Future of Privacy Forum

The Supporters

175+
Companies

25+
Leading
Academics

15+
Advocates and
Civil Society

5
Foundations

The Mission

Bridging the policymaker-industry-academic gaps in privacy policy

Developing privacy protections, ethical norms, & responsible business practices

The Workstreams

Connected Cars
Student Data

Location & Ad Tech
Internet of Things

Ethics & De-identification
Smart Cities

Agenda

- Intro: A (Brief) Look at Legislative Proposals
- Defining "dark patterns" (& design patterns)
- Contexts: what do they target?
- How do they work? Cognitive biases, heuristics, and persuasive design
- Types of Dark Patterns
- Examples
- Key Considerations for Policymakers

Discussion/Q&A

Introduction: Why Now? 1/3

California Consumer Privacy Act (CCPA) - Attorney General Regulations

- Finalized 2020-2021
- Regulations require that companies "shall not use [an Opt Out of Sale method] that is designed with the purpose or has the substantial effect of subverting or impairing a consumer's choice to opt-out."

California Privacy Rights Act (CPRA):

- Amends the CCPA (passed 2020, effective 2023)
- Defines dark patterns: "[a] user interface designed or manipulated with the **substantial effect** of subverting or impairing user autonomy, decision-making, or choice . . .
- ". . . agreement obtained through use of dark patterns does not constitute consent."

Introduction: Why Now? 2/3

- **Washington Privacy Act, SB 5062:**
  - Would prohibit the use of a "dark pattern" -- "a user interface design or manipulated with the substantial effect of subverting or impairing user autonomy, decision-making, or choice."§101(10).
- **CA SB 980:**
  - §2(4). "Dark Pattern" is "a user interface designed or manipulated with the substantial effect of subverting or impairing user autonomy, decisionmaking, or choice."
- **SAFE DATA Act, S. 4626:**
  - §206. "Conduct Prohibited", includes, "to design, modify, or manipulate a user interface with the purpose or substantial effect of obscuring, subverting, or impairing user autonomy, decision making, or choice to obtain consent or user data"

Introduction: Why Now? 3/3

- Ongoing focus of the Federal Trade Commission
- Enforces Section 5 of the FTC Act (deceptive or unfair commercial practices)
  - Tapjoy (2021) (gaming) — involved misleading promises of in-game rewards
  - Age of Learning (2020) (educational subscription) — involved misrepresentation that a service was "free" and tactics that made it very difficult for users to cancel a subscription.
  - Path (2013) (social networking) – FTC alleged company offered deceptive "Add Friends" feature. The feature gave users three options: "Find friends from your contacts;" "Find friends from Facebook;" or "Invite friends … by email or SMS." However, Path automatically collected users' contacts even when users eschewed the "Find friends from your contacts" option. ($800,000 settlement)
- **April 29, 2021:** FTC Workshop: "Bringing Dark Patterns to Light"

Speaker

Dr. Jen King
Privacy & Data Policy Fellow,
Stanford Institute for Human-Centered
Artificial Intelligence

- Privacy scholar/researcher
- Ph.D information science, human-computer interaction
- 10+ years examining dark patterns in practice, as expert witness w/FTC & states
- Forthcoming in April: Jennifer King & Adriana Stephan, *Regulating Privacy Dark Patterns in Practice: Drawing Inspiration from California Privacy Rights Act*, 5 Geo. L. Tech. Rev. 2 (2021)

What is a design pattern?

"Design patterns are reusable/recurring components which designers use to solve common problems in user interface design."

Problem summary

The user wants to to retrieve more data or refresh already available contents on the screen.

Example

▲ Once user has scrolled to the top of the stream of tweets, they can scroll a little further to refresh the stream.

Usage

- Use to refresh or update any updatable content such as lists, grid lists, and card collections that are sorted in reverse chronological order (a collection is strictly sorted by descending date). Examples:
  - Content feeds (Twitter, RSS)
  - Inboxes (emails, text messages)
- Use pull to refresh to refresh the entire page or widget. Example:
  - Tab in browser (Google Chrome)
- Use when designing for touch screens.

What is a "dark" pattern?

"A user interface that has been carefully crafted to trick users into doing things...they are not mistakes, they are carefully crafted with a solid understanding of human psychology, and they do not have the user's interests in mind."

- Brignull, Dark Patterns.org

"Techniques used to manipulate users to do things they would not otherwise do."

- Luguri & Strahilevitz 2021

What is a "dark" pattern?

