

Who is Responsible for the Prolonged Use of Dark Patterns?

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With the rapid attention drawn towards the importance of trustable digital user experience and user interface (UI/ UX), there has been intensifying interest in the HCI academic research community towards interpreting the current ethical attitude in the commonly encountered designs of today. The prosaic research topics build upon practical advancements of concepts like value-sensitive design (VSD), practitioner perspective on ethics in practice, and the user/ audience opinion on what they see while working on their day-to-day tasks. However, one of the most prominent predicaments that the authors feel remain unconcluded is who is to be held accountable for the final ethical awareness among the mass public. Hence, to work around the blurring lines of culpability, the authors try to unravel the extent to which different people involved in the entire system are accountable for each reaction invoked throughout the journey, right from ideation to the end-user experience.

Keywords: WUI/UX, dark patterns, responsibility, practitioner perspective, user perspective.

1 Introduction

The term 'dark patterns' is as ambiguous as it gets. Coined by Brignull in 2010, dark patterns were initially referred to as 'tricks' used to trick the users into doing what they do not intend to [10], and the definition has just evolved and changed over following research work. The obscurity and lack of concrete conceptual foundations that conclude a set interpretation, for what exactly is a dark pattern and what example is a dark pattern, has been a reason for community affliction [18]. It further leads to the fuzzy development of consequent problems and questions.

A non-exhaustive list of previous works hints towards the awareness among the users and their discussions in response to being exposed to 'manipulative malpractices' while using their everyday go-to applications, both web and mobile [19, 1, 21, 22, 5, 4]. Another set of recognized works portrays the disarray felt by practitioners with varying experience ranges with what their sense of responsibility holds concerning the leverages of their designs, for they are answerable to their workplace hierarchy with administration and marketing in the picture, alongside their sense of self due to personal ethical standpoints [6, 11, 14, 8, 12, 3]. This conflicting opinionated outlook leaves the experience a hazy insight into what is responsible yet corporately feasible [15, 16, 7, 17]. The authors aim to question the blurring lines of responsibility and accountability in terms of the prolonged use of dark patterns with this paper.

The forthcoming section, section 2, walks through the literature review that entailed this research process. It is followed by a section discussing dark patterns, their attributes, and classifications, section 3. The aim of section 4 is to articulate the perspectives of both the practitioners and the users. Then section 5 further touches upon challenges faced by practitioners and users, respectively and brings forth possible solutions, with a conclusion in section 6, followed by references in section 7.

2 Literature Review

2.1 End-User Accounts of Dark Patterns as Felt Manipulation, Gray, et al., 2021: This research paper analyses the accounts of manipulation felt by the end-user while operating modern-day daily use digital products. It helps attain another insight into 'dark patterns,' which facilitates further work. It lists three upcoming 'distinct' trends that seem to have converged recently: deceptive practices in the retail industry, repetitive nudging the user to irritate him into certain decisions, and growth hacking [1].

2.2 Dark Design Patterns: An End-User Perspective, Maximilian Maier and Rikard Harr, 2020: It aims at creating awareness about dark patterns, specifically by exploring the user perspective. It concludes with the fear of missing out. It explains how this conception gets exploited by the companies and their designers. It showcases how in the eyes of the user, the practitioners and business lords are at fault for the said manipulation; however, there is a partial belief that people themselves are partly responsible for their 'fate' [2].

2.3 Dimensions of UX Practice that Shape Ethical Awareness, Chivukula, et al., 2020: This research focuses on the practitioner perspective of things and embosses on how dimensions of design practices affect the ethical standpoints and action. It concludes that despite rapid awareness, there exist gaps in the moral guidance regarding the same. It aims at providing the readers with a bird's eye view of the design complexities and tensions faced by a practitioner while converging their thought process into their UX practice [3].

2.4 What Kind of Work Do "Asshole Designers" Create? Describing Properties of Ethical Concern on Reddit, Gray, et al., 2020: This is an attempt to understand the user better. Here, the authors have analyzed a seemingly popular subreddit with the tagline, "because nothing

comes before profit, especially not the consumer." The subreddit aims at characterizing the properties of an 'asshole design' while distinguishing it from value-centered design and 'bad design,' also analyzing the capacity of an online community [4].

