Webinar on AI and consumer protection:
Harnessing tech to better enforce consumer law

Legal and Technical Remedies Against Manipulative Design

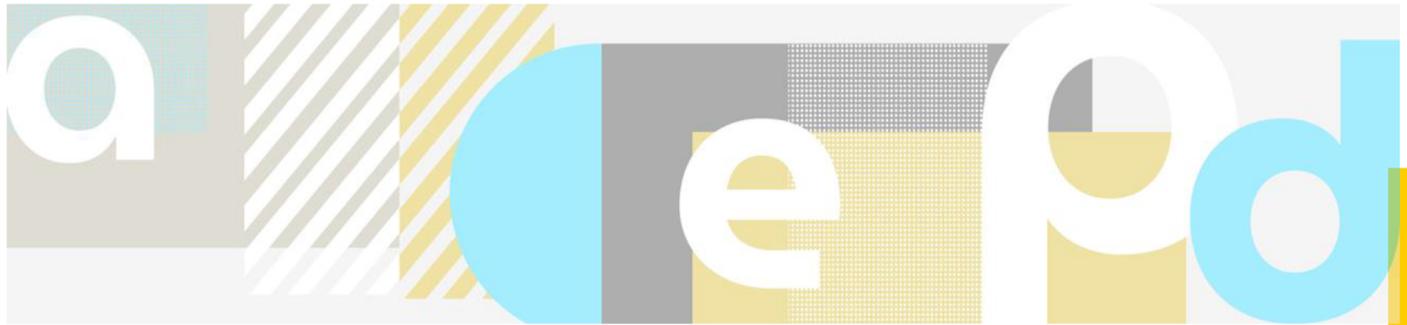# EU Legislation and Automated Detection to Counter Consumer Harming Practices

Presented by:

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FOV Speyer, dapde project

Legal and Technical Remedies against Manipulative Design

EU-legislation and Automated Detection to counter Consumer Harming Practices

Dark Pattern Detection Project

» Cooperation between
  › German Research Institute for Public Administration Speyer (Prof. Mario Martini)
  › Heidelberg University (Prof. Michael Gertz)

» Paul Seeliger, M.Iur. (Münster)
  › Research Associate & project coordinator
    FÖV Speyer, dapde project

Supported by:

Federal Ministry
for the Environment, Nature Conservation,
Nuclear Safety and Consumer Protection

Federal Office for
Agriculture and Food

based on a decision of
the German Bundestag

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Content

1. What are Dark Patterns?

2. The *Dark Pattern Highlighter*

3. Outlook: EU-legislation for the digital sphere

1. What are Dark Patterns?

1. What are Dark Patterns?

Definitions

» " [...] instances where designers use their knowledge of human behavior (e.g., psychology) and the desires of end users to implement deceptive functionality that is not in the user's best interest"
Gray et al. CHI 2018 paper 534

» "[...] user interfaces whose designers knowingly confuse users, make it difficult for users to express their actual preferences, or manipulate users into taking certain actions"
Luguri/Strahilevitz Journal of Legal Analysis 2021, 43

» "[...] design patterns that lead users to act in a certain way that is contrary to their interests, exploiting design power unilaterally in the interests of their creator"
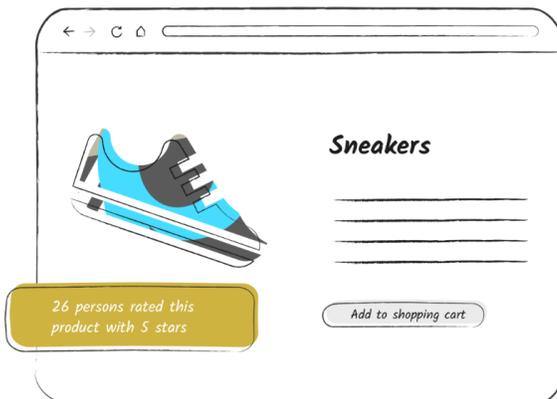*Martini et al.* ZfDR 2021, 47 [ger]

» ...

