



CREATIVE MANIPULATION: A CASE STUDY OF CONFIRMISHAMING AS A DECEPTIVE DESIGN PATTERN

Milvydas KNYZELIS 


Contemporary Communication Department, LCC International University, Kretingos str. 36, LT-92307 Klaipėda, Lithuania

Article History:

- received 2 January 2024
- accepted 24 May 2024

Abstract. This research article explores the intersection between creativity and deceptive design patterns, focusing on the concept of confirmshaming within the broader framework of a creative society. Focusing on confirmshaming as a case study, this article explores how such deceptive design practices exemplify the dark side of creativity, where digital technologies are used to manipulate user behavior. The aim of this research is to explore the mechanisms and impacts of confirmshaming on user decision-making. By emphasizing the importance of ethical awareness and accountability in digital design practices, this study advocates for the preservation of user autonomy in digital interactions. Ultimately, this article should serve as a call to action for the design community to prioritize responsible and humane design of digital technology.

Keywords: confirmshaming, creative society, dark creativity, dark user experience patterns, deceptive design, digital creativity, user experience, user experience design.

 Corresponding author. E-mail: mknyzelis@lcc.lt

1. Introduction

Currently, there is a widespread push for creativity in all aspects of human existence – from job advertisements seeking “creative thinkers” to educational curricula designed to foster creativity from a young age and leaders across various disciplines calling to “unleash” our creative potential (Mould, 2018). Even the way we choose what to eat and the way we craft our *curriculum vitae* is influenced by the mantra of creativity and creative thinking. We are constantly reminded that creativity is the key to success and fulfillment. In the words of Jeanes (2006, p. 127) “create/innovate or die” is the absolute and unchallenged truth of our current social, economic, and political contexts. Kačerauskas (2014) argues that current societal state can be titled as a creative society, which marks a significant shift from traditional societal structures towards one where creativity is the main driver of economic, social, and technological development. And whilst creativity in our modern world is celebrated as a hallmark of human innovation, the negative side of creativity is often overlooked (Cropley, 2010). Such constant pursuit of creativity rarely comes with a cautionary note about its potential misuse. The realization that creativity, when unchecked, can serve as a vehicle for malevolent ends, challenges us to reconsider our pursuits of unchained creativity.

In terms of the academic creativity discourse, there is a lack of consensus among scholars about what should fall under the negative or “dark” side of creativity. Runco (2010) presents a compelling argument, comparing creativity to an ordinary tool, such as a hammer, and thus

arguing that creativity in itself is neither negative nor positive, but depends on the person exercising it. However, such an optimistic view that creativity does not have a dark side may oversimplify the complex nature of creativity. Unlike a tool that can be set aside, human cognition does not afford us the luxury to simply “turn off” our creative abilities at will. This nuance introduces a philosophical dilemma: faced with a morally ambiguous task, can a creative individual choose not to engage their creative capacities, or rather, the creative view is tied to the task at hand, regardless of its moral implications?

This philosophical question introduces the underlying motivation for the production of this study: the ethical employment of creativity. Using the case study of confirmshaming within digital design as a manifestation of “creativity gone wrong” this article seeks to expand the literature on the dark applications of creative thought. Confirmshaming, as a single element within the broader collection of dark user experience (UX) patterns was introduced by Harry Brignull in 2010. The same patterns are sometimes called deceptive design patterns in order to avoid negative racial connotations, thus both terms may appear across this article, but should not be confused. Brignull (2024) defines dark or deceptive UX design patterns as tricks used in websites and apps that make you do things that you did not mean to, like buying or signing up for something. These dark or deceptive UX design patterns embody the misuse of creative skills to manipulate and exploit users of the digital interface and, in such way illustrates the “dark side” of creativity. Despite the legislative efforts, such as the Digital Services Act (DSA) and California Consumer Privacy Act (CCPA), to regulate these practices, their persistence highlights the necessity of ongoing alertness (Brignull, 2024).

The decade-long journey to recognize and regulate such questionable design patterns highlights the challenges of adapting ethical frameworks to the fast pace of technological advancements. In this manner, the study of confirmshaming and similar deceptive practices not only sheds light on the dark side of creativity but also serves as a call to action for ethical responsibility in the creative society. Therefore, the upcoming chapter introduces the complexities of defining dark creativity, existing literature on the concept of creative society as a current paradigmatic shift, types of deceptive design patterns, and motivations for incorporating it. The subsequent chapter will delve deeper into the realms of confirmshaming as an exemplary case of dark creativity within digital technology design.