2.5 "Nothing Comes Before Profit": Asshole Design In the Wild, Chivukula, et al., 2019: It produces exceedingly settling evidence of how online conversations on social media indicate an intricate level of interest in discussing ethics and its complexities. The posts mainly focus on expressing discomfort and frustration faced by the users while using the reported services [5].

2.6 Ethical Mediation in UX Practice, Colin M. Gray and Shruthi Sai Chivukula, 2019: This research project aims to observe the working techniques of practitioners. It describes factors of ethical 'mediation,' including organizational norms and personal views. The authors use the theory of activity, a framework emanating from the socio-cultural tradition in Russian psychology, to achieve their research goals here. It documents the cases of the emergence and suppression of ethical decision-making in practice with accounts of interactions and positionality of the designer through the lens of mediation [6].

2.7 Cognitive Biases, Dark Patterns, and the "Privacy Paradox," Ari Ezra Waldman, 2019: Providing a contrast between cognitive biases and dark patterns, Waldman weighs the 'weaponization' of design of online environments. The paper aims to measure the harm to consumers and their privacy when designers implement rational choice models into their designs. The author's notion of practitioner duty towards the users encompasses three primary aspects: duties of care, confidentiality, and loyalty, respectively [7].

2.8 #darkpatterns: UX Practitioner Conversations About Ethical Design, Fansher, et al., 2018: Unlike the common trend of studying the user conversations on online forums, this paper targets the seemingly popular hashtag '#darkpatterns' on Twitter. It attempts to quantify the awareness about ethics in design and the degree of understanding about the challenges. It categorizes the work in the picture: identification of dark patterns and those guilty of engaging in them, generic conversations, and confusion between 'dark patterns' and 'bad design' [8].

2.9 The Dark (Patterns) Side of UX Design, Gray, et al., 2018: This research rigorously explores the ethical phenomenon of 'dark patterns' associated with UX. The aim is to redefine the conceptualization and classification of dark patterns in a more precise format. Gray et al. describe dark patterns as a practitioner-created construct where human-centered values are in the service of deceptive or malicious aims. They compare the phenomenon with other prevalent designing methods in the industry from a research perspective. They then conclude with an explicit five-class categorization from the original proposal by Brignull [10]. The five derived 'dark patterns strategies' include nagging, obstruction, sneaking, interface interference, and forced action [9].

2.10 Dark Patterns, Harry Brignull, 2010: Being the first person to coin the term, practitioner-turned-researcher, Brignull defined dark patterns as 'tricks used to make users do things that they do not intend to.' The author then classified dark patterns into several types: Trick Questions, Sneak into Basket, Roach Motel, Privacy Zuckering, Price Comparison Prevention, Misdirection, Hidden Costs, Bait and Switch, Confirmshaming, Disguised Ads, Forced Continuity, and Friend Spam [10].

3 Dark Patterns: An Introduction

The belief of every designer plays a key role, not in the totality of the whole design, but at least a significant part of it cemented by Stolterman and Nelson in their work in 2000 [11] has given the required reason and backing for the formulation of different design techniques with the intent of

catering to the user better. Some of the more established methodologies might include Value-Sensitive Design (VSD), Critical and Reflective Design, and Persuasive Design, to name a few.

Value-Sensitive Design, as the name, puts a portion of its answerable weight on values, i.e. ethics and morals, at peaking different points throughout the design process in a conscientious and detailed way. However, setting up such rules to bind and guide an entire product journey is a cohesive task [23, 24]. Persuasive design claims design to be an act of persuasion, as the designer wishes to create an 'intentional' difference in the world through his work [25,26,31].