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1. What are Dark Patterns?

Examples – Scarcity

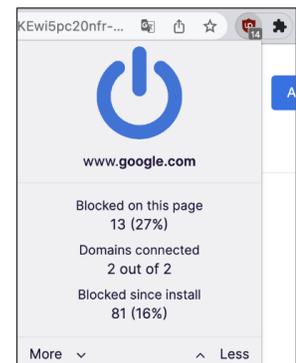Teapot

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1. What are Dark Patterns?

Examples – Countdown

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1. What are Dark Patterns?

Examples – Social Proof

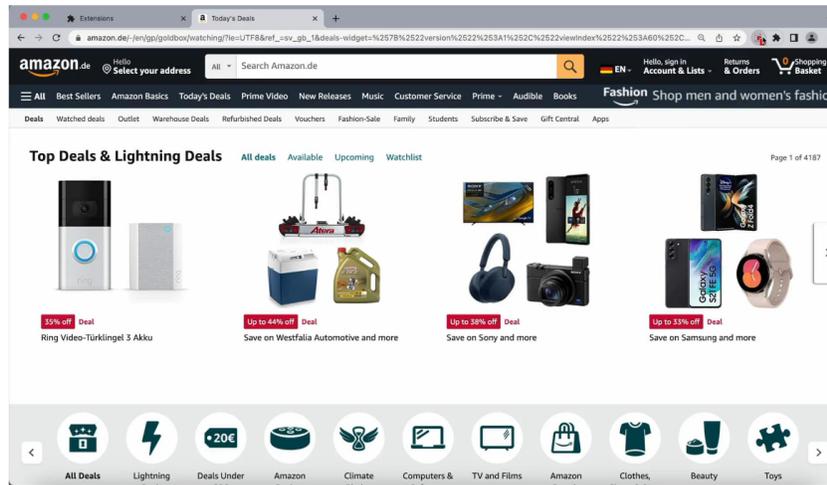## 2. *Dark Pattern Highlighter*

2. Dark Pattern Highlighter

Idea

» Raise awareness of dark patterns and actively protect users from them

» Many dark patterns can be found on websites → browser extension

» Similarities with adblockers
  › But: not removed but highlighted

» dark patterns in cookie banners: Consent-O-Matic

uBlock Origin Adblocker

2. Dark Pattern Highlighter

Features

2. Dark Pattern Highlighter

Challenges

» Pattern detection can be very complex

» Challenging requirements for the extension

» Possible answer:

   machine learning for more flexible pattern detection?

Source code available
on Github

3. Outlook: EU-legislation for the digital sphere

3. Outlook: EU-legislation for the digital sphere

Digital Services Act

» Addressing Manipulative Design / 'Dark Patterns':

Art. 25 DSA

(1) Providers of online platforms shall not **design, organise or operate their online interfaces** in a way that **deceives or manipulates** the recipients of their service or in a way that **otherwise materially distorts or impairs the ability** of the recipients of their service to make **free and informed decisions**. [...]

3. Outlook: EU-legislation for the digital sphere

Digital Services Act

Recital 67

1**Dark patterns** on online interfaces of online platforms are practices that **materially distort or impair**, either on purpose or in effect, the ability of recipients of the service to make **autonomous and informed choices** or decisions.

2Those practices can be used to **persuade** the recipients of the service to **engage in unwanted behaviours** or into **undesired decisions** which have **negative consequences** for them.

3Providers of online platforms should therefore be prohibited from **deceiving or nudging** recipients of the service and from **distorting or impairing the autonomy, decision-making, or choice** of the recipients of the service via the structure, design or functionalities of an online interface or a part thereof.

4This should include, but not be limited to, exploitative design choices to **direct the recipient** to actions that **benefit the provider of online platforms**, but which **may not be in the recipients' interests**, presenting choices in a **non-neutral** manner, such as giving **more prominence** to certain choices through visual, auditory, or other components, when asking the recipient of the service for a decision.

