



# Designing for Mindful Human-Computer Interaction

The Regulatory Perspective  
Alberto Monge Roffarello

Can **policies and regulations** shape  
technology for better  
Digital Wellbeing?

# Deceptive vs. Seductive Designs

- Designs that use **deception** (e.g., *Disguised Ads and Recommendations* and *Fake Social Notifications*) are strong candidates for regulation, because it is feasible (although not easy) to set standards for what constitutes an interface that tricks the user into a false belief.



**Some Dark Patterns now illegal in UK –  
interview with Heather Burns**

AUGUST 26, 2014

# Deceptive vs. Seductive Designs

- **Seductive** designs like Infinite Scrolling and Neverending Autoplay — i.e., those that tempt the user with short-term satisfaction—are instead more on a gray area:
  - how can we draw the line between the acceptable, the tolerable, and the truly damaging?

# Regulating Dark Patterns Harms

- Harms brought by dark patterns, and especially non-material harms, can be hard to identify (and measure) due to their inherent characteristics and the fact that different users may be harmed by the same dark pattern in different degrees.
- As a result, establishing a *counterfactual scenario* outlining how users would have been impacted by a specific user interface but for the dark pattern is challenging.

Santos et al., *No harm no foul: how harms caused by dark patterns are conceptualised and tackled under EU data protection, consumer and competition laws*, [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4877439](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4877439)

# Regulating Dark Patterns Harms

- Harm *varies* and is *subjective* or *contextual* to each person that values one right (e.g. autonomy) to different extents, so the same event and consequences may have different impacts on different individuals, depending on whether or not someone is vulnerable.
- Harms can be difficult to avoid due to *economic circumstances* such as market power or barriers to switching.

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# The EU Unfair Commercial Practices Directive (UCPD)

- The UCPD applies to all business-to-commercial practices in the EU and UK.
- It covers almost any decision that a consumer has to make while using a digital service or in a physical store. This includes decisions made before a commercial transaction, during it, or after. So that means it covers marketing, advertising, personalisation, choice architecture, and deceptive patterns (although deceptive patterns aren't explicitly defined in the law).
- The UCPD also doesn't require intent, so if a design is shown to be unfair, that's good enough – it doesn't need proof that the designers or business owners created it on purpose.

# UCPD Principles

- **General prohibition of unfair commercial practices:** the UCPD prohibits any commercial practice that is contrary to the requirements of professional diligence and materially distorts or is likely to distort the economic behaviour of the average consumer.
- **Misleading practices:** the UCPD prohibits misleading actions and omissions, which involve providing false information or presenting information in a way that deceives or is likely to deceive the average consumer. This includes misleading advertising, false claims about products or services, and other deceptive tactics.
- **Aggressive practices:** the UCPD prohibits aggressive commercial practices, which significantly impair the average consumer's freedom of choice or conduct through harassment, coercion, or undue influence. This includes high-pressure sales tactics, persistent and unwanted solicitations, and exploiting a consumer's vulnerability or fear.



# UCPD Forbidden Practices

- (2) Fake trust markers: falsely displaying a trust mark, quality mark or similar.
- (4) Fake endorsements: falsely claiming a trader or product has an endorsement approved, endorsed or authorised by a public or private body.
- (5) Bait advertising: advertising a certain price when the trader knows they cannot offer that product, or only has a few in stock at that price.
- (6) Bait and switch: advertising a product at a certain price then refusing to offer it, with the intention of promoting a different product.
- (7) Fake urgency: falsely stating that a product or terms will only be available for a very limited time, to rush the user and deprive them of the time to make an informed choice.
- (11) Covert advertising: presenting paid advertorial without disclosing that it is an advertisement.
- (20) Fake free offers: describing something as free when it's not.
- (21) Fake invoices: claiming the user owes a bill when they do not.

# The General Data Protection Regulation (GDPR)

- The General Data Protection Regulation (GDPR) is a European Union law that sets strict rules on how organizations collect, store, and process personal data, ensuring individuals have greater control over their information.
- It mandates transparency, security, and accountability, with hefty fines for non-compliance.

# The General Data Protection Regulation (GDPR)

- “Any meso- or low-level individual data-related harm (material and non-material) identified in our taxonomy could, in theory, fall among those that can be remedied under the GDPR, and thus entitle the data subject to redress under Art. 82 GDPR”

Santos et al., No harm no foul: how harms caused by dark patterns are conceptualised and tackled under EU data protection, consumer and competition laws, [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4877439](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4877439)

# The Digital Markets Act (DMA)

- The Digital Markets Act (DMA) is an EU regulation designed to promote fair competition in the digital sector by imposing strict rules on large online platforms, known as “gatekeepers.”
  - On [6 September 2023](#) the European Commission designated for the first time six gatekeepers: Alphabet, Amazon, Apple, ByteDance, Meta, Microsoft.
- It aims to prevent anti-competitive practices, ensure market openness, and enhance consumer choice.
- Violations may result in fines up to 10% of global turnover (20% for repeat offenders) or, in extreme cases, breaking up or banning gatekeepers from the EU.

