvement

Program Committee

2024	USENIX, S&P	**2020**	WWW, MADWeb
2023	USENIX, S&P, MADWeb	**2019**	MadWeb, CSAW
2022	USENIX, WWW, MADWeb, PEPR	**2018**	CSAW, ECRIME
2021	USENIX, WWW, MADWeb, CCS		

External Reviewer

2020	SIGCOMM, CCR	**2016**	S&P, CCS
2019	Journal of Cybersecurity	**2015**	CCS
2018	CHI Late Breaking Work, SIGCOMM	**2013**	NDSS
2017	USENIX Security, NDSS		

TEACHING EXPERIENCE

Lead Instructor **2017**
CS342: Software Design, University of Illinois, Chicago

Teaching Assistant **2017, 2015**
CS450: Software Design, University of Illinois, Chicago