# The Ethics of Dark Patterns

Introduction

When I was a kid, I was one of many who discovered Minecraft. I would create worlds with my older brother and his friend and we would build anything from big castles to race tracks. But at a certain point, I started to get bored, which is when I discovered the Minecraft modders community, which created new features and items to play around with. The only issue was that installing these mods meant tinkering with my computer. Being the tech-savvy kid I was, I quickly figured out how to install these mods, but I often ran into a problem when trying to download these mods: Where is the download button?

Look at this website featuring a popular mod. Which one of these download buttons downloads the mod? The answer is none of them. The actual download button is tucked away at the bottom of the page. This was my first ever experience with dark patterns. Thankfully, I didn't fall for these fake downloads but thousands of people every day fall for advertisements like these, installing something they did not consent to on their computer. What are these dark patterns and how can we address them on not only a legislative level but also on an ethical level?
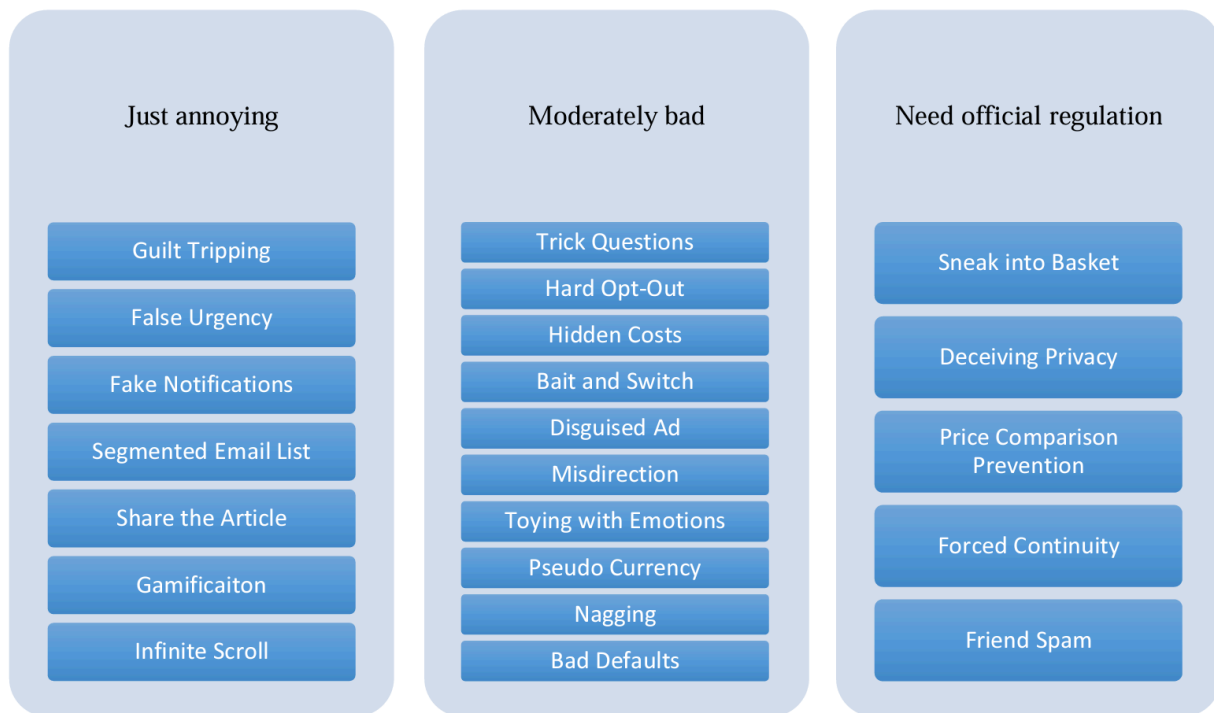
What are Dark Patterns?