Popularly known as the father of the concept of 'dark patterns,' Harry Brignull referred to them as "tricks used in websites and applications that make you do things that you did not mean to." As a practitioner-turned-researcher, he was one of the first few people to identify these ambiguous designers' attempts to deliver better to the users and the company management. He classified this concept into twelve categories as in Table 1. Over time, further research has come up with a varying degree of changes to the concept and its understanding. One of the ground-breaking researches by Gray et al. [9] further reshapes the very specific classification by Brignull to a more generic and widely acceptable version of five different categories:

- Nagging
- Obstruction
- Sneaking
- Interface Interference
- Forced Action

Table 1. Types of Dark Patterns by Brignull

Types of Dark Patterns	Description
Trick Questions	Many times in questionnaires, one is duped into giving information that they did not intend to share in the first place. At first sight, the questions seem to inquire about one thing, and on deeper perusal, it is disparate.
Roach Motel	Situations that are accessible but hard to escape from.
Hidden Costs	At the end of most online transactions, the buyer finds themselves being charged for things that they were not previously informed about while browsing and selecting items to be bought.
Friend Spam	Several websites ask for your email or social media permissions under the pretense that it will be used for a desirable outcome but then spams all your contacts in a message that claims to be from you.
Privacy Zuckering	Companies make products such that you can facily publicly overshare personal information unintentionally.
Sneak into Basket	While online shopping, there are many instances where, at some point, while one is browsing, the website adds some extra items in your basket without your notice.
Misdirection	The product is designed in such a way that some parts of it draw more attention to avoid one from paying attention to other details.
Bait and Switch	You set out to do one thing, but a different, undesirable one happens instead.
Confirm shaming	Many websites use a watered-down version of gaslighting to guilt users into compliance.
Disguised Ads	Many ads are disguised as different types of content to get one to click on them.
Forced Continuity	When your free trial with a service comes to an end and your credit card silently starts getting charged without any warning. In some cases, this is made even worse by making it difficult to cancel the

		membership.
Price Comparison		The seller tries to avoid the user from making an informed decision
Prevention		by not letting them compare the prices of the item to other items.

4 Perspectives: Two Sides of a Coin

While academia is adamant about making design responsibilities visible in place of an external guarantor [11], the lines of holding one particular party involved in this transaction responsible for the mal-intent and manoeuvring the other's traction remain hazy. Both partakers are well aware of the existence and ill-extent of dark patterns, yet none seems to claim responsibility for their continuation. Neither are the designers willing to take complete responsibility for any behavioural changes brought about due to their design decisions, nor are the consumers confident enough in the power they hold over the shareholders of a service provider.

4.1 Practitioners' Perspective

For as long as the societal constructs can remember, designers, like most other professions, have been shying away from taking complete responsibility for what they create. However, as the world progresses and more people are getting aware of the impacts design makes on their own lives, designers can no longer hide behind the 'needs' of the consumer. They have to stake claims to the 'shapers' and 'designers' of today while consciously attempting to move from a user-centred creative to a society-centered one. Designers have begun to realize that they are not just designing a product but defining the behavioral impact of a daily-use commodity [17]. It is, thus, their obligation to incorporate relevant professionals to help them work on, not around these implications.

Different career accomplishments, different life expectations, and years of experience have a varying degree of impact on designers of all walks of life. Student designers do not let their heightened sense of empathy and human sensitivity affect their design decisions. Research proves that in most cases where user values are acknowledged, according to current trends, they are then exploited, only to cajole users into what the service stakeholders desire [12]. Younger designers primarily focus on grounding stable footing in their careers, following a contractual approach to design, ultimately ignoring the ethical aspects in exchange for the money and name. Such designers channel most of their energy on creating what is asked of them while keeping their clients out of legal issues, a complete one-eighty of what is ideal. As the young ones try to dodge any uncalled bullets, the senior designers try to help them sincerely evaluate the impact their design decisions make on the users. However, they find their hands tied by the corporate system in practicality far from the ideal world. Product managers believe their job requirement is to design and deliver a product that benefits their company in terms of revenue only. The product gets judged on its usability and efficiency, not user-friendliness [6].

As the personal morales of designers suffer because of their answerability to their higher-ups and managers, there has been an increase in the convention of practitioners users heading towards social media [8] as a tool to create awareness by sharing exemplars, holding them accountable, and by simply promoting conversation about ethical design practices.

Ill-intended design is not just a play of ignoramus agents at the wrong time; it is a by-product of a broken hierarchical system with higher turnovers as the apex priority. Even if the service has ethical values, its presence does not safeguard the goods against 'dark' approaches [4].

