

An Overview of Guidelines on Dark Patterns¹

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Abstract

Dark patterns have been used to describe design practices that trick or manipulate users into making certain choices. One out of every four internet users experience dark patterns in the digital world. In this paper, all vital guidelines issued by government commissions or authorities across the globe have been studied. These countries include mainly United States of America (USA), South Korea, India, and European Union, along with California, Australia, United Kingdom, Kenya, and Argentina. The comparative analysis of the guidelines for dark patterns from major government commissions or authorities has been performed on basis of national guidelines, types of dark patterns and following norms of guidelines. It is observed that there is a little to no enforcement effort by the required authorities to counter dark patterns. All the countries across the globe should come together to create universal guidelines against dark patterns, with a global authority or commission.

Keywords

Dark Pattern, Guidelines, Applicable Laws, Government commissions, Regulatory Authorities

1. Introduction

There are about 5.35 billion people using the internet across the globe, which is equal to 66.2% of the world's total population [8]. Majority of these users may have encountered some dark patterns. Dark patterns have been used to describe design practices that trick or manipulate users into making choices that may cause harm [4]. This in turn will also affect digital trust of users. One such dark pattern is depicted in Figure 1, which is a dark pattern from an eCommerce website - JustFab.com. They put false countdown timers only to add urgency to a sale.

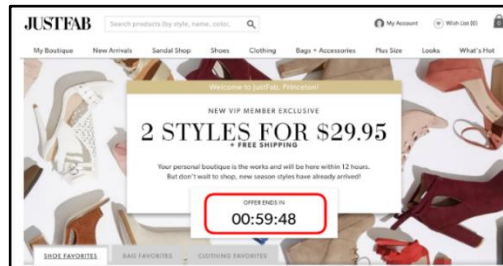


Figure 1: Example of Dark Pattern via Fyresite (<https://www.fyresite.com/dark-patterns-a-new-scientific-look-at-ux-deception/>)

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Another study was conducted by Princeton University, USA in the year 2019. It found 1,818 instances of dark patterns specifically on shopping websites. These instances all together represented 15 types of dark patterns in 7 broad categories. These dark patterns were found on 1,254 out of around 11,000 shopping websites. It amounts to around 11.1 % of the dataset used. It also found that there were 22 third-party entities that provided the shopping websites the services required to create and implement dark patterns. Two of the above entities even publicly advertised that they can help websites to use deceptive messages [1].

With such a big issue in hand, several national government commissions or authorities have taken initiatives to counter dark patterns as well as spread awareness of the problems caused by dark patterns. A few government commissions or authorities have taken a direct approach by clearly providing guidelines against the dark patterns. Some other government agencies took an indirect approach to restricting some of the dark patterns by creating amendments to their existing privacy or digital laws. A few other government agencies have taken actions against the violators based on interpretation of the existing laws. Hence, this guideline overview discusses the vital guidelines on dark patterns and aims to shed light on the insufficient effort by the government commissions or authorities.

2. Related Work

Following are the four vital national guideline documents or reports on dark patterns. These guideline documents or reports are discussed in chronological order of their publication.

The first document represents a guideline document for dark patterns published in March 2022 by the European Data Protection Board (EDPB) for the countries under the European Union (EU) region. The scope of this document is to recommend developers and give guidance for the design of the interface of social media platforms. The document has categorized the dark patterns into 6 categories and 15 sub-categories along with examples [2, 10]. This categorization of dark patterns comes with special reference to the principles of lawfulness, fairness, transparency, purpose limitation and data minimization in the design of user-interfaces. The enforcement for the violations of dark patterns is in conjunction with the General Data Protection Regulation (GDPR) - 2016 enforcement.

The second document is a report for dark patterns published in Sept. 2022 by the Federal Trade Commission (FTC) for the USA. This report discusses key topics from the 'Bringing Dark Patterns to Light' workshop and academic literature. FTC makes practical recommendations for entities, aiding them when they develop, design, and improve their online interfaces. The report includes the rise of dark patterns in the digital marketplace and 4 common categories of dark patterns with relevant examples [11]. This report also sends two strong signals. First, customers that the FTC is on their side and will be acting against the violators of dark patterns. Second, businesses that use dark patterns - they are being keenly observed based on their actions.

The third document represents a report published in Aug. 2023 by the Korean Fair-Trade Commission (KFTC) for South Korea. This report establishes a regulatory measure to control online dark patterns. The authorities involved in this process are KFTC, Korean Communication Commission (KCC) and the Personal Information Protection Commission (PIPC). The report has categorized dark patterns into 4 major categories and 19 distinct types and provided recommendations for each of the types [13]. The KFTC has made a provision of punishment for violation of the dark pattern guidelines, as administrative fines based on the company's / entity's total sales of that financial year.

