The 24th Privacy Enhancing Technologies Symposium, Bristol, UK

Generalizable Active Privacy Choice Designing a Graphical User Interface for Global Privacy Control

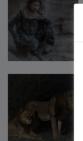
<u>Sebastian Zimmeck</u>, Eliza Kuller, Chunyue Ma, Bella Tassone, Joe Champeau

Wesleyan University*

We have a problem with ...

×

t to



CONDÉ NAST About Your Privacy We process your data to deliver content or advertisements and measure the delivery of such content or advertisements to extract insights about our website. We share this information with our partners on the basis of consent and legitimate interest. You may exercise your right to consent or object to a legitimate interest, based on a specific purpose below or at a partner level in the link under each purpose. These choices will be signaled to our vendors participating in the Transparency and Consent Framework. More information Manage Consent Preferences

Scientists built real-life "stillsuit" to recycle astronaut urine on

+	Functional Cookies	
+	Performance Cookies	
+	Targeting Cookies	
+	Social Media Cookies	
+	Strictly Necessary Cookies	Always Active
	Reject All	Confirm My Choice
		Powered by Onetr



... opting out!

GPC: Global Privacy Control

Take Control Of Your Privacy

Exercising privacy rights more simply is critical to making online privacy accessible to all.

https://globalprivacycontrol.org/

GPC is Requited by Law and Enforced by Regulators

...



Archive - Attorney General Becerra @AGBecerra

#CCPA requires businesses to treat a user-enabled global privacy control as a legally valid consumer request to opt out of the sale of their data.

CCPA opened the door to developing a technical standard, like the GPC, which satisfies this legal requirement & protects privacy.

12:56 PM · Jan 28, 2021

23 Retweets 17 Quotes

Attorney General Bonta Announces Settlement with Sephora as Part of Ongoing Enforcement of California Consumer Privacy Act

Final State State

Universal Opt-Out Shortlist

The Colorado Privacy Act (CPA) contains express Consumer rights, including Personal Data for Targeted Advertising. Beginning on July 1, 2024, organization of their Personal Data or use of their Personal Data for Targeted Advertising u

To ensure that Consumers and Controllers know which UOOMs will be enford Universal Opt-Out Mechanisms that have been recognized to meet the stand shall be updated periodically."

The Colorado Department of Law (The Department) accepted applications fo consideration (the "shortlist"). The Department accepted public comment or Department considered public comments alongside each application and the comment can be found <u>here</u>.

The below list of UOOMs includes those The Department considers valid und authorized implementations meet the requirements of C.R.S. § 6-1-1313 and each UOOM to ensure they are able to accept Consumer requests.

Universal Opt-Out Mechanism	Technical Specification
Global Privacy Control (GPC)	Privacy CG

GPC Adoption

OneTrust

PRIVACY, SECURITY & GOVERNANCE

Sourcepoint

 \bigotimes

DIDOMI

Browsers and Extensions

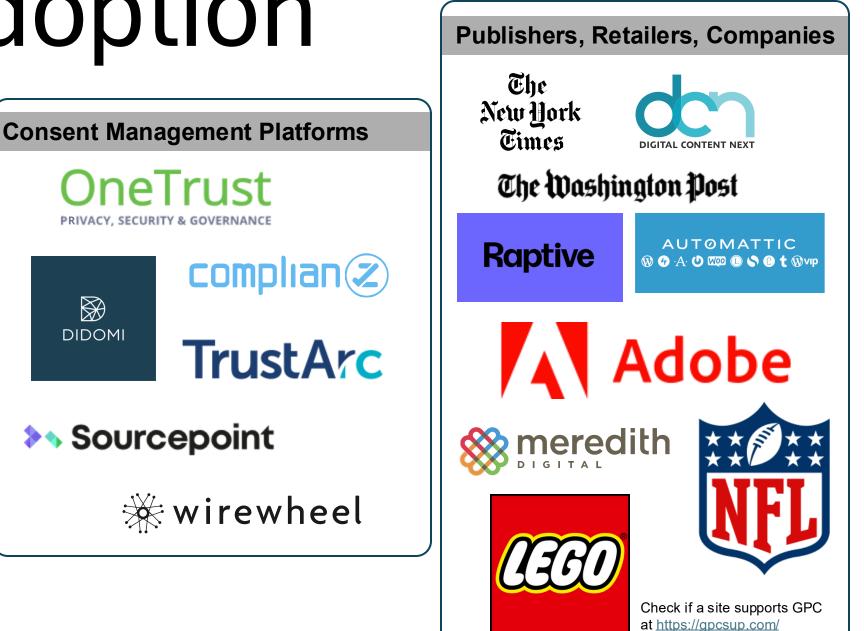
OptMeowt

Firefox Browser

abine

brave

DuckDuckGo



The Default Problem

- Legal requirement: No default settings*
- Problem: Usability
- <u>Solution</u>: Activity + Generalizability