4.2 Users' Perspective

Alongside general awareness, even the practitioner perspective from the previous subsection reveals that most designers believe that the final calls on most of the 'dark pattern' design decisions would not be the same, only if they were given more say in 'their' products. The degree to which they feel subdued in the organizational hierarchy is beyond bounds, stalling the growth and ethical mediation for the services. Users, however, beyond the corporate bonds, expect the designers and developers to balance the monetary desires put forth by their clients and product stakeholders in a way that is not an adversary to the trust they put in them. Users have been feeling more like a money-making commodity than 'live' humans, but their 'forgotten' humanity also gives them a hard time pinning the full lengths of the blame for the manipulations onto the creatives[1]. The prolonged exposure that the society as a whole has felt towards such design decisions has made them used to them, considering how they must 'live with it.' People start feeling psychological and societal pulls of not standing up against procedures that have become the norm now, letting the service-providers alter their basic human elements like time, resources, cognitive load, routine, social acceptance, and so much more while altering their real self [2, 5]. A lot of their fight for authentic use of their data is faltering as they start accepting their 'fates.'

5 Challenges and Proposed Solutions

Taking responsibility is not only challenging but extremely dangerous. Despite this, these attempts at shaking off the obligation to make things right for society as a whole are unacceptable. Practitioners have their own set of drawbacks as most of them are not in a place to have a say in their companies and are seen as mere designers who need not have a say in business-related decisions. Even user research is usually done, without the designers in the loop. It forces users to contemplate not only the shortage of access to users but also a company culture that does not value that kind of access [14]. Many new designers do not want to take the risk of going against their companies to secure their jobs. "People care about their privacy but They are, however, dissuaded from acting effectively on those preferences by cognitive limitations leveraged by the digital platforms themselves"[7].

Users seem to have mixed feelings about whom to see as the guilty party. Even though online conversations indicate that users are ready to empathize with designers, they are still not quite accepting of the intent(i.e. users are money-making cows) of the company. Users are overwhelmed by the feeling of vulnerability as even though they are consciously aware of the manipulations that are taking place, they cannot seem to avoid it[2]. Even if a user makes conscious efforts to nitpick such patterns, they can recognize only basic patterns and not the more complex dark patterns due to a lack of information. Some of them also see it as their fault for being ignorant or uninformed on this topic, although raising awareness did not play a crucial role in helping them avoid these malpractices[2]. Senior Designers at companies should start saying no to the money-minded decisions of the stakeholders to make their work user-friendly. They should also educate junior designers not to sideline their ethics while designing for the company. HCI educators and academicians should focus on nurturing the ethical mindset in future designers from the very beginning.

Even with users, although raising awareness is not enough to help them screen from the effect of these patterns[19], it is still the first step while looking for fixes against such practices. There have been many episodes where the users have tried to fight back against the dreaded money-making attitude of the companies like the Facebook Cambridge Analytica Case[13]. The legal world is getting more open towards cybercrimes and malpractices. New laws are continuously being established to protect user privacy.

People need to be informed of their rights and need to be educated on dark patterns. Users should actively publish cases on social media if and when they come across such use of patterns to warn other users and make them cognizant.

6 Conclusion

In this paper, the authors attempt at delivering a precis for the current trends towards the study of malicious content in Human-Computer Interaction in terms of user exploitation, alongside a proposal of probable solutions. Sought-after in academia, the term 'dark patterns' originates from the realms of UX practitioners. Extensive track-back work in tracing the history of this field has consistently shed light on how the day-to-day work and design decisions pull at the practitioners' conscience where they have to concede in accordance to client demands and organizational hierarchy. Similarly, how the large business sharks are known to impede user needs, privacy, and everything in between to meet mere corporate goals and revenue turnovers. There has been a considerable increase in the awareness and reactive turmoil expressed by the users online on various forums regarding felt manipulation. Users have talked about feeling misled and have also called out companies and services on tricking them into making decisions that they would not have indulged in their free will. Yet, the use of 'dark patterns' in daily applications peaks high as ever. This imbalance and the lack of felt integrity from both parties has been the cause of ever-rising overlapping turbulence in academia regarding the responsibility of hostile intent. This paper aims at becoming a stepping stone for future works on researching and implementing the proposed research solutions to aid practitioners practically in subsiding the feeling of guilt in more ethically acceptable ways of being while meeting the needs of the users accurately. Moreover, it attempts to draw attention to the vitality of user opinion and feedback on services meant to cater to their needs.

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