2. Background and literature

Before looking into the aspects of the dark side of creativity, it is crucial to clarify what is meant by the term “creativity” itself. Runco and Jaeger (2012) humorously observe that nearly every scholarly article on creativity proposes a new definition, resulting in a lack of consensus about what is meant by creativity overall. Nonetheless, Morris I. Stein (1953) is usually acknowledged in the creative research field as a pivotal figure in articulating a useful and comprehensive definition of creativity. Stein (1953, p. 311) posits that creativity is “the production of a novel work that is accepted as tenable or useful or satisfying to a group at some point in time”. According to Stein (1953), creativity requires both novelty and utility. These two components – originality and effectiveness – are recurrent in various scholarly attempts to define creativity (Runco & Jaeger, 2012). And even though not every definition

emphasizes effectiveness as a key component of creativity, the element of originality or novelty is often regarded as the cornerstone of creative work. As Runco and Jaeger (2012, p. 92) suggest, “if something is not unusual, novel, or unique, it is seen as commonplace, mundane, or conventional – not original, and therefore, not creative”.

However, applying Stein’s definition to morally ambiguous creation introduces complexity, particularly regarding the aspect of usefulness. Take, for instance, the invention of gas chambers – one could not disagree that it was indeed an original method implemented for executions in death camps, which served as an effective means for mass murder. When assessed through Stein’s definition, the invention of gas chambers meets the criteria of both originality and effectiveness. Does this then imply that such an invention could be considered an outcome of the creative process? As it was suggested by James et al. (1999), people often fail to recognize that a substantial amount of creative efforts actually serve negative ends. Cropley (2010, p. 360) argues that failure to acknowledge dark side of creativity is harmful not only to individuals, but society as a whole, by opening doors for “manipulation, deception, exploitation, fraud, crime, and terrorism”.

For the sake of a detailed background, it is important to expand more on the concept of creative society as a current societal state that is affecting the object of this study. As argued by Reimeris (2016), building on Florida’s (2005) creative class, a creative society is a continuation of the information and knowledge society. According to Kačerauskas (2014) emergency of creative society marks a shift from traditional societal structures towards one where creativity is the main driver of economic, social, and technological development. While, widespread employment of technology is often considered as a characterizing feature of a creative society, in such a society, technology emerges not merely as an instrument or a backdrop but rather as a stimulant that enables and shapes creative expression across various domains (Reimeris, 2016). As Kačerauskas (2015a) mentioned in creative society, creativity, and technology go hand in hand, while technology fuels creativity by providing new tools and platforms for expression and innovation, creativity drives technological development. This environment of creative society nurtures a culture where creativity is not confined to artistic pursuits but is integrated into the fabric of everyday life, influencing how communities engage, communicate, and innovate (Kacerauskas, 2020). Building on the foundational understanding of the creative economy, where creativity and technology intertwine to shape social, economic, and technological advancements, it becomes evident that creativity has emerged as a driving force in the modern economy (Stern & Seifert, 2008). As creativity becomes a valued commodity, the pursuit of economic gain through creative means intensifies, leading to innovative yet sometimes ethically questionable practices (Kačerauskas, 2015b). One of such practice, the dark UX patterns, serves as an example of how creativity, when used for increasing economic gain, can gradually progress into the “dark side”.

The realm of dark UX patterns has received significant attention, both within the professional design community and academic research, highlighting the ethical concerns these practices raise (Brignull, 2024; Cara, 2019; Gray et al., 2018; Rosala, 2023; Sapio, 2020). And while the digital design landscape features a variety of elements tagged under the umbrella term of dark or deceptive design patterns, these elements vary significantly in their intent and impact – ranging from malevolent to subtly coercive (Mathur et al., 2021). As there is a lack of

consensus in categorizing deceptive design patterns, there is even more disagreement about the ethical grounds of these deceptive design practices. For instance, Parmer (2022) and Wang et al. (2023) argue that dark UX patterns might not appear as manipulative as other design methods, while Sai Chivukula et al. (2018) debate the fine line between manipulation and persuasion inherent in such design methods. However, more scholarship (Bongard-Blanchy et al., 2021; Brignull, 2024; Chromik et al., 2019; Mathur, 2021; Monge Roffarello & de Russis, 2022) is leaning towards the spectrum that deceptive design patterns are employed not for the interest of the user. As Brignull (2024) puts it, these deceptive design tactics encompass a broad spectrum of manipulative methods including misleading navigation paths, hidden costs, obscured information, and the exploitation of psychological biases to subtly influence user decisions in a way that prioritizes the interests of organizations, websites, or platforms. The ingrained mindset within the digital design field of describing individuals as mere “users” introduces yet another philosophical and moral debate about the depersonalization of human beings, however, such discussion falls outside of this research article.

