# An Ethical Consideration of Manipulative User Experience Design: Determining User Understanding and Regulation

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**Aishwarya Pore**

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On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

Advisor

Pedro A. P. Francisco, Department of Engineering and Society

## Introduction

User experience (UX) design is a fundamental aspect of how people engage with different technological platforms and interfaces. As we enter a society where technology becomes increasingly a means of our daily lives, user experience needs to be evaluated from various perspectives (Allam et al., 2013). Human-Computer Interface (HCI), which is the study of designing systems to serve their users best, increasingly points us to explore the philosophy of technologies and the resulting impact it leaves on users (Fallman, 2011). The decisions made during the design process of a user experience design can largely impact the way in which users perceive the interface. In this paper, the designs that will be considered for the study are those that are persuasive and manipulative. However, it is important to distinguish how the two design principles are different since there is a very fine line between them when discussing the ethical concerns surrounding user experience design. Persuasive design can be considered ethical only if the user's ability to choose and make decisions independently is protected and the design is simply helping facilitate the user's decision-making (Craig). The opposite of this would be manipulative - if the design "limits the user's ability to make decisions or manipulates users into making decisions that benefit the designer or company rather than the user" (Craig). The use of manipulative design tactics can make the design unethical by certain standards.

In many user experience design interfaces, business goals are prioritized over following ethical design processes. In this way, users are taken advantage of as they are forced to behave or react in a certain way they did not initially intend on. A UX designer's main goal is to enable the user to easily and comfortably navigate through a platform, but because UX designers need to work in accordance to the goals and objectives of their superiors, who are focused on growth and numbers, designers implement design tactics which are known as "dark patterns" to meet those

metrics quickly and in the short-term. Dark patterns are deceptive user experience practice that takes advantage of the way users navigate and use an interface, and mislead them into doing something they never intended to. "Dark patterns are designed to mislead or trick users and essentially exploit human psychology" (Gray et al., 2018, p. 2). Due to our profit-driven society, UX designs use different design processes and methods to create dark patterns which lure the users in one way.

Protecting the users' ability to make choices for themselves is a critical aspect of ethics, but giving users autonomy, which can be defined as "the ability to use an interface in a way that aligns with personal preferences and priorities, can conflict with increasing key business metrics" (Kohler, 2022, no p.). After understanding this, the question then arises if user experience interfaces can be regulated not to utilize unethical design tactics. More specifically, if there are design processes and practices that would result in more effective and positive user experiences while maintaining business goals and objectives? In order to answer this question, it is essential to identify existing manipulative designs and discuss methods in which users can be given more autonomy in how they interact with interfaces.

## Methods

Case Studies Analysis and Policy Analysis methods are used to analyze the use of manipulative design tactics, the regulation or lack of it, and the subsequent impact that manipulative design leaves on users. The Case Studies Analysis will include analyzing the manner in which two large web and mobile applications, Facebook and Amazon, utilize manipulative design practices to shape their users' perceptions and decision-making processes.

The company goals and objectives and the designs are evaluated to determine what ethical boundaries the designers and company stakeholders set and how those boundaries impact their success. The Policy Analysis is conducted separately from the Case Study Analysis as policies and laws are still emerging and are in the early stages of being mandated. The analysis will be completed by gathering data on emerging proposals and recent laws and what they focus on for regulatory measures. The policy data is organized chronologically to provide context surrounding the regulation.

**Manipulative UX Design and Regulation**

Manipulative UX design uses psychology and an understanding of human behavior to influence decision-making. In theory, manipulative design is an extreme version of persuasive design. Such design is meant to help the user easily and efficiently navigate through an interface and help them achieve the goals they want to achieve when they utilize the interface. “Persuasive design principles can be a powerful tool for building meaningful products that help people make better decisions, catered towards them when used properly” (Brown, 2022). However, when these persuasive design tactics are used with malicious intent and become deceptive practices that use dark patterns to trick users and conform their decision-making ability, is when the manipulative design begins to impact the user. Manipulative user experience design aspects allow the designers or companies behind different products or platforms to have authority over the users’ abilities to make decisions for themselves. According to Northeastern University Professor Ari Ezra Waldman, “The power of design means that our choices do not always reflect our real personal preferences. At worst, online platforms manipulate us into keeping the data flowing, fueling an information-hungry business model” (Waldman, 2019, p. 107). Limitations

imposed by designs often time weaken the user's ability to make rational decisions for themselves. By citing multiple examples in the technology ecosystem, such as Facebook and LinkedIn, Waldman (2019) depicts how platforms are socially constructed and designed by people with implicit and explicit biases. He proves that users care about their autonomy. Still, because of the cognitive limitations used on different interfaces and platforms, they are unable to act effectively on those concerns and preferences. Tactics such as confirm shaming users into reacting a certain way, withholding complete visibility of the system status to confuse or trick users, unclarity in wording or labeling, unnecessary navigation, forced continuity/waiting, interruptions, and information overload are just some of the many ways malicious design can manipulate users (Conti & Sobiesk, 2010; Chesway, 2017). These design decisions driven by creating more profit and advancing company objectives produce issues for users and inhibit them from acting autonomously.