# The Digital Markets Act (DMA)

- Gatekeepers cannot:
  - Undermine user choice regarding tracking for ads off-platform (Recitals 36, 37).
  - Repeatedly prompt users for data consent after refusal (Recital 37).
  - Restrict installation of third-party apps/stores (Recital 41).
  - Interfere with uninstalling pre-installed apps (Recital 49).
  - Complicate data export (Recital 59).
  - Make unsubscribing harder than subscribing (Recital 63).

# The Artificial Intelligence Act (AI Act)

- The Artificial Intelligence Act (AI Act) is an EU regulation that establishes a risk-based framework for AI systems, ensuring they are safe, transparent, and respect fundamental rights.
- It categorizes AI applications by risk levels, imposing stricter requirements on high-risk AI while banning harmful uses like social scoring.

# The Artificial Intelligence Act (AI Act)

- *“The AI Act contains provisions that explicitly refer to dark patterns and manipulative design:”*
  - Article 5(1)(a) prohibits AI systems that deploy subliminal techniques or purposefully manipulative or deceptive techniques, with the objective, or the effect of, materially distorting the behaviour of a person or a group of persons by appreciably impairing their ability to make an informed decision, thereby causing a person to take a decision that that person would not have otherwise taken in a manner that causes or is likely to cause that person, another person or group of persons significant harm.
  - Article 5(1)(b) prohibits practices that exploit the vulnerabilities of a person or a specific group of persons due to their age, disability or a specific social or economic situation, to or the effect of materially distorting the behaviour of that person or a person pertaining to that group in a manner that causes or is reasonably likely to cause that person or another person significant harm.

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# The Digital Services Act (DSA)

- The Digital Services Act (DSA) is an EU regulation that enhances accountability and transparency for online platforms by setting rules to combat illegal content, misinformation, and protect user rights.
- It requires platforms to implement stricter content moderation, risk assessments, and data access for regulators to ensure a safer digital environment.



# The Digital Services Act (DSA)

- Very Large Online Platforms (VLOPs) must comply with the most stringent rules of the DSA.
- [On April 25, 2023](#), the European Commission designated 17 VLOPs, including e-commerce services (Amazon, AliExpress, ...), social media (TikTok, Instagram, ...), and other services such as Google Maps and Wikipedia.

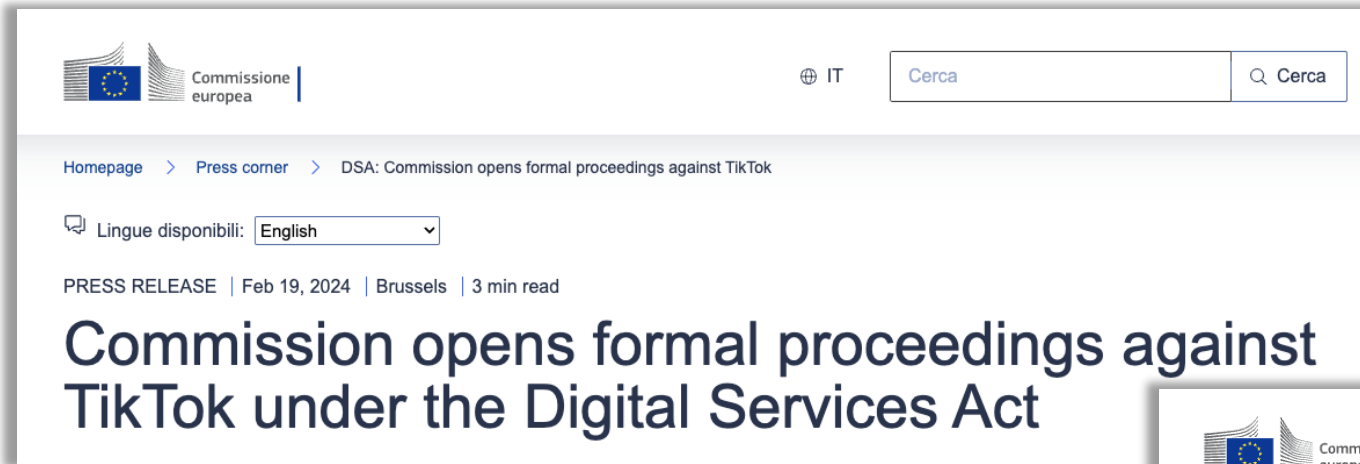
# Deceptive Patterns provisions in the DSA

- Article 25 prohibition ‘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.’
- Recital 67 definition: ‘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’
- Forbidden Deceptive Patterns (Recital 67)
  - **Misdirection:** ‘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’.
  - **Nagging:** ‘It should also include repeatedly requesting a recipient of the service to make a choice where such a choice has already been made’.
  - **Hard to cancel:** ‘making the procedure of cancelling a service significantly more cumbersome than signing up to it, or making certain choices more difficult or time-consuming than others, making it unreasonably difficult to discontinue purchases’.
  - **Obstruction:** ‘default settings that are very difficult to change, and so unreasonably bias the decision making of the recipient of the service, in a way that distorts and impairs their autonomy, decision-making and choice’