The fourth document represents a guideline document that was published in Nov. 2023 by the Central Consumer Protection Authority (CCPA) in India. It states that the guidelines against dark

patterns prohibit any person, including platforms, from engaging in any form of dark pattern practice. The report has provided specific types of dark patterns that are prohibited. The report has categorized dark patterns into 13 different types and provided relevant examples [12]. These dark pattern guidelines were published after receiving the recommendations and reviews from Asia Internet Coalition (AIC) [20]. The dark pattern guidelines are a part of the Consumer Protection Act - 2019 and the punishment for violation of the guidelines is in conjunction with the enforcement of Consumer Protection Act - 2019.

Apart from above given national guideline documents on dark patterns, a few other countries have also taken steps to counter the dark patterns in their online ecosystem. These countries do not have any specific guidelines like the four discussed cases in this section.

In California, the California Consumer Privacy Act (CCPA) - 2018 has regulations implemented to suppress the use of dark patterns. The CCPA prohibits the use of dark patterns that have a substantial effect on the consumer's choice to opt-out of the schemes that benefit the companies or entities [21, 22]. They have also defined some examples of such dark patterns which include: Use of confusing language like double-negatives and more. Companies or entities that have violated these guidelines, have a 30-day grace period to make changes to their website / app. Failure to make required changes will result in civil penalties under the CCPA [23].

In Australia, the Office of the Australian Information Commission (OAIC) has identified some entities operating online using dark patterns that are designed to nudge the users. Dark patterns in trade or commerce are considered as a violation of the Australian Consumer Law (ACL) - 2010. The Australian Competition and Consumer Commission (ACCC) has also released a guide on 'Online Platforms and the Australian Consumer Law' in 2019, which has outlined the legal requirements for online platforms for effective consumer protection [14].

The United Kingdom (UK) has taken steps to address dark patterns. The Competition and Markets Authority (CMA) has a new phase of 'Online Rip-off Tip-off' campaign. This campaign aims to encourage users to 'spot and avoid misleading online sales tactics' and to report the organizations involved. The UK government is actively working on reducing the use of dark patterns in online interfaces [16].

The National Directorate on Consumer Protection and Consumer Arbitration (DNDCYAC) in Argentina has worked with the United Nations Conference on Trade and Development (UNCTAD) on a report 'Consumer Education and Business Guidance on Dark Commercial Patterns' [17]. It has recently issued Resolution 994/2021, that forbids some dark patterns or deceptive clauses, for example, sneaking into a basket and presuming a consent from the consumer [18].

In Kenya, the Part VI of the Competition Act No. 12 - 2010, dealing with Consumer Welfare contains provisions such as false or misleading representations and unconscionable conduct [17]. The Competition Authority of Kenya (CAK) relies upon these provisions to deal with dark patterns. These specific provisions are on the supply of products, but they are also used by the government for enforcement against dark patterns [19].

3. Comparative Discussion of Guidelines on Dark Patterns

This section is mainly focused on a comprehensive comparison among the four guidelines documents of leading G20 countries or regional bodies [5], on dark patterns. The authorities that have given these guidelines are: CCPA (Central Consumer Protection Authority) for India, EDPB (European Data Protection Board) for European Union, KFTC (Korean Federal Trade Commission) for South Korea and FTC (Federal Trade Commission) for USA.

3.1. Comparison among National Guidelines for Dark Patterns across the Globe

Table 1 contains a comparison among guidelines for dark patterns given by regulatory commissions or authorities viz. CCPA, EDPB, KFTC and FTC. The comparative analysis is done on key parameters like Regulatory Body, Geographical Region, Applicable Laws, Categories of Dark Patterns, Enforcement Mechanism, Reports and Recent Enforcements.