According to a paper written by researchers at Purdue, dark patterns are defined as 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., 2018, p. 1). Dark patterns are usually created at the behest of whoever commissioned the design and are (mostly) not a practice that designers enjoy partaking in. The fake download buttons are certainly an example of dark patterns but this specific case is very egregious in its intentions. Emulating a download button to redirect users to something they did not mean to download is an example of phishing, which is not necessarily illegal but is regulated by fraud and identity theft laws in the US. Dark patterns employed by large corporations are much harder to spot and regulate as they usually fall short of being illegal but are certainly not ethical. A great example of a dark pattern utilized by many companies is preselection, which is a type of interface interference where an option is privileged over others, confusing the user (Gray et al., 2018, p. 7). Preselection specifically auto-selects a box that a user would most likely not want selected, like sharing their email for advertising purposes. Donald Trump's election campaign notably used this dark pattern in 2021 to trick supporters into donating more than they expected to by preselecting the recurring donation box (Brignull, p. Preselection).
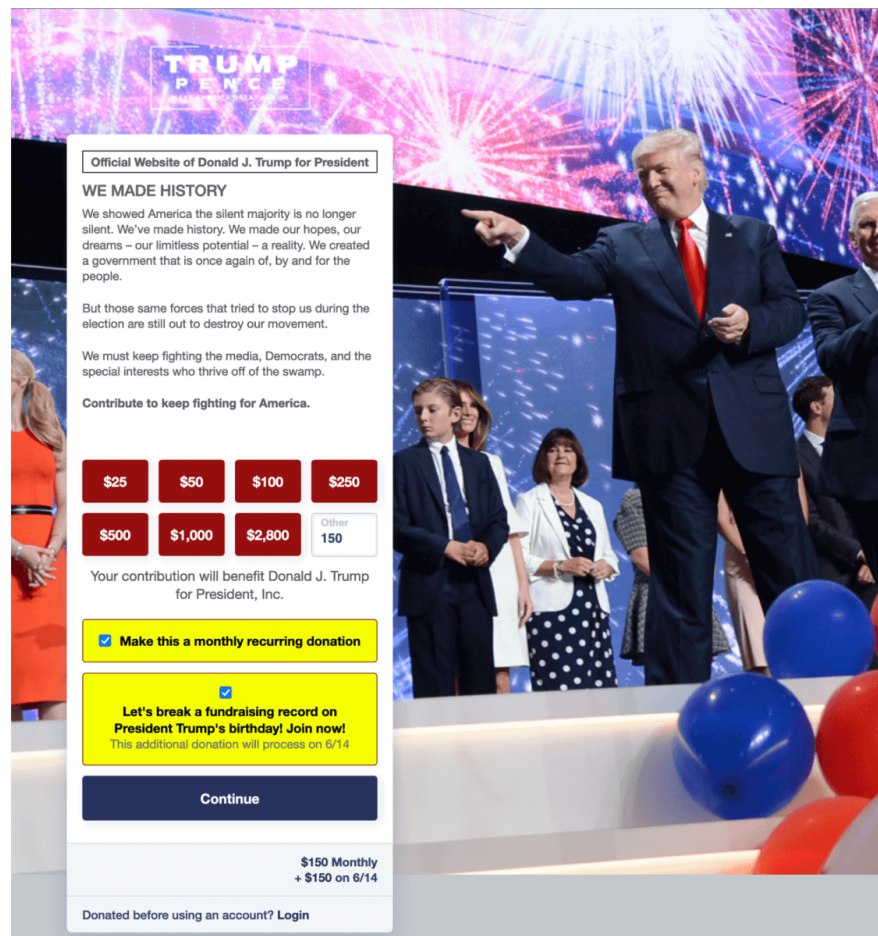
Dark patterns were not created in a vacuum. They stem from the larger practice of UI/UX design. Specifically in the UI space, there exist common patterns that designers use to create interfaces. These UI patterns are why many websites have similar layouts. For example, almost all mobile apps have a navigation bar UI pattern at the bottom of the screen to assist with navigating through the app. Also, many navigation bars look similar visually because when designing for a platform like the iPhone, Apple provides interface guidelines for how the UI patterns should be implemented ("Tab bars," 2023). Dark patterns are a by-product of UI patterns. If UI patterns exist to put the user's experience first, dark patterns exist to put the company's interests first (Cara, 2019, p. 105). Putting a company's interests first means maximizing profit which usually means exploiting the consumer.

Regulating Dark Patterns

Corina Cara, the author of *Dark Patterns in the Media: A Systematic Review*, classifies common design dark patterns into three levels of harm to users: just annoying, moderately bad, and need official regulation.