* E.g., CCPA Section 1798.185(a)(19)(A)(iii), Colorado Privacy Act Section 6-1-1313(2)(c), Connecticut Data Privacy Act Section 6(e)(1)(A)(ii)(II).

Privacy Choice Schemes

Generalize a privacy choice, for example,

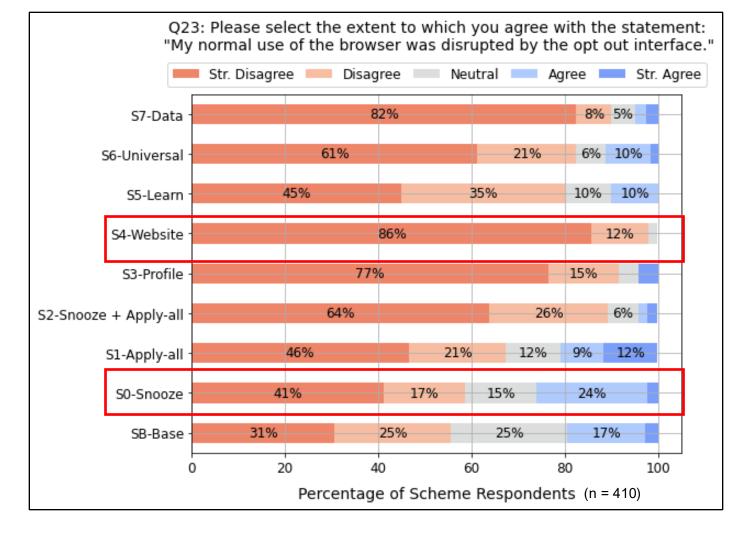
- from one website to multiple sites (banner schemes)
- via categories of sites to which a choice applies (category schemes)

Global Privacy Control (GPC)	The law gives you a privacy right:			
The law gives you a privacy right:	Select one or more categories to specify which websites should be prohibited from selling/sharing your data. Hover over the cards to learn more.			
Enable GPC to prohibit this website from selling/sharing your data. Disable GPC to permit this website to sell/share your data.	Advertising	Analytics	Content & Social	
ENABLE GPC DISABLE GPC				
Apply to all websites you visit	Cryptomining	Browser Fingerprinting	All Sites	
Review or modify your settings	Gryptomining			

Generalizable Active Privacy Choice

- Activity
- Generalizability
- In the context of GPC but many other use cases exist e.g., cookie banners





The **perceived level of disruption is lower** for schemes with generalizability features than for baseline schemes and, in a less pronounced trend, for banner schemes overall. **For the least disruptive scheme — S4-Website — 98% participants reported that they did not feel disrupted**, a 40% point increase over baseline scheme S0-Snooze.

Main Findings

- Generalizability features:
- → Decrease opt out utility slightly
- → Increase opt out efficiency substantially



→ Make opting out less disruptive which was very important to most study participants

Recommendations

- 1. Regulators Should Require Publishers to Honor GPC Signals
- 2. Browser Vendors Should Integrate GPC in their Browsers via a Generalizable Active Privacy Choice Interface*
- 3. Publishers Should Honor Opt Outs via GPC



* No Interface also works for privacy-preserving products (e.g., the Brave browser).

Thank You!





ALFRED P. SLOAN FOUNDATION

Wesleyan University



https://privacytechlab.org



Paper: https://petsymposium.org/popets/2024/popets-2024-0015.pdf GitHub Repo: https://github.com/privacy-tech-lab/gpc-privacy-choice

We are grateful to the Alfred P. Sloan Foundation (Program in Universal Access to Knowledge) and the National Science Foundation (Award #2055196) for their support of this research. We also thank Wesleyan University, its Department of Mathematics and Computer Science, and the Anil Fernando Endowment for their additional support. Conclusions reached or positions taken are our own and not necessarily those of our supporters, its trustees, officers, or staff.