The Dilemma of Choice: How Design Shapes Consumer Decisions

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Abstract

Design: What is it about? At its core, it is meant to simplify flows, reduce friction, create experiences that feel effortless and ultimately make our lives easier. But somewhere along the way, design stopped being about usability. It became a smart and meticulously crafted system that shapes, guides and influences user choices, a strategy built to keep users hooked to the service. While that may still align with what good design strives to do, it is equally important to recognise the moment it blurs the line and turns manipulative. A manipulative design takes advantage of its users through subtle trickery, hidden beneath the illusion of a seamless experience.

This paper explores dark patterns in UI and UX design, which are deceptive interface choices that manipulate users into performing actions that benefit businesses more than individuals. Every button, colour and word is placed with intent. From Netflix's hidden cancellation options to Amazon's auto-renewals and LinkedIn's contact traps, every element in a design is calculated to serve a business goal.

Through secondary qualitative and quantitative research, this study examines how dark patterns influence consumer decisions, increase engagement and retention and at the same time reduce user autonomy.

Observations from the reviewed literature and interface analyses suggest that although these tactics may deliver short-term business gains, they also risk undermining long-term user trust and brand credibility.
The paper encourages a move towards ethical design that prioritises transparency, empathy and accountability, inviting designers and organisations to reconsider whether their work ultimately serves business objectives or the people who rely on these systems.

Keywords: Dark Patterns, UI/UX Design, Consumer Decision-Making, Ethical Design, Behavioural Manipulation, Business Strategy, Persuasive Design, Consumer Trust

Introduction

It was during a design lecture that our professor told us, "A good design is one that helps users complete their task with the least frustration and effort." Everyone nodded along, but I started to wonder that if design is truly about reducing friction for users, then why is it that the moment you try to step away from a service, everything suddenly becomes harder to find?

Many users like me have felt the frustration first-hand, such as struggling to cancel an Adobe subscription hidden in small text, finding Quick Heal trying to install add-ons by forcing you to interact with the consent box or tapping endlessly on apps where "Skip" or "Cancel" options are difficult to locate. These are not interfacing flaws or 'bad design'. They are design choices, or to use a more fitting term, they are business tactics.

In today's age of hyper-commercialization, design has evolved into a deliberate strategy to attract, retain and influence users under the guise of convenience and usability. Every button is created with intention to shape their behavior to benefit the company.
This is where we are introduced to the concept of dark patterns. A dark pattern is a design feature that subtly encourages users to perform a specific action. Just like good UX, most dark patterns are invisible to users. But unlike good UX, they serve the company's interests rather than the users.

The term dark patterns were coined in 2010 by UK-based UX designer Harry Brignull, who described them as "a user interface that has been carefully crafted to trick users into doing things, such as buying insurance with their purchase or signing up for recurring bills" [1]. These designs exploit the way people naturally navigate interfaces and can lead users to pay more for a service, subscribe to unwanted emails or even share personal data by agreeing to unclear terms and conditions. Upon realization users either blame themselves for not paying attention or do not like the fact that they were misled.

Dark patterns twist and use Jacob's Law, which states that users spend most of their time on other sites and therefore expect new ones to function similarly. Designers use this to their advantage, creating deceptive flows that feel familiar and trustworthy. At times, the line between persuasion and deception blurs.

These patterns can also be understood by studying behavioural psychology. Companies understand that all of us instinctively follow the path of least resistance, so they ensure that path aligns with their profit.

The glowing "Accept All" button catches our eyes, while the "Reject" option hides in dull, small text.

Economically, dark patterns deliver short-term engagement, but ethically, they contradict the foundation of user-centred design by playing with our trust. This research paper explores how dark patterns in UI/UX design influence consumer decisions and ultimately affect business performance.

Methodology

This study used a qualitative research design. The purpose of this paper was to understand how dark patterns work in real interfaces and how they influence user behaviour. A qualitative method was appropriate because the study focused on observations, meanings and patterns rather than numbers or experiments.