Table 1: Comparison among National Guidelines for Dark Patterns across the Globe

National Guidelines Aspects	CCPA	EDPB	KFTC	FTC
Regulatory Body	Central Consumer Protection Authority	European Data Protection Board	Korean Fair-Trade Commission	Federal Trade Commission
Geographical Region	India	European Union (EU)	Republic of Korea	United States of America (USA)
Publishing Date	November 2023	March 2022	September 2023	September 2022 (latest update)
Applicable Laws	Section 18, Consumer Protection Act, 2019	Chapter 2&3, General Data Protection Regulation (2016)	Personal Information Protection Act (PIPA), 2011 & e-Commerce Act, 2019	Section 5, FTC Act, 2004
Definition of Dark Pattern	Deceptive practices or design patterns using user interface on any platform that is designed to mislead / trick users	No specific definition, but emphasizes transparency and fairness.	No specific definition, but emphasizes transparency and fairness	Deceptive practices that mislead or harm consumers
Transparency Requirements	No specific requirements, but emphasis on disclosure.	Detailed transparency requirements regarding data processing and rights of data subjects, under Article 5, 7, 12, 13 and 14.	No specific requirements, but emphasis on disclosure.	Clear and conspicuous of material terms and conditions.
Enforcement Mechanism	Imprisonment of 6 months or a fine of up to INR 2 million (USD 24k) or both	Administrative fine up to EUR 20 million (USD 21.5 million) or up to 4% of the total worldwide turnover of the preceding financial year, whichever is higher	Administrative fines up to 3% of total sales	Fines, Injunctions and Legal actions
Updates and Amendments	No recent amendments or updates	Periodic revisions and amendments based on the evolving technology	Amendments and Updates through legislative process	Periodic updates and revisions based on upcoming issues
Case Studies and Reports	No recent case study or reports	Regular report on General Data	No recent case study or reports	Annual reports on enforcement actions

National Guidelines Aspects	CCPA	EDPB	KFTC	FTC
Recent Enforcements	No enforcement till date	Protection Regulation (GDPR) regulation and compliance The Italian Data Protection Authority (Garante) issued a EUR 300 k (USD 323 k) fine for the use of dark patterns in breach of the EU General Data Protection Regulation (GDPR)	No enforcement till date	and consumer complaints In March 2023, FTC ordered Epic Games to pay USD 245 million for violation of 'Design elements that lead to unauthorized charges'

The vital observations from the comparative analysis of the guidelines on dark patterns given by different commissions or authorities as depicted in table 1, are as follows:

- All four authorities i.e. CCPA, KFTC, EDPB, KFTC focus on '**Online Consumer Protection**', while formulating the national guidelines for dark patterns. The FTC and EDPB also focus on '**Data Protection**' and '**Consumer Consent Issues**'.
- The guidelines for dark patterns are issued by a specific regulatory authority, in the case of the CCPA and the KFTC; they are also the enforcement authorities. In the case of the EDPB and the FTC, the guidelines for dark patterns are issued by them as broader regulatory authorities; but they do not look into enforcement. The enforcement is taken care of by the related USA state authorities in case of the FTC. And the national authorities in the EU in case of EDPB as per their respective jurisdictions.
- The prohibited practices related to guidelines, show the priorities and concerns of the specific regulatory authorities or commissions. For example, CCPA focuses more on dark patterns related with consumer protection like 'Basket Sneaking' and 'False Urgency'; whereas the EDPB focuses more on data protection and consumer consent issues like 'Language Discontinuity' and 'Conflicting Information'.
- **The CCPA and the KFTC authorities have not given any specific transparency requirements. The EDPB and the FTC have provided specific transparency requirements, which are specifically targeted towards 'Consent Issues' and 'Data Privacy'.**
- All the guidelines have a wide range of enforcement mechanisms like **administrative fines, legal actions, injunctions, and imprisonment**. CCPA is the only authority to **include imprisonment as an enforcement mechanism in the guidelines**.
- The approach on updates and amendments related with guidelines differ significantly. Some authorities like the FTC mentions regular updates on emerging issues, while other authorities focus on periodic reviews of technical advancements and user reviews. The KFTC and the CCPA have not made any updates and amendments to their guidelines as these authorities are the latest to issue guidelines on dark patterns.
- In recent times, there have been some enforcements, the FTC where they have fined USD 245 million to Epic Games (the makers of Fortnite video game). In another enforcement, the

Italian Data Protection Authority (based on the EDPB guidelines) fined EUR 300 k (USD 323 k) to a marketing agency for breach of the dark pattern guidelines.

- UK’s Competition and Markets Authority (CMA) held Microsoft Corp. liable for its unclear upfront terms, difficulty in turning off auto-renewal (Subscription Trap). Their new users were unknowingly paying for unused services in their game pass membership [24]. This enforcement was conducted based on Consumer Protection from Unfair Trading Regulations - 2008; Part 2 of the Consumer Rights Act (CRA) - 2015; and the Consumer Contracts Regulations (CCRs) - 2013. Microsoft has now made significant improvements following the investigation by CMA [25].
- The Swedish Data Protection Authority (IMY) investigated Klarna Bank AB. It is a multinational company that provides credit and non-credit solutions in 17 countries through various financial services [26]. Klarna was held liable for misleading and hiding information on data sharing, data storage and data processing from its users. The enforcement was conducted based on several articles from the GDPR. IMY then imposed a fine of SEK 7,500,000 (USD 716 k) [27].