"Dark patterns are user interface design choices that benefit an online service by coercing, manipulating, or deceiving users into making unintended and potentially harmful decisions."

- Mathur, Mayer, & Kshirsagar 2021

Arunesh Mathur, Jonathan Mayer, and Mihir Kshirsagar in What Makes a Dark Pattern...Dark?: Design Attributes, Normative Considerations, and Measurement Methods. Conference on Human Factors in Computing Systems (CHI '21), May 8–13, 2021, Yokohama, Japan. ACM, New York, NY, USA.

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Animation source: Wiktor Buksza, 10Clouds
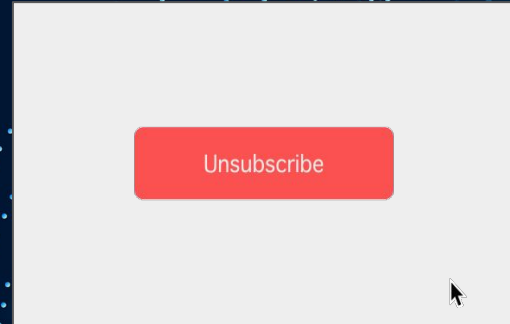
Context: Where do we find them?

Three primary contexts:
- e-commerce/online shopping
- privacy/disclosure/consent
- attention/gaming (addiction)

E-commerce and disclosure/consent are typically *decision points* -- places where individuals must make a decision or execute an action -- and subject to coercion or manipulation

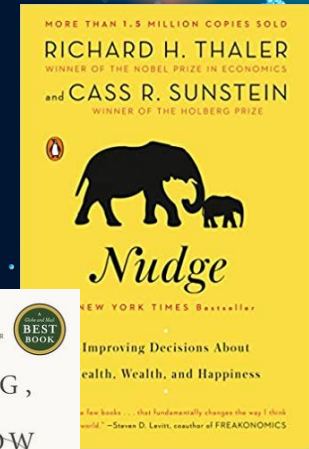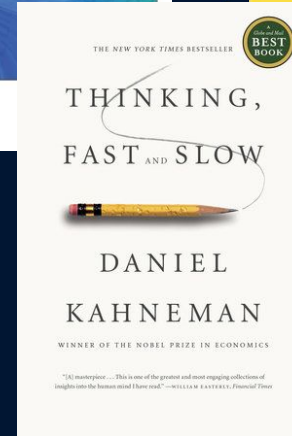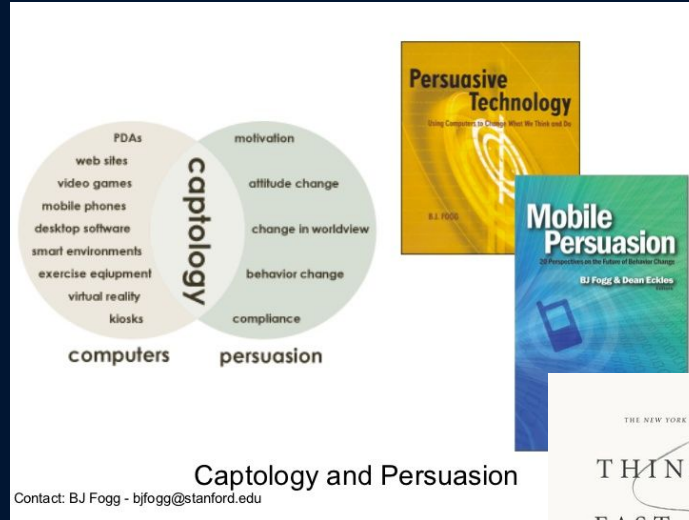# What are the limits of permissible persuasion?
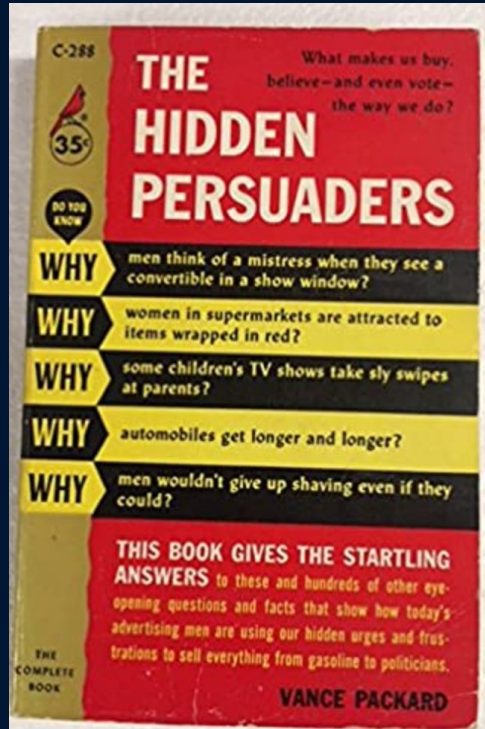
How do they work? Heuristics & Cognitive Biases