Since the difference between persuasion and manipulation in design is so ambiguous, when regulators and policymakers are bringing enforcement actions and setting rules, specific questions arise to distinguish between the lawful designs that encourage and allow users to follow a laid-out user experience and unlawful designs that coerce and manipulate users wrongfully (Slater, 2023). When policymakers enforce and propose laws, they must ensure they understand the design and identify if it weakens the user's intentional decision-making ability. Since there is a diverse range of design tactics and practices that qualify as manipulative design, it is a challenge to enforce regulations and there has not been a single way to analyze and bring clarity to the question (Slater, 2023). However, policymakers are focusing on factors such as the quality of a notice to the users, the compare and contrast of consent and denial click flows, the ease of cancellation, and the use of certain design features that are most clearly dark patterns.

**Case Studies**

Facebook, one of the largest social media platforms, is one of many web and mobile interfaces that uses dark patterns and manipulative decisions to make users share more data than they would like to. Although Facebook has paid a $5 billion fine for making "deceptive claims about consumers' ability to control the privacy of their personal data", the interface can still be found filled with different deceptive design tactics (Fair, 2019). Facebook utilizes tactics that oftentimes confuse the user because of unclear wording or complicated navigation. For instance, Facebook makes users go through a tedious, multi-step process to delete a post that has been shared and additionally, does not provide an option to delete several or all of a user's posts. Users have to click on each post individually and delete it through the lengthy process. Users also have to individually select every photo to remove tags from them if they do not want to be tagged on certain photos. After deleting or removing an item, Facebook will reload the page which makes the whole process so much longer and frustrating for the user (Jovanovski, 2018). Facebook also makes audience selection unclear to users, leading users to unknowingly post publicly more often than they realize. On top of this, a common way in which many websites use dark patterns, including Facebook, is to attempt to mislead users into providing cookie consent (Jovanovski, 2018). Facebook's notifications settings are unclear, and there is no way to decline or stop all notifications, instead, the notifications can be temporarily turned off but eventually will turn back on. This is one of the many ways that Facebook employs dark patterns and ensures that users are always engaging and logging on to the application.

Another prime example of a company that uses persuasive patterns is Amazon. Amazon also employs dark patterns for various reasons in their mobile and web interfaces. One specific instance of this can be seen in Amazon's efforts to retain its Amazon Prime memberships.

Through Amazon's use of unclear labeling, forcing the user to go through multiple pages, sidetracking the user, withholding vital information, and confirm-shaming the user, not only is it a lengthy and confusing process to cancel Prime memberships but it undermines the user's resolve to cancel it altogether (Rizzi, 2022). This combination of dark patterns is known as a 'roach motel' because as easy as it is to get in, the more impossible it is to get out. Due to the complicated process, users who were unable to cancel their membership are now filing a class action lawsuit against Amazon (Rizzi, 2022). Amazon's purchase experience is also one filled with manipulative UX tactics such as default selection, mislabeling, confirm-shaming, and multiple clicking. Amazon has not been sued yet, but due to emerging policies and regulations in manipulative design practices, has started to make slight changes to certain interfaces warily.

These are just two examples of the many companies that use manipulative UX design and have malicious intent behind them that do not value users or their concerns. Due to the capitalist nature of society today, designers and corporations are able to understand how to exploit users based on their pre-existing cognitive biases. Designers know that users care about their autonomy and values but also that they have cognitive limitations that designers are able to take advantage of as users are unable to act effectively on those concerns and preferences. The emphasis on creating ever-more-effective interfaces to manipulate and exploit users to get them to behave and react in a certain way, which usually favors the product owners, continues to grow, resulting in consumers becoming increasingly vulnerable to powerlessness. As such, progress towards creating better regulation of manipulative UX design tactics must occur to bring more power and autonomy to the users. In combination with well-informed and morally just designers, legislation that forces businesses and companies to abide by will shape the development and design process for user experience interfaces.

**Policy Analysis**

There have been state privacy and federal draft bills in recent years that seek to limit the use of manipulative design online in the US. The Deceptive Experiences To Online Users Reduction Act (DETOUR) Act was first introduced in Congress in 2018 by Senators Warner (D-VA) and Fischer (R-NE) but was never passed into law (Slater, 2023). The DETOUR Act was reintroduced in 2021 and it would "forbid websites, platforms, and services from acting "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" (Slater, 2023). Although it does not use the term "dark patterns" other expansions on the act have explicitly used the term and laid out the defined elements of what is included in the "dark patterns" (Slater, 2023). Another federal privacy bill was introduced in 2022 called The American Data Privacy and Protection Act (ADPPA), which is an expansion of the DETOUR Act and would cover a more comprehensive scope.