3.2. Comparison among Guidelines for Dark Patterns on Basis of Their Types

There are a vast variety of dark patterns accessible to companies or entities. All government commissions or authorities do not recognize all the types of dark patterns. Table 2 gives the comparative analysis of the different types of dark patterns defined by regulatory commissions or authorities viz. FTC, EDPB, CCPA and KFTC in their guidelines. The Table 2 is divided into three parts High-Level, Meso-Level and Low-Level Patterns [6]. This classification could help in both detecting these practices and forming policies to prevent them:

High-Level Patterns: These are the most abstract types of dark patterns. These include general strategies that use manipulative or deceptive elements. These patterns are not confined to any specific context and can be applied across various devices or technologies and application types [6].

Meso-Level Patterns: This type of dark pattern ties the gap between high- and low-level dark patterns. These include a specific approach at undermining the user’s ability to make an informed decision. These patterns can be interpreted in a way that is required for a specific context [6].

Low-Level Patterns: These types of dark patterns are very background dependent and include precise execution methods that limits the user’s ability to make decision. These patterns are described in visual or temporal forms or both. These patterns can be detected through various means which include algorithmic, manual or any technical means [6].

Table 2: Comparison among National Guidelines on basis of Types of Dark Patterns

High-Level Pattern	Meso-Level Pattern	Low-Level Pattern
Obstruction D: FTC CCPA KFTC I: EDPB	Roach Motel (D: FTC)	Immortal Accounts (D: FTC)
	Creating Barriers	Dead End (D: EDPB)
	Adding Steps (I: EDPB)	Price Comparison Prevention (D: FTC KFTC)
Sneaking I: FTC EDPB CCPA KFTC	Bait and Switch (D: FTC EDPB CCPA)	Privacy Maze (D: EDPB)
	Hidden Information	Disguised Ad (D: FTC CCPA KFTC)
		Sneak into Basket (D: FTC EDPB CCPA)
		Drip Pricing, Hidden Cost

High-Level Pattern	Meso-Level Pattern	Low-Level Pattern
		(D: FTC EDPB CCPA I: KFTC)
	(De)contextualizing Cues	Conflicting Information (D: EDPB I: CCPA)
Interface Interference D: CCPA KFTC I: FTC EDPB	Manipulating Choice Architecture	False Hierarchy (D: KFTC I: EDPB)
	Emotional or Sensory Manipulation (D: CCPA KFTC)	Pressured Selling (I: FTC CCPA)
	Trick Questions (D: FTC EDPB CCPA KFTC)	Positive or Negative Framing (I: EDPB CCPA KFTC)
	Choice Overload (D: KFTC I: EDPB)	-
	Hidden Information (D: FTC KFTC I: EDPB)	-
	Language Inaccessibility	Wrong Language (I: EDPB)
Forced Action D: CCPA I: FTC KFTC	Nagging (D: FTC CCPA I: EDPB KFTC)	-
	Forced Continuity (I: FTC EDPB)	-
Social Engineering	Scarcity and Popularity Claims (I: FTC KFTC)	High Demand (D: FTC I: KFTC)
	Social Proof	Low Stock (D: FTC I: KFTC)
	Urgency (D: FTC KFTC)	Activity Message (D: FTC CCPA I: KFTC)
		Countdown Timer (D: FTC CCPA I: KFTC)
		Limited Time Message (D: FTC CCPA I: KFTC)
	Shaming	Confirmshaming (D: FTC CCPA I: EDPB)

Table 2: Sources indicated in green is for FTC, turquoise is for EDPB, red is for CCPA and pink is for KFTC as abbreviated. "D" indicates a direct use of the pattern in the original source of the document and "I" indicates an inferred similarity between different terminology used in the document.

The essential observations from the comparative analysis of the different types of dark patterns given by commissions or authorities as depicted in table 2, are as follows:

- Most of the **High-Level Patterns** are recognized in their **reports or guidelines by almost all the government authorities or commission**. Some of the patterns are recognized directly and some are them are inferred indirectly in their documents.
- It is observed that **FTC has the most well-rounded guidelines** in their report amongst all. They have recognized the greatest number of patterns compared to other authorities.
- EDPB, CCPA and KFTC have recognized almost equal number of types of dark patterns.