Heuristics:
- Availability heuristic
- representativeness heuristic

Cognitive Biases:
- Anchoring effect
- Confirmation bias
- Endowment effect

Captology and Persuasion

Contact: BJ Fogg - bjfogg@stanford.edu

Types of Dark Patterns:
Dark Patterns at Scale
(Mathur, et. al.)

1. Asymmetric

Does the user interface emphasize particular choices more than others?

2. Covert

Does the interface steer the user to make certain purchases or choices without their knowledge?

3. Restrictive

Does the user interface restrict the number of choices available to the user?

4. Hides Information

Does the user interface obscure information or delay the presentation of key information?

5. Deceptive

Does the interface use misleading statements, or omissions, to induce false beliefs?

Persuasion vs. Deception, Coercion, and Manipulation

Deception

Planting of false beliefs (form of manipulation); FTC: "a representation, omission, or practice is deceptive if it is likely to mislead consumers acting reasonably under the circumstances"

Coercion

Coercion influences someone "by constraining their options, such that their only rational course of action is the one the coercer intends."

Manipulation

Manipulation is hidden influence: "intentionally and covertly influencing [one's] decision-making, by targeting and exploiting their decision-making vulnerabilities."

Susser, D. & Roessler, B. & Nissenbaum, H. (2019). Technology, Autonomy, and Manipulation. Internet Policy Review, 8(2).

Privacy: LinkedIn - Contact Harvesting
(pre MSFT acquisition)

Guiltshaming/Confirmshaming

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Privacy: Coercive (& Confusing!?) Consent

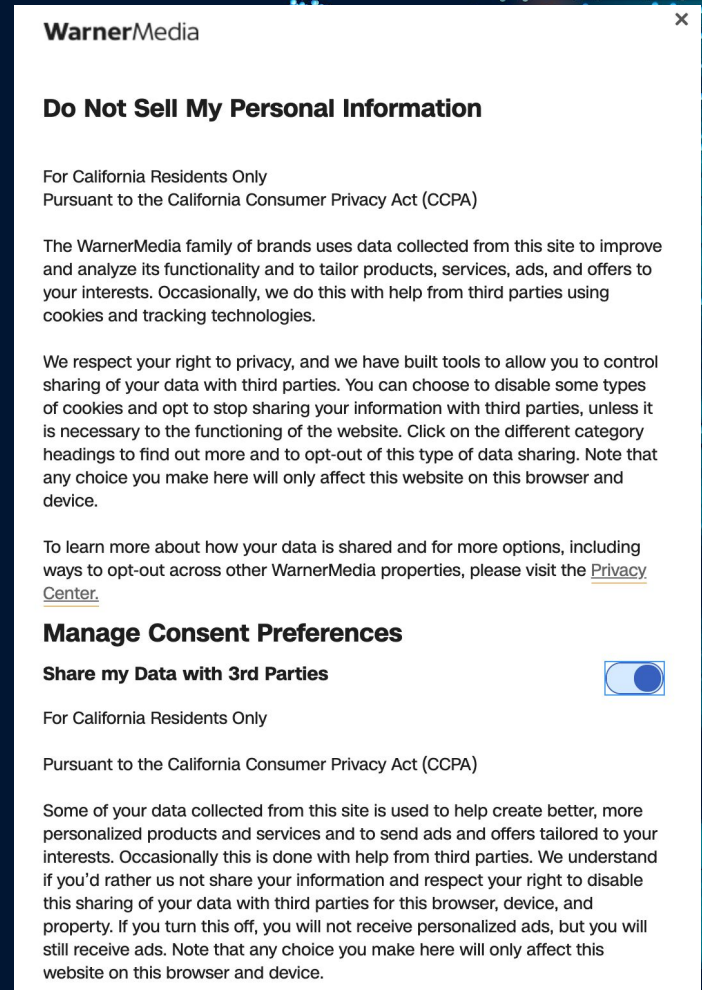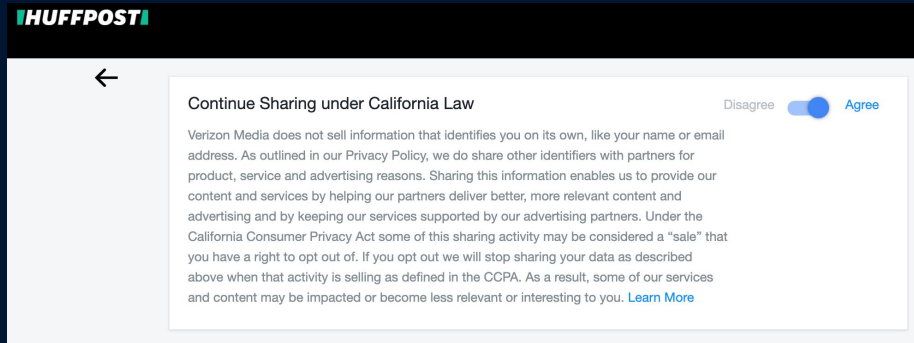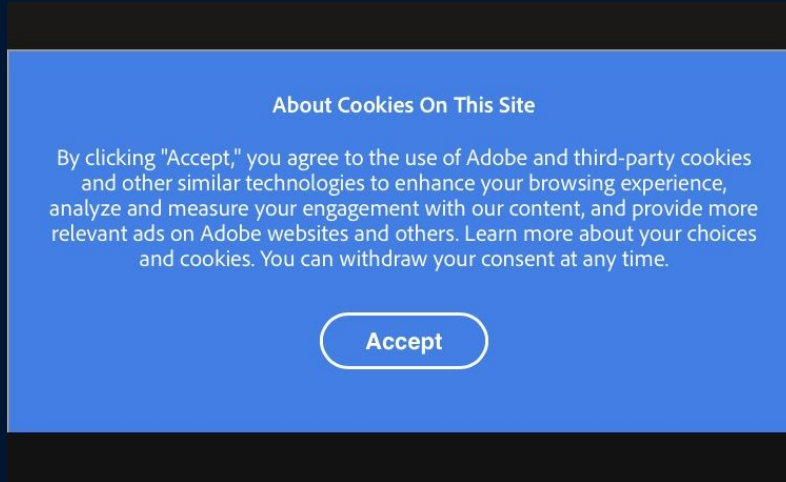## About Cookies On This Site