3. Outlook: EU-legislation for the digital sphere

Digital Services Act

Art. 25 DSA

[...]

(3) The Commission may issue guidelines on how paragraph 1 applies to specific practices, notably:

(a) [**Misdirection**]

(b) [Nagging]

(c) [Roach motel]

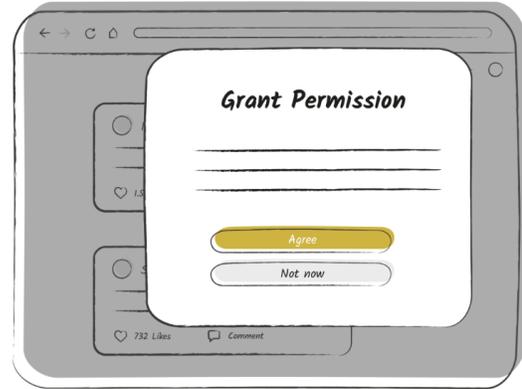## 3. Outlook: EU-legislation for the digital sphere

Digital Services Act

Art. 25 DSA

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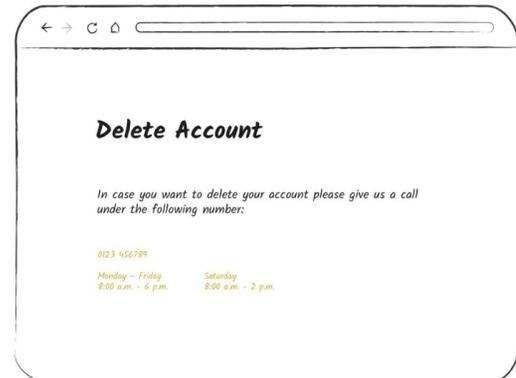## 3. Outlook: EU-legislation for the digital sphere

Digital Services Act

Art. 25 DSA

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(c) [**Roach Motel**]

3. Outlook: EU-legislation for the digital sphere

Digital Markets Act

» Fair market regarding contestability and fairness
  › business – **gatekeeper** – consumer

» Detailed lists of obligations: Articles 5 – 7
  › Article 5 No 2:

    1The gatekeeper shall not [process data without consent] […].

    2Where the **consent** given for the purposes of the first subparagraph has been **refused** or withdrawn by the end user, the gatekeeper shall **not repeat** its request for consent for the same purpose more than **once within a period of one year**.
  › = No Nagging-Patterns

3. Outlook: EU-legislation for the digital sphere

Digital Markets Act

» Article 13 – Anti-Circumvention

  […]

  3. The gatekeeper shall ensure that the obligations of Articles 5, 6 and 7 are **fully and effectively complied with**.

  4. The gatekeeper shall not engage in **any behaviour** that undermines **effective compliance** with the obligations of Articles 5, 6 and 7 regardless of whether that behaviour is of a contractual, commercial or technical nature, or of any other nature, or consists in the **use of behavioural techniques or interface design**.

3. Outlook: EU-legislation for the digital sphere

Artificial Intelligence Act

» Work in progress

» Art. 5 AI-Act:

1. The following artificial intelligence practices shall be prohibited:
   (a) [...] subliminal techniques **beyond a person's consciousness** or purposefully manipulative or

   deceptive techniques, with the objective to or the **effect of materially distorting** [...] **behaviour** by

   appreciably impairing the person's ability to make an **informed decision**, thereby causing [...] a

   decision that would not have otherwise [been] taken in a manner that causes [...] **significant harm**;

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3. Outlook: EU-legislation for the digital sphere

Artificial Intelligence Act

» Work in progress

» Art. 5 AI-Act:

1. The following artificial intelligence practices shall be prohibited:
   (b) [...] AI system that exploits any of the **vulnerabilities** of a person [...], with [...] the effect

   of **materially distorting the behaviour** of that person or a [...] in a manner that [...] is reasonably

   likely to cause [...] significant harm

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Thank you for your attention!

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Highlighter on
Github