State bills have been more narrowly focused when compared to federal bills as certain vulnerable or marginalized populations, including young people and people of color, are to be protected. The California Age Appropriate Design Code (CA AADC) which was enacted on Sept. 15, 2022, and takes effect July 1, 2024, aims to prohibit designs that target young people with dark patterns and will coerce them to share personal information or act in a way that a "business knows or has reason to know, is materially detrimental to" a child's physical or mental health or "well-being" (Slater, 2023). However, that terminology can be interpreted by the business. Advocates for young people and privacy aim to protect the rights of all marginalized and vulnerable people including children, the elderly, and non-English speakers who are the most vulnerable to manipulative design practices. Having stronger worded protections in the

legislation and ensuring that there is transparency and a clear understanding of the policies and regulations would allow specific groups to have better protection.

Although federal and state legislative bills and regulations are being introduced and enacted, there are aspects to be wary of such as creating extra work and compliance issues for businesses and companies when there might not be a benefit for the users, or if the restrictions on manipulative design tactics are too inclusive and overarching and may restrict design practices that are favorable for users (Slater, 2023). There must be a balance for managing a certain level of constraining user autonomy that is beneficial for the user as well as manageable and productive for the business (Slater, 2023). In addition, there remains an ambiguity in gauging if a design practice is lawful or unlawful and what could qualify under enforcement. While robust regulation is necessary to combat the impacts of manipulative and deceptive designs, there must be a clearer and developed framework to assess designs, and businesses and businesses involved with user experience interfaces must continue to understand and attend to legal developments surrounding this issue.

**STS Frameworks**

The STS frameworks used to support this analysis are the Actor-Network Theory and Ethics of Care. Actor-network theory explains how all of the involved actors are considered equal and their values are equally important. The actors that are relevant for this study are the users, UX designers, the design/interface, company stakeholders, business metrics, user data, lawmakers/regulators/policymakers, advocates for marginalized and vulnerable users, and laws/regulations/policies. Understanding the different values and biases that might exist of the

human actors based on how they react to manipulatively designed interfaces based on factors such as age, gender, skill level, native language, and socio-economic status, helps further analyze this issue in a socio-technical frame. In this scenario, the users and their values are perceived to be on the same level as the company stakeholders, but in reality, the values and ethical considerations of users are not seemingly important as meeting business metrics, thus the company stakeholders and designers can input their values more effectively than the users in the network. In the Case Studies Analysis that was done earlier, it was seen that companies like Facebook and Amazon use design tactics that benefit the company and help it in achieving its business metrics by actively ensuring to retain users in a paid membership or trick them into sharing personal information without them knowing. Actively working to ensure the protection of users and their autonomy would produce better equality in this actor-network theory. To bring balance in the network, the recent introduction of law and policymakers and the enactment of laws and regulations is bringing the change. As mentioned before in the Policy Analysis section, for the policies that are being introduced and enacted, there must be an understanding of what manipulative design practices are impacting the users and altering their autonomous decision-making abilities. The policies should not be overarching and too broad that the beneficial aspects of the design are restricted, but they should also be of use and help businesses meet their objectives and business goals.

The second STS framework that can be used in this analysis is the Ethics of Care framework. User Experience designers that understand that the designs large companies are expecting from them are working against the users' autonomy and diminishing their power should be better informed and intentionally designed. Since users have little say in the design process, designers themselves need to work to protect users and not rely on exploiting human

psychology to meet company or brand objectives. For persuasive and manipulative UX design, designers have to understand the cognitive biases and the psychology of the human brain to effectively get through to the user. If they are able to understand that so well, they should be able to understand what they are doing is immoral and unethical. Through working in the UX field, it should be clearer to designers where the line is between persuasive design and manipulative or deceptive design. By being better informed and feeling morally obligated to not trick users or take advantage of certain groups of users based on their age, gender, skill level, native language, and socio-economic status and choosing to ethically design in a way that helps the user and the company, designers would bring change to the field.

## Conclusion

In order to diminish the imbalance between users and the designs and interfaces they are engaging in, there has to be better control of the designs and products themselves. Companies must abide by certain regulations to ensure that the user has authority over the impact a design may have, however, Professional UX Designer Luis Castro (2020) argues in his article that designers and users need to actively pay attention to potential manipulative practices in the UX field. By "elevat[ing] the conversation, start early before bad practices become normalized or the reputation of UX [...] become[s] tarnished by bad actors" (Castro, 2020, p. 3), the user design experience can allocate more autonomy and power to the user. Users must also educate themselves on how to overcome and develop countermeasure strategies to advocate for themselves. Although this should occur undoubtedly, it is also not solely up to users to be able to identify and act on their own rather than succumbing to the design's intentions. Companies will continue to use the process and mechanisms that exploit users because they are effective. Until

lawmakers are ready to hear and take action to bring balance between companies and users, things will not change. Incorporating increased regulation and specific guidelines for companies and designers to abide by would address the imbalance between society and technology that must be addressed to protect users' autonomy. Designing interfaces that help guide the user through the platform and help them achieve their sought out goals as well as maintaining some level of control over the user so that the business can meet their own objectives and metrics is a tricky balance, but one that needs to be found.

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