Just annoying	Moderately bad	Need official regulation
Guilt Tripping	Trick Questions	Sneak into Basket
False Urgency	Hard Opt-Out	Deceiving Privacy
Fake Notifications	Hidden Costs	Price Comparison Prevention
Segmented Email List	Bait and Switch	Forced Continuity
Share the Article	Disguised Ad	Friend Spam
Gamificaiton	Misdirection	
Infinite Scroll	Toying with Emotions	
	Pseudo Currency	
	Nagging	
	Bad Defaults	

While dark patterns are inherently bad for the consumer, that does not necessarily mean they should be regulated. For example, infinite scroll is a dark pattern that is essential to the function of many popular apps like TikTok, but preliminary studies on infinite scroll have been shown to have negative effects on mental health (Satici et al., 2022). There is nothing illegal or even necessarily wrong ethically about infinite scroll, and users even like the feature, but it still negatively affects users. That is to say, dark patterns are more nuanced regarding regulation than a blanket ban. Dark patterns have already been addressed to some extent in Europe via legislation like GDPR, the Digital Markets and Services Act, and the AI Act. However, these attempts at regulation can be improved to better regulate dark patterns. The United States on the other hand does not have any federal laws currently that regulate dark patterns

though state laws have been introduced that do. Through the lens of Lessig's four modalities of regulation, we can regulate dark patterns through the law and social norms, specifically ethics (Lessig, 1998).

Regulating Dark Patterns via EU law

In July of 2022, the European Union passed the Digital Services Act (DSA), which outlined legislation to regulate online intermediaries like social networks, app stores, and marketplaces. The DSA serves to prevent illegal and harmful activities and curb the spread of disinformation ("The Digital Services Act"). Article 25 of the DSA addresses dark patterns, writing "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" (Regulation: Digital Services Act, 2022, Art. 25). This article determines that dark patterns cannot be used in online platforms, but it still needs to define what dark patterns are and which ones they are regulating. In Recital 67 of the DSA, they articulate the following examples of dark patterns (Regulation: Digital Services Act, 2022, Recital 67):

1. 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.
2. 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. Repeatedly requesting a recipient of the service to make a choice where such a choice has already been made.
4. Making the procedure of cancelling a service significantly more cumbersome than signing up to it
5. Making certain choices more difficult or time-consuming than others
6. Making it unreasonably difficult to discontinue purchases or to sign out from a given online platform allowing consumers to conclude distance contracts with traders.
7. Deceiving the recipients of the service by nudging them into decisions on transactions, or by 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.

The DSA is a great first step in regulating dark patterns though we will not fully know how effective it is until the regulations apply in February 2024. One issue with Article 25 is that while this is the most clear-cut regulation of dark patterns, its scope is hampered by the General Data Protection Regulation (GDPR). GDPR has some legislation in place to regulate dark patterns but is enforced and assessed from a data privacy perspective (Guidelines on Dark Patterns in Social Media Platform Interfaces, 3/2022). This means that the governing bodies that enforce GDPR and the DSA need to coordinate their efforts, which can be messy. Overall, the Digital Services Act is a great step in the right direction but an act that specifically targets dark patterns may provide better enforcement by the EU.

Regulating Dark Patterns via US Law

The US is a fair amount behind on dark patterns regulation compared to the EU. The Federal Trade Commission has addressed dark patterns and even sued Age of Learning Inc. for its usage of dark patterns to rope users into recurring memberships, but this was litigated under FTC consumer protection laws, not a dedicated dark pattern law ("Federal Trade Commission vs. Age of Learning, Inc.). There is no federal law outlawing dark patterns in the United States, but California, Colorado, and Virginia have introduced legislation to address dark patterns. The California Privacy Rights Act and Virginia Consumer Data Protection Act do not directly address dark patterns but include dark patterns in their definitions of consent. California specifically considers dark patterns in its definition of consent, stating "agreement obtained through use of dark patterns does not constitute consent." These laws can be used to litigate dark patterns in the same way that the FTC uses consumer protection laws to litigate them, though this solution still falls short of directly regulating dark patterns. The Colorado Privacy Act is similar to the other two acts in the way it litigates based on consent, but it specifically accounts for consenting to the collection of sensitive data (Stauss et al., 2022). This means that dark patterns can be applied in more scenarios under the Colorado law. While these are all great steps forward, a large concern with these laws is that their enforcement is based on consent, which dark patterns often skirt. However, they do not directly address dark patterns. Until the United States ratifies a law that directly addresses dark patterns, its enforcement will be spotty at best.