The population for this study included digital platforms that are widely used in everyday life. From this population, a small number of platforms were selected because they have high user engagement and are commonly mentioned in UX research for their use of persuasive design. The sampling technique used was purposive sampling. This means the researcher selected platforms that clearly displayed dark patterns in their interface. This approach helped the study focus on platforms that could provide useful and relevant information for understanding the topic.

Data collection was based on secondary sources. These sources included academic research papers, UX articles, biogs, design case studies and online discussions of interface behavior. The platforms were also observed directly. This involved looking at their subscription processes, cancellation steps and in-app prompts. During these observations, attention was given to elements such as colours, text, buttons, layout and the order in which options appeared. These elements helped identify the presence of dark patterns.

The main research tool used in this study was the taxonomy of dark patterns created by Harry Brignull in 2010. This taxonomy lists and explains different types of dark patterns. Every example found in the interfaces was compared with this taxonomy to see which type it matched. This provided a clear structure for understanding the findings.

The collected data were examined using thematic analysis. This means that I looked for repeated themes in the observed dark patterns. These themes helped show how different platforms used similar strategies even though they served different audiences and purposes. The analysis also included a study of the psychological ideas behind each pattern, such as loss aversion, the wish to follow the easiest path and the influence of social proof.

Ethical guidelines were considered throughout the study. All information was taken from public sources. This methodology provided a systematic way to study dark patterns. It helped understand how companies design interfaces that influence decisions and how these patterns affect users and business outcomes.

Literature Review

Design is a domain driven by empathy that is aimed at making technology intuitive. Interfaces are made with the central goal of helping users. Yet, as we are observing now, most successful businesses design experiences that could mold how users think. As discussed above, at the centre of this lie dark patterns.

Building on Brignull's definition, Grey et al. (2018, pp.1) argue that dark patterns are not design oversights but calculated business decisions that sit within marketing-driven systems [4].

Empirical studies reveal how widespread these patterns have become. Mathur et al. (2019, pp.2) reviewed 11,000 e-commerce websites and found that 11% contained at least one dark pattern, documenting over 1,800 examples [5]. They came up with 7 broad categories: Sneaking, Urgency, Misdirection, Social Proof, Scarcity, Obstruction and Forced Action, each of which is linked to a specific cognitive bias.

Di Geronimo et al. (2020, pp.10), analysed 240 mobile applications, found that 95% included at least one dark pattern, averaging seven per app [6]. Their study of 584 users showed that people could rarely recognise a dark pattern unless explicitly informed, naming this phenomenon DP-blindness. Gunawan et al. (2021, pp.1) further showed that mobile interfaces contain higher levels of dark patterns due to smaller screens [7].

A 2022 paper in Business and Information Systems Engineering (pp.2) describes dark patterns as "the monetisation of psychological weakness; suggesting that user attention and trust have become commercial assets [10]. Collectively, this research shows that dark patterns have now become normalised business strategies as compared to exploitative tricks.

Types of Dark Patterns

(Based on classifications by Brignull [8], Mathur et al. [5], Grey et al. [4], Gunawan et al. [7] and Think Design's analysis [16].) Some of the most common dark patterns include:

• Forced Continuity - When free trials silently turn into paid subscriptions unless cancelled in time, commonly seen on streaming platforms. (Figure 1)
• Roach Motel - Users can sign up with ease but face multiple steps, hidden menus or long navigation paths to unsubscribe, as seen in Amazon Prime's cancellation flow. (Figure 2)
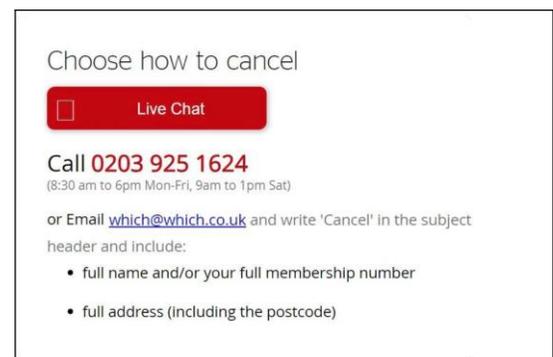