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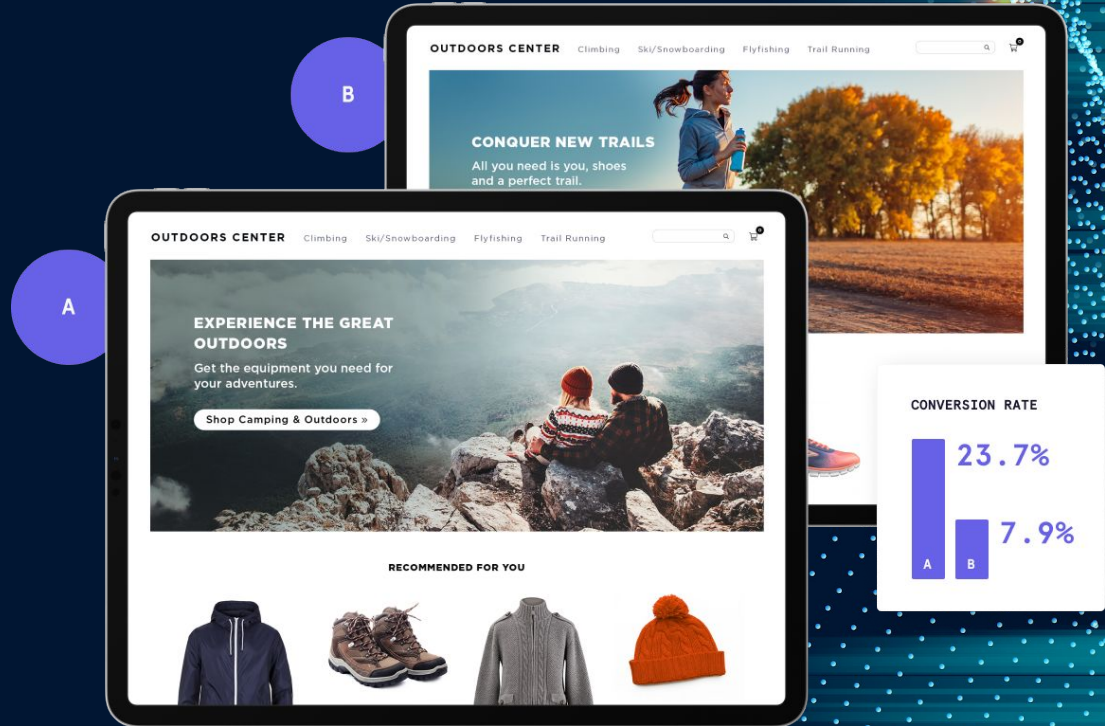
Privacy: Bundled Consent