Since this research is centered around the manipulative design methods, it is important to acknowledge how manipulation is understood in this context. The distinction between persuasion and manipulation has drawn scholarly attention for decades. Scholars agree that manipulation is the act of subverting decision making power and denying ownership over someone’s free choice (Price Tangney et al., 1996). Coercion and persuasion though often going hand in hand with manipulation are completely distinct concepts. Whilst persuasion is focused on providing reasoning person could assess to change one’s mind; coercion is about making coercer’s option the only acceptable option (Susser et al., 2019). Manipulation on the other hand, cause individuals to mistakenly feel they are making their own conscious choices and are in control of their own destiny, while in reality, ownership over their actions is taken from them (Susser et al., 2019). According to Mathur (2021), manipulation is exploitative, impoverish individuals, unfair, and undermine individual autonomy. Bongard-Blanchy et al. (2021) study on confirmshaming together with other deceptive design patterns reveals that even users with previous awareness of deceptive design practices are not protected from manipulative designs and when presented with a choice often choose an option favored by the site. Such phenomenon was noticed even earlier and titled as “dark pattern blindness” (di Geronimo et al., 2020). If following Susser et al. (2019) description feeling manipulated means that you do not fully understand why you acted the way that you did, or whether your actions served your own or someone else’s ends, then confirmshaming could be considered as a form of manipulation.

Even if the field of dark UX patterns has been researched for more than a decade, there is still a lack of consensus between definition of dark UX patterns (e.g. Mathur et al., 2021) in bibliographic study finds nineteen different definitions used in the scholarly literature), and there is even more misconception about the classification of these patterns. Mathur et al. (2021) in the same bibliographic study on dark UX patterns categorize from five to eighteen different taxonomies with the intentions ranging from asymmetric to deceptive and restrictive. Besides that in the often case different authors use distinct titles for categorization making dark UX patterns into a chaotic research area. Thus, it is worth to acknowledging that in this study the taxonomy of confirmshaming as a deceptive design pattern together

with its definition is borrowed from the Brignull (2024) since he pioneered this research area. Finally, talking about how this field has developed, it must be said that dark UX patterns have become increasingly sophisticated, evolving in response to advancements in technology and changes in user behavior (Obi et al., 2022). The development of more complex algorithms, the rise of big data, and the growing reliance on digital platforms for everyday activities have all contributed to an environment where deceptive design patterns can flourish (Chromik et al., 2019).

This chapter introduced the necessary background for understanding the main artifact of this study, including the concepts of dark creativity and how it is defined in the scholarly discourse, creative society as a current societal state, and dark UX patterns as a set of ethically questionable design practices. The upcoming chapter will look closer into the confirmshaming as an exemplary case of dark creativity manifested within digital user interface design.

3. Confirmshaming case study

As argued by Monge Roffarello and de Russis (2022) deceptive design patterns exploit psychological vulnerabilities and cognitive biases to subtly coerce users into making decisions that may not be in their best interest. Confirmshaming is a unique element in this landscape of deceptive design patterns, characterized by its direct appeal to the emotions of users, specifically guilt, and shame, to encourage certain actions or decisions. Confirmshaming employs carefully constructed messages that most often present opting out as a morally inferior choice, effectively nudging users toward the desired action under the guise of autonomy (Gray et al., 2018). This depletion of free choice, underpinned by emotional appeal, distinguishes confirmshaming from other deceptive design patterns and makes it especially manipulative. Despite the efforts to regulate confirmshaming and other deceptive design practices (e.g.: the DSA and CCPA), their persistence highlights the need for ongoing alertness (Brignull, 2024).

What makes confirmshaming unique among other deceptive design patterns is its implementation. Unlike patterns such as “sneaking into basket” or “preselection”, which predominantly require only technical adjustments in order to be deployed; “forced continuity” where users are unwittingly enrolled in recurring subscriptions; “disguised ads” which capitalizes disguising advertisement as content; confirmshaming demands a deeper level of creative engagement, which makes it a suitable case for the study of dark creativity. Confirmshaming requires crafting content that emotionally manipulates users – guilt or shaming them into making decisions they might not necessarily have considered (Gray et al., 2018). This differentiates confirmshaming from other deceptive design practices, which may require a less creative approach by allowing to follow the template or simply to rely on straightforward technical mechanisms.