Figure 1

Figure 2

Image source https://verycreatives.com/blog/dark-patterns-in-ui-design

Image source https://verycreatives.com/blog/dark-patterns- in-ui-design

• Deliberate Misdirection - Designers use colour, contrast, layout and button hierarchy to emphasize profitable actions while hiding neutral or user-friendly alternatives. (Figure 3 & Figure 4)
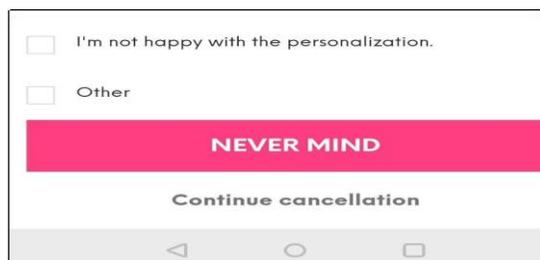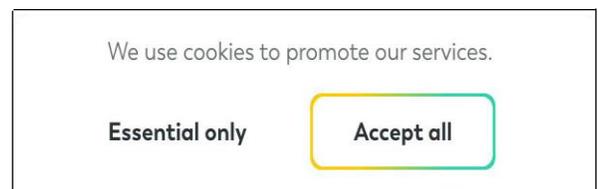

Figure 3

Figure 4

Figure3: Image Source https://seosydney.com/seo-optimisation/how-dark-patterns-damage-your-search-index-ranking/
Figure4: Image Source https://verycreatives.com/blog/dark-patterns-in-ui-design

• Bait and Switch - A bait-and-switch dark pattern is when a platform promises one thing upfront but delivers something else to manipulate user behaviour. (Figure 5)
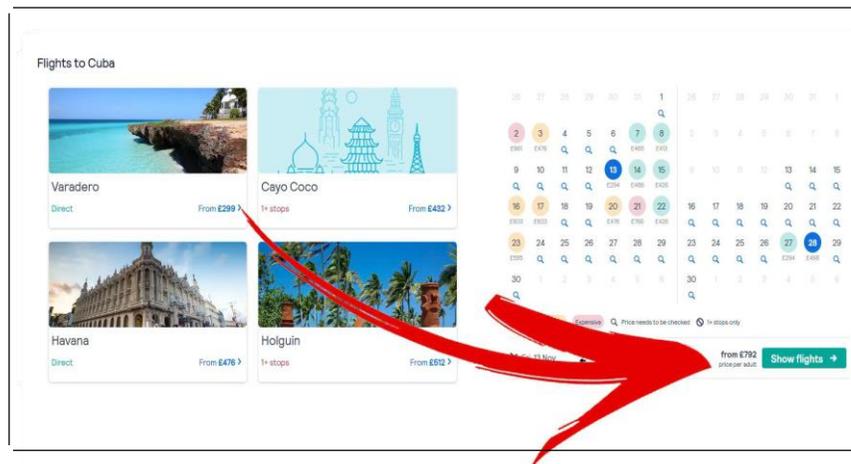

Journal homepage: www.fishtaxa.com

Figure 5
Image Source https://www.linkedin.com/pulse/dark-patterns-design-5-bait-switch-adrian-ng-gonzalez/