Regulating Dark Patterns via Ethics

Everything in our world is designed in some regard, and the technology we use every day is no different. When a white supremacist opened fire on mosques in Christchurch New Zealand and live streamed the massacre, the video was shared more than 1.5 million times on Facebook alone. Facebook attempted to delete these posts but it kept increasing anyway because Facebook was designed that way. (Monteiro, 2019, p. 27) While design has been an intrinsic concept in our world for centuries, the field of UI/UX design is a relatively new industry. Due to this, the ethical considerations of design have only recently been discussed. Designer Victor Papanek first discussed the ethics of design in his 1971 book, *Design for the Real World*. "The designer is in a position where difficult moral and ethical choices have to be made. And there are many different ways of dealing with this ethical dilemma … Some have sold out to an employer and continue to design luxury items for a small privileged class … Others have chosen to teach architecture or design and work as design consultants and free-lancers only on those jobs they consider socially important." (Papanek, 1971, p. 38) The socioeconomic conditions of today's world force designers to create dark patterns when they may otherwise not. This means to truly solve dark patterns from a social level, one would think to address the underlying reasons why people would work these jobs in the first place. While this is certainly a good idea, we have seen in other industries that people will work jobs with potentially negative societal effects anyway.

Another approach that could address dark patterns is reframing how designers affect society. We have established that designers can actively harm society like in the case of Facebook, but designers are not held to any standard of ethics. Other jobs like doctors, where their practice could actively hurt someone, have an ethical code in the form of the Hippocratic Oath. If designers can also hurt people, why do designers not have their own oath? This is what Monteiro points out in his book *Ruined by Design*

where he writes, "Most professions worth their while, and capable of inflicting harm, have ethical codes of some sort. It's a sign of maturity and responsibility, and there's a price paid for not following it, which may include losing your license to practice … Doctors, lawyers, journalists, Omar from *The Wire*, even our design cousins the architects all have ethical codes they agree to follow" (Monteiro, 2019, p. 16). Considering this, Monteiro suggests that designers have their own oath, laying out a basic oath that can be added onto. The main aspects of the oath are the following (Monteiro, 2019, p. 19-23):

1. A designer is first and foremost a human being.
2. A designer is responsible for the work they put into the world
3. A designer values impact over form.
4. A designer owes the people who hire them not just their labor, but their counsel.
5. A designer welcomes criticism.
6. A designer strives to know their audience.
7. A designer does not believe in edge cases.
8. A designer is part of a professional community.
9. A designer welcomes a diverse and competitive field.
10. A designer takes time for self-reflection.

Monteiro stresses that this oath should evolve over time, pointing out that the Hippocratic Oath did not originally include the phrase "do no harm" (Monteiro, 2019, p.18). While this oath is not going to make designers stop designing dark patterns overnight, it is a step toward changing the narrative around design. If designers pressure each other to do better and hold each other accountable they can collectively push against shareholders demanding dark patterns, making it taboo to even ask to knowingly create dark patterns.

One more potential approach to regulating dark patterns through ethics is the field of conceptual design. Conceptual design is a broad term for more abstract forms of design, like speculative design, critical design, and adversarial design. These forms of design all address ethical and political problems in not only the design world but wider society (Dunne et al., 2013, p. 11). In Anthony Dunne and Fiona Raby's book *Speculative Everything*, they illustrate how conceptual design contributes to how the study of design evolves: "[Conceptual design's] separation from the marketplace creates a parallel design channel free from market pressures and available to explore ideas and issues. These could be new possibilities for design itself; new aesthetic possibilities for technology; social, cultural, and ethical implications for science and technology research; or large-scale social and political issues such as democracy, sustainability, and alternatives to our current model of capitalism" (Dunne et al., 2013, p. 12). Conceptual design influences designers to consider these ethical and societal problems when designing which could contribute to the culture around design shifting to a firm rejection of dark patterns that run afoul of what conceptual design espouses. However, currently conceptual design mostly exists in the academic space so until it is included in commercial UI/UX design, its impact will be limited (Gray et al., 2018, p. 2).

Conclusion

Dark patterns are in an interesting position as far as regulation is concerned. Many actors and regulators aim to address dark patterns both legally and ethically and while great strides are being made

every day, until concrete legislation and/or major shifts in the design process are made, dark patterns will continue to proliferate on platforms and intermediaries. I have primarily focused on how to address dark patterns in this analysis, but future investigations should look into how other stakeholders in the implementation of dark patterns can also influence their usage. Software engineers need to code the dark patterns and product managers pass the order along to include them so their ethical considerations should be examined as well. Hopefully, by the time another kid is poking around websites trying to modify their games, they will not have to deal with what I had to navigate when I was a kid.

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