# Enforcement & risk mitigation in the DSA

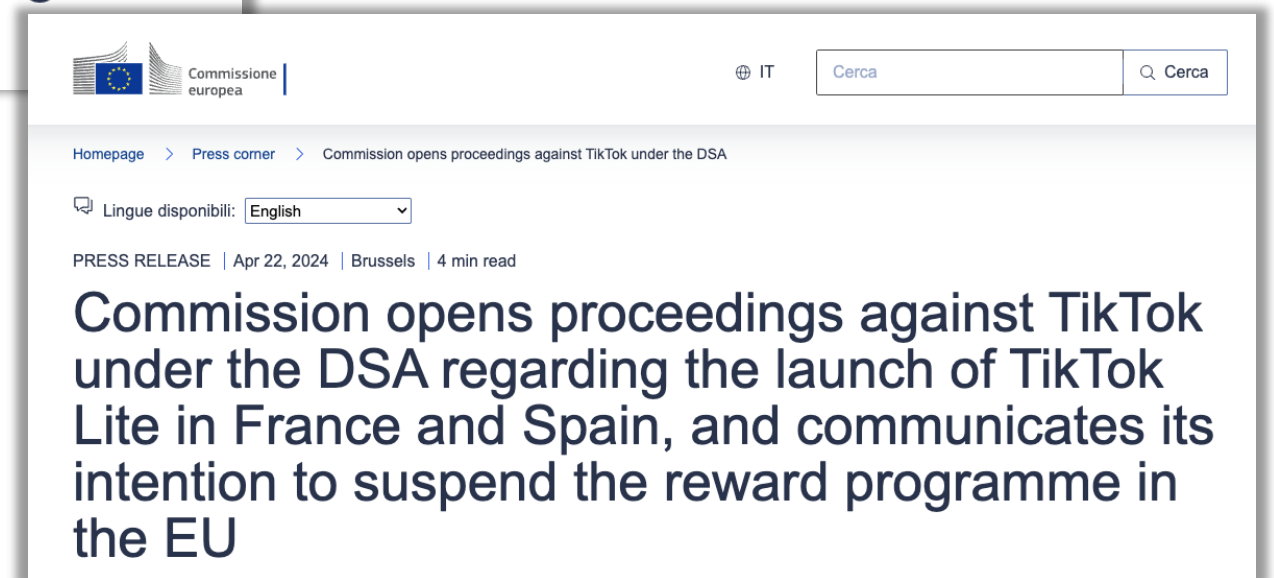
- **Risk Assessment & Audits (Applies to VLOPs and VLOSEs):**
  - **Annual Risk Assessments:** Platforms must assess risks, including deceptive patterns (Article 34).
  - **External Audits:** Independent audits to ensure compliance, covering deceptive patterns (Article 37).
  - **Public Audit Reports:** Audit findings shared publicly, helping enforcement efforts (Article 42).
- **Penalties & Enforcement:**
  - Fines up to 6% of global turnover for non-compliance.
  - Enforcement by the European Commission or individual member states (Article 49).
  - Repeat offenders may face bans from the EU.

# TikTok Lite vs. DSA



The screenshot shows the top of a press release page on the European Commission website. The header includes the Commission logo, the text 'Commissione europea', a language selector set to 'IT', and a search bar with the text 'Cerca'. The breadcrumb trail reads 'Homepage > Press corner > DSA: Commission opens formal proceedings against TikTok'. Below this is a language dropdown menu set to 'English'. The main heading of the press release is 'Commission opens formal proceedings against TikTok under the Digital Services Act'. Metadata includes 'PRESS RELEASE | Feb 19, 2024 | Brussels | 3 min read'.

- [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_24\\_6487](https://ec.europa.eu/commission/presscorner/detail/en/ip_24_6487)
- [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_24\\_2227](https://ec.europa.eu/commission/presscorner/detail/en/ip_24_2227)



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# TikTok Lite vs. DSA

Home » Digital » Commission prevails over TikTok. Lite Rewards program withdrawn from EU territory

## Commission prevails over TikTok. Lite Rewards program withdrawn from EU territory

Chinese platform's commitments on performing specific activities have been investigated through Digital Services Act. Addiction to rewards and adverse effects.

## TikTok commits to permanently withdraw TikTok Lite Rewards programme from the EU to comply with the Digital Services Act

### CONTENUTI DELLA PAGINA

- In alto
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- Temi correlati
- PDF stampabile
- Contatti per i media

Today, the Commission has **made TikTok's commitments to permanently withdraw TikTok Lite Rewards programme from the EU binding**. These commitments have been submitted by TikTok to address the concerns raised by the Commission in the [formal proceedings](#) opened against TikTok on 22 April and ensure compliance with the [Digital Services Act \(DSA\)](#).

The platform has made the following commitments:

- **A commitment to withdraw the TikTok Lite Rewards programme from the EU, permanently;**
- **A commitment not to launch any other programme which would circumvent the withdrawal.**

<https://www.eunews.it/en/2024/08/05/tiktok-lite-rewards-withdrawn-eu/>

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