• Hidden Costs - Unexpected fees like delivery charges, processing fees or service taxes appear only at the final checkout step. (Figure 6, part i, ii & iii)
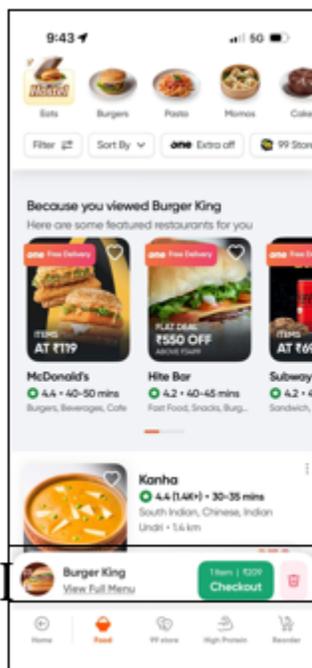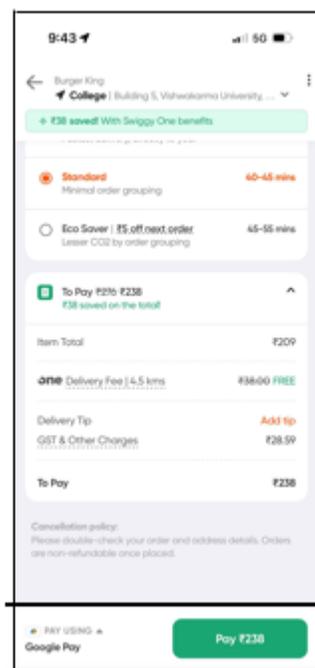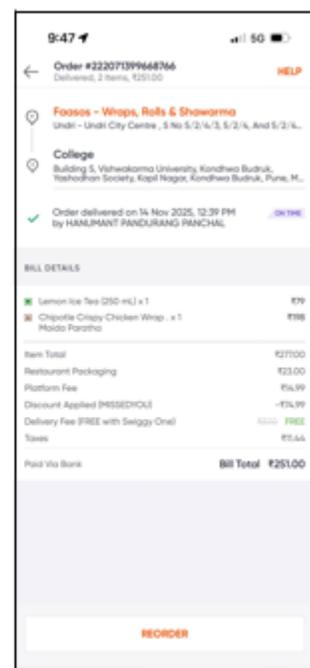

| Figure 6(i) | Figure 6(ii) | Figure 6(iii) |

Image Source: https://www.swiggy.com/

• Disguised Adverts - Advertisements are styled to resemble navigation buttons or interface components, prompting users to click unknowingly. (Figure 7)
• Privacy Zuckering - Users are subtly coerced into sharing more personal data than intended through pre-ticked checkboxes, unclear wording or confusing consent flows. (Figure 8)

Journal homepage: www.fishtaxa.com

Figure 7

Figure 8

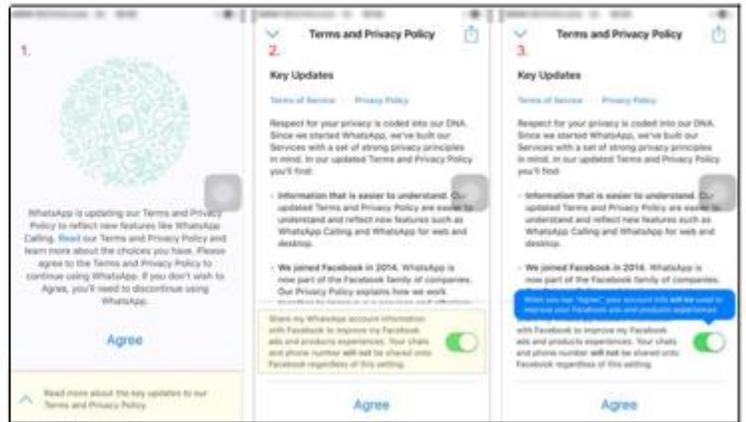Figure7: Image Source https://www.deceptive.design/types/disguised-ads

Figure8: Image Source https://medium.com/@mohityadav0493/privacy-zuckering-deceiving-your-privacy-by-design-d41b6263b564

• Sneak into Basket - Additional items are automatically added to the shopping cart through hidden opt-out tick boxes or misleading consent prompts. (Figure 9)

• Nagging and Gamified Guilt - Repetitive notifications, reminders, streak warnings or endless scroll mechanisms pressure users into returning, as seen in Duolingo or Instagram. (Figure 10 & Figure 11)

• Confirm shaming - A guilt-based persuasive technique where declining an option requires selecting demeaning statements. For example, a button labelled "No thanks, I don't care about my health" makes us feel embarrassed. (Figure 12)
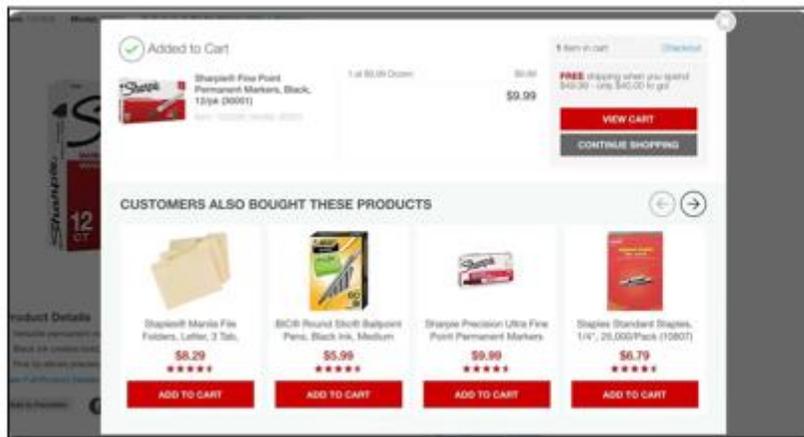