Traditional approaches to creativity research, such as Rhodes (1961) investigated creativity through the *4 Ps* framework: person, process, product, press (or environment). Whilst Runco (2010) posits that creativity, akin to a neutral tool such as a hammer, possesses no inherent moral value; rather, its ethical implications are determined by the user’s intentions. However, if looking through the lens of Rhodes’ (1961) *4 Ps of creativity* it is clear that Runco (2010)

focuses only on a single *P* – the process of creativity. It is true that there might not be anything morally debatable within the process of creativity, however, judging creativity only as a process would mean diminishing other forces involved. The exploration of creativity through the Rhodes' 4 *Ps* framework sets the stage for a deeper investigation into how dark creativity manifests in the design of user interfaces.

Looking through the lens of 4 *Ps* it might seem that confirmshaming is focused only on a single aspect of *Ps* – the product, or the final message. However, looking more holistically there are other factors that categorize confirmshaming as a dark creativity case. As argued by Cropley (2010) the creativity with the intention of causing harm to others can only be understood by studying not only the product, but also the person, process and press. However, following the idea of Runco (2010), that the creative process is neither good nor bad or rather neutral, this study will not focus on the creation process of confirmshaming elements.

Starting with the first *P* – the product it must be said that successful deployment of confirmshaming requires an interplay between textual and visual content. Crafting an effective confirmshaming message demands a deep understanding of human emotional triggers and the ability to articulate these triggers through language that resonates with the target audience (Voigt et al., 2021). The narrative constructed must be powerful enough to evoke an emotional response yet subtle enough to avoid overt coercion (Löschner & Pannasch, 2023). For example, a user declining to subscribe to a newsletter might be met with a button saying, *No thanks, I am fine with losing customers*, or *No thanks, I'd rather do all the hard work myself*. User presented with a pop-up window asking for personal information in exchange for a discount can be met with a button saying *Nah, I like paying full price*, or *"No thanks, I don't like to save money, etc.*

Beyond the textual content, the visual design of confirmshaming elements play an equally important role in enhancing the emotional impact of the message. Designers must make strategic choices about color, typography, layout, and visuals to draw attention (Voigt et al. 2021). Colors and typography can be used to make some text or a button stand out from the background, while making other elements to blend within the surrounding space. Specific visuals can be used to heighten the emotional impact of the text, for example, the *Duolingo* language learning platform features their green owl mascot as crying if one does not use the *Duolingo* application for a certain period of time. In another instance, the crying bear icon appears as a notification to request for switching off an ad blocker accompanied by two buttons, the first one to *Turn off ad Blocker*, while the other functioning as a cancel button reading *I am a bad person*.

The notion of the press (or the environment) is important in explaining the widespread implementation of confirmshaming. As Brignull (2024) voices out – some tech giants are increasing conversions through the use of confirmshaming and other deceptive patterns, thus imposing the paradigm, that being successful in the tech world involves using deceptive design patterns. Mejtoft et al. (2021) present an analysis of websites "bypassing" European Union legislation by employing deceptive design patterns for their own gain. Such environment, influenced by the rapid pace of digital innovation and the competitive pressure to capture user attention, fosters a landscape where engagement metrics and conversion rates are cherished at the expense of ethical considerations (Brignull, 2024).

When it comes to the aspect of a person, Monteiro (2019) argues that other professions capable of inflicting harm usually have some instance of an ethical code or licensing, for example, doctors, lawyers, or journalists. However, such an ethical oath does not exist in the world of design. Even if most design education features the ethical dimension, there is no ethics committee that would be able to enforce ethical behavior on designers (Findeli, 2001). Therefore, a person is left to be the sole judge of whether their creative products are morally and ethically correct. This autonomy, even if celebrated by creatives, places a significant amount of responsibility on individual designers to navigate the complex moral landscape of their profession without the structured guidance or accountability mechanisms that exist in other fields.

4. Discussion

Stripped down to the basic meaning, confirmshaming employs shame or guilt in order to manipulate individuals. Shame is a strong emotion of feeling disgust in one's own actions because of violating some moral standards (Price Tangney et al., 1996). As argued by Lickel et al. (2014) being ashamed is such intensively disliked feeling, which in the long term can produce behavioral changes. Though confirmshaming does not seek to invoke behavioral changes in the long run, it exploits inherent psychological trait – the disgust of feeling ashamed, for the benefit of the platform. While in typical scenarios, unsubscribing from a platform does not invoke shame, with employing confirmshaming and converting ordinary close button into a button saying *I am a bad person* organizations make unsubscribing process an attack on person's self-image.