Dark patterns in the physical world
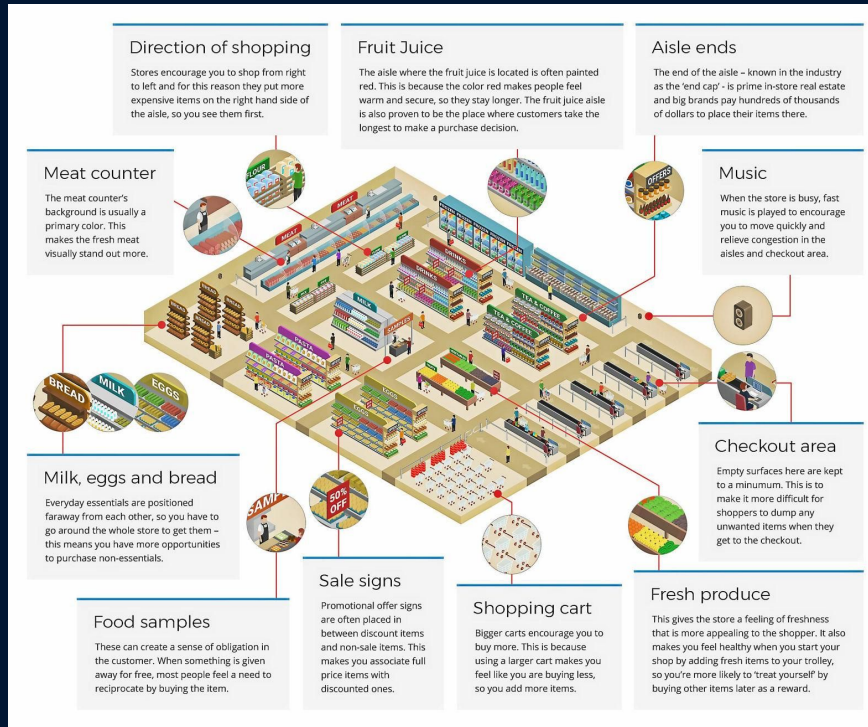
Facilitating their rise: A/B Testing at Scale

"A/B testing is a methodology to compare two or more versions of an experience to see which one performs the best relative to some objective measure."

Rochelle King, Elizabeth Churchill, and Caitlin Tan. Designing With Data. Sebastapol, CA: O'Reilly Media, Inc. 2017.

California: Dark Patterns in the CPRA & CCPA

- **CPRA:**
  - The California Privacy Rights Act (CPRA) defines dark patterns as: "[a] user interface designed or manipulated with the **substantial effect** of subverting or impairing user autonomy, decision-making, or choice, as further defined by regulation."
  - Consent means any freely given, specific, informed and unambiguous indication of the consumer's wishes… "**agreement obtained through use of dark patterns does not constitute consent**."

- **CCPA:**
  - California Consumer Privacy Act recently updated regulations: "A business shall not use a method that is designed with the purpose or has the substantial effect of subverting or impairing a consumer's choice to opt-out."

Considerations for Lawmakers

- Is current FTC Section 5 authority enough to address dark patterns generally? Or is expanded authority necessary? For example, to cover "manipulative design."
- Empirical considerations: how to measure, and by whom?
- Identifying the "dark" vs. the "gray": what defines the line between permissible persuasion and manipulation/coercion?
- Are neutral designs a realistic and enforceable option, particularly at decision points, such as opt-ins/outs?
- What are the implication for Privacy by Design? How is success in privacy measured?
- How does the CPRA's "effect" standard differ from a potential "intent" standard? Which standard is most measurable/enforceable?

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Questions?

Contact us at:
sgray@fpf.org
&
kingjen@stanford.edu

Thank you to Srivats Shankar ~ FPF Policy Intern

FUTURE OF PRIVACY FORUM

Discussion

Stacey Gray, Senior Counsel at the Future of Privacy Forum

Jen King, Privacy & Data Policy Fellow at the Stanford Institute for Human-Centered Artificial Intelligence

Mihir Kshirsagar, Clinic Director, Center for Information Technology Policy, Princeton University

Tanya Forsheit, Chair of the Privacy & Data Security Group at Frankfurt Kurnit