Figure 9

Figure 10

Figure 9 Image Source https://www.interaction-design.org/literature/topics/sneaking-into-basket? srsltid=AfmBOoojOwq2dJTo9-eYsTA-tfBUUcYyjgl6TbMjlHmS9YjcARVfHnS1
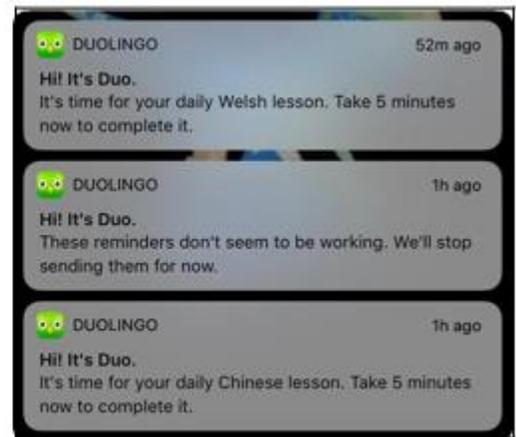
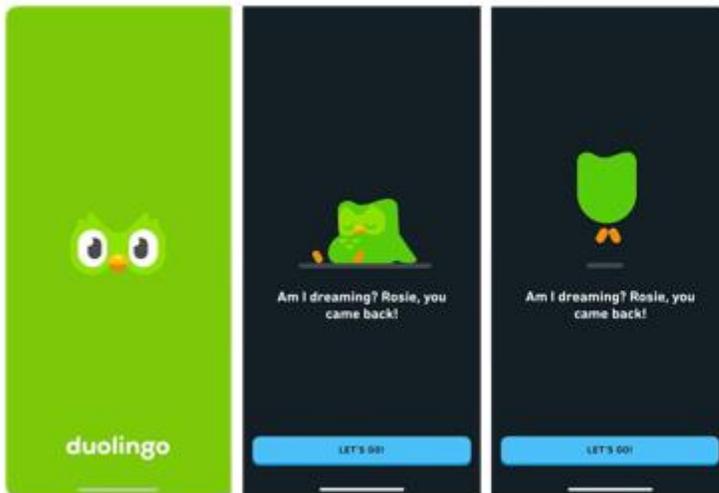Figure 10: Image Source https://medium.com/@adithyahnair123/duolingo-its-cheeky-notification-marketing-9589a162515d
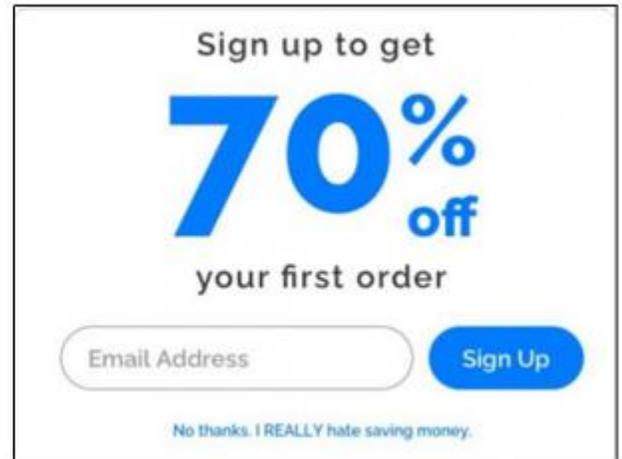
Journal homepage: www.fishtaxa.com

| Figure11 | Figure12 |

Figure 11: Image Source https://uxdesign.cc/duolingos-6-step-reactivation-experience-9ad65f04a569
Figure 12: Image Source https://blog.mobiversal.com/dark-patterns-or-how-ux-exploits-the-user-confirmshaming.html

Good UX vs Dark Patterns
Though good UX and dark patterns may look similar on the surface, their purpose differs sharply.
Good UX helps users complete their goals smoothly by offering clarity and control. For example, Google Maps provides navigation cues to help users reach destinations without confusion. These designs build trust because users get exactly what they expect.