In addition, confirmshaming cases typically do not employ or deviate from standardized user interface design methods. According to Mahajan and Shneiderman (1997), common words associated with the *decline* button in the graphical user interfaces are *cancel*, *close*, *exit*, *quit*. While in the examples of confirmshaming usage, the buttons allowing functionality of closing or cancelling the pop-up window usually begin with *no*, *thanks...* followed by the shaming or guilt phrase, e.g. *no thanks, I don't care what my cat eats*. In this way the designers of confirmshaming messages are appropriating another phrase to serve as a decline function, again stressing out the originality and creative capacities required in employing confirmshaming pattern.

Though very little attention in this study was placed on the fact that confirmshaming is a feature of technology, it is important to acknowledge that within the context of creative society, where technology and creativity goes hand in hand in shaping our everyday lives. Various studies (Burg et al., 2022; Nahey & Oyibo, 2024) confirmed that confirmshaming methods are effective in influencing consumer purchase decision in online shopping environments. Such widespread adoption of confirmshaming methods illustrates not only the powerful role of creativity coupled together with latest technology in influencing user behavior but also emphasizes the broader possibilities of technological manipulation within the context of creative society. As such, deceptive design patterns exploit people by undermining their autonomy and trust for the sake of organizational benefit, it demands a discussion about the moral responsibilities of those who wield such powerful tools. This research highlights the need for further discourse within the context of creative society to ensure that technological advancements enhance user experiences without compromising ethical standards.

5. Conclusions

In conclusion, this study has looked into the interconnectedness between digital creativity, deceptive design patterns, and ethical responsibility within the contemporary digital landscape. The case study of the deceptive design pattern of confirmshaming has illustrated the versatile nature of digital technology, where creativity is celebrated as a driving force of human innovation, though the dark side of creativity is often overlooked. Central to this study is the concept of a creative society, which marks a significant shift from traditional societal structures towards one where creativity is the main driver of economic, social, and technological development. The continuous development of complex algorithms, the rise of big data, and the growing reliance on digital platforms for everyday activities have all contributed to an environment where deceptive design can flourish. Within this context, the confirmshaming case study acts as an illustration of the ethical responsibility designers hold when crafting digital experiences. As digital technologies continue to evolve at a rapid pace, the potential for misuse grows, this study advocates for an ongoing dialogue within society to ensure that as our digital environments become more sophisticated, they also become more humane.

References

- Bongard-Blanchy, K., Rossi, A., Rivas, S., Doublet, S., Koenig, V., & Lenzini, G. (2021). "I am definitely manipulated, even when i am aware of it. It's ridiculous!" – Dark patterns from the end-user perspective. In W. Ju, L. Oehlberg, S. Follmer, S. Fox, & S. Kuznetsov (Eds.), *DIS '21: Proceedings of the 2021 ACM Designing Interactive Systems Conference* (pp. 763–776). Association for Computing Machinery. <https://doi.org/10.1145/3461778.3462086>
- Brignull, H. (2024). *Deceptive patterns: Exposing the tricks tech companies use to control you*. Testimonium Ltd.
- Burg, C., Rehm, M., & Gomez Cubero, C. (2022). The effects of interaction strategy and robot intent on shopping behavior. In *Proceedings of 2022 31st IEEE International Conference on Robot and Human Interactive Communication (RO-MAN): Social, Asocial, and Antisocial Robots* (pp. 1001–1006). Institute of Electrical and Electronics Engineers Press. <https://doi.org/10.1109/RO-MAN53752.2022.9900562>
- Cara, C. (2019). Dark patterns in the media: A systematic review. *Network Intelligence Studies*, 7(14), 105–113.
- Chromik, M., Eiband, M., Völkel, S. Th., & Buschek, D. (2019). Dark patterns of explainability, transparency, and user control for intelligent systems. In *Association for Computing Machinery Intelligent User Interfaces Workshops 2019*. Los Angeles, California, United States. <https://ceur-ws.org/Vol-2327/IUI19WS-ExSS2019-7.pdf>
- Cropley, D. H. (2010). The dark side of creativity: A differentiated model. In D. H. Cropley, A. J. Cropley, J. C. Kaufman, & M. A. Runco (Eds.), *The dark side of creativity* (pp. 360