- The types of dark patterns that are addressed only in report given by the FTC are: ‘Roach Motel’, ‘Immortal Account’ and ‘High Demand’. The number is small because the guidelines given by the **FTC are very similar to the guidelines given by EDPB**.
- The types of dark patterns that are recognized only in guidelines given by the EDPB are: ‘Dead End’, ‘Adding Steps’, ‘Privacy Maze’, ‘Conflicting Information’ and ‘Wrong Language’. The list is sizable because the EDPB also focused on ‘Data Protection’ and ‘Consumer Consent Issues’.
- The types of dark patterns that are specifically covered in guidelines given by the CCPA are: ‘Forced Action’.
- The types of dark patterns acknowledged only in guidelines given by the KFTC are: ‘Choice Overload’ and ‘False Hierarchy’. The list is small as the guidelines published by **KFTC and CCPA are very similar**.

3.3. Comparison among Guidelines for dark patterns on basis of Following Norms of Guidelines

It is very important to write effective guidelines of dark patterns. Effective guidelines will always play a pivotal role in helping users and guiding developers towards practices that prioritize user well-being. While writing guidelines for dark patterns, it is important to follow the norms of guidelines given below [7]. These norms of guidelines have been developed with due consideration to Ben Shneiderman’s Eight Golden Rules of Interface Design [4].

- **Start with a Verb:** A guideline should start with an actionable verb to convey a specific action or behavior.
- **Be Concise:** A guideline should be brief and to the point, ensuring that it is easy to understand and implement.
- **One Idea per Guideline:** A guideline should focus on a single idea or concept to avoid confusion and maintain clarity.
- **Use Simple Language:** A guideline should use uncomplicated language to enhance accessibility for a diverse audience.
- **Ensure Actionability:** A guideline should be such that it can be easily translated into practical actions.
- **Length:** An ideal guideline should be no more than thirteen words long.

Table 3 contains the comparison among the guidelines issued by regulatory commissions or authorities viz. CCPA, EDPB and KFTC on following norms of guidelines. The comparison is done on essential norms like Use Simple Language, One Idea per Guideline, Ensure Actionability, Be Concise, Start with a Verb, Length of about 13 words and Multi-Language Support.

Table 3: Comparison among National Guidelines for Following Norms of Guidelines

Guideline Norms	CCPA	EDPB	KFTC
Use Simple Language	Followed	Followed	Followed
One Idea per Guideline	Followed	Followed	Followed
Ensure Actionability	Followed	Followed	Followed

Guideline Norms	CCPA	EDPB	KFTC
Be Concise	Followed	Followed	Sometimes Followed
Start with a Verb	Sometimes Followed	Sometimes Followed	Sometimes Followed
Length (13 words)	Not Followed	Not Followed	Not Followed
Multi-Language Support	Followed (English + Hindi)	Followed (English + 23 EU languages)	Somewhat Followed (Korean + English Summary)
Guideline Rank for Compliance	2	1	Lacks Compliance

The key observations from the comparative analysis among the guidelines issued by authorities on aspects to keep in mind while writing the regulatory guidelines as depicted in table 3, are as follows:

- The rules that are followed by all the guidelines are: 'Use Simple Language', 'One Idea per Guidelines' and 'Ensure Accountability'.
- None of the guidelines comply with the guideline length which is 13 words.
- The EDPB guidelines are the most user friendly as they officially provide the guidelines in **English + 23 EU languages**, followed by CCPA who provides the guidelines in **Hindi + English**. KFTC guidelines lack user friendliness as the guidelines are published in **Korean and an English summary is available**.
- EDPB guidelines rank **highest in compliance**, followed by CCPA guidelines, while KFTC guidelines **lack compliance**.

4. Conclusion and Future Work

A handful number of countries have published guidelines against dark patterns and these guidelines differ from one another. A few numbers of dark pattern types are recognized in these guidelines. The government commissions or authorities of many countries are still using interpretation of the existing laws to tackle dark patterns. This shows that there has been a limited effort taken by several governments to define suitable guidelines against dark patterns.

The comparative study of dark patterns has highlighted several interesting aspects such as a focus on consumer consent, consumer protection, their transparency requirements and norms of guidelines followed. It is observed that there is a little enforcement effort by the required authorities to counter dark patterns. Companies are still openly using these dark patterns and there have been no enforcement actions against them. The respective authorities must understand that even after defining guidelines; they are required to take some serious enforcement action against the violators.

The variation and dissimilarities among different guidelines proposed by commissions or authorities have made it challenging for the companies / entities to comply with guidelines for dark patterns. All the countries across the globe should come together to create universal guidelines against dark patterns, with a global authority or commission.

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