Dark patterns, on the other hand, twist the same tools to push users toward actions they did not want. A simple example is a "free trial" that quietly becomes a subscription.

Where good UX supports decision-making, dark patterns interfere with it.In essence, good UX respects user autonomy, while dark patterns quietly take advantage of it.

Psychological and Marketing Foundations
Dark patterns succeed because they exploit behavioral biases. As stated before, humans naturally choose the path of least resistance, a tendency known as the Law of Least Effort [1]. By making the profitable option easier, companies guide behavior without appearing forceful.

Mathur et al. (2019, pp.6) found that scarcity messages increased conversions by up to 30 % [5], exploiting loss aversion, the idea that people fear losses more than they value gains. Prompts such as "Join 5,000 others who upgraded" tap into conformity biases.

Raw Studio (2023) describes dark patterns as part of the "ethical trade-off of modern UX'; where user satisfaction becomes secondary to metrics such as retention and sign-ups [12]. The Business and Information Systems Engineering (pp.1) study argues that ethical design builds loyalty slowly, while manipulative design delivers immediate sale [10].

User Impact and Ethical Implications
The consequences for users are well-documented. Di Geronimo et al. (2020, pp.8) report that repeated exposure to manipulative cues leads to frustration and a sense of being controlled [6]. Research aligns with the industry observations summarized widely:
1.Certain dark patterns violate consumer protection and GDPR principles [13].
2.Customer loyalty decreases dramatically once users recognise manipulation [7].
3.Repeated friction erodes user experience and increases abandonment rates [6].
4.Negative reviews accumulate as users publicly express frustration [12].
5.Brand credibility is damaged, sometimes permanently [10].

This study explores if in today's digital economy, does design truly serve the user, or has it been repurposed to serve the business first?

Conclusion

This research paper shows that modern UI/UX design increasingly reflects business priorities, which often overshadow the main aim of supporting users. The widespread use of dark patterns across digital platforms demonstrates that these techniques have become part of mainstream product strategy rather than infrequent design choices. While such patterns can successfully increase sign-ups, purchases or time spent on a service, they create tension between what the business wants and what the user actually intends to do.

The observations suggest that users frequently feel misled when interacting with designs that complicate simple tasks. Over time, this shapes how they perceive a brand's values and turns trust into doubt. As users grow aware, regulatory bodies have begun scrutinizing these interfaces more seriously, signaling that businesses may face greater accountability for the design tactics they employ.

The findings suggest that long-term success may depend less on tactics that push users into action and more on design approaches that respect their independence. Ethical design fosters loyalty supports genuine engagement and builds credibility in markets. Moving forward, companies that priorities transparency and user well-being are likely to stand out, setting a new standard for responsible digital design.

Future Implications

In the future, digital product design will need to undergo significant changes as a result of increased awareness of dark patterns. Companies will need to lay emphasis on honesty and clarity when it comes to designing, as users will gain more knowledge and regulatory agencies will start to examine such interfaces.

Design teams are expected to replace dark patterns with positive nudges that help users make conscious choices that benefit them. These nudges can still guide behavior, but they do so with more frankness and responsibility.

Businesses may recognize that long-term trust with the brand is more valuable than short-lived gains in conversions and thus view ethical design as a competitive advantage. This creates opportunities for clearer subscription models and interfaces that guide users with positive engagement.

Educational institutions will also play a significant role by embedding ethics, behavioral psychology and responsible marketing principles into the UX curriculum.

Future research has the possibility to expand on the long-term psychological and behavioral impact of dark patterns across different user groups. Since the industry appears to be moving toward a more accountable digital landscape, there is room to research if user free will becomes a defining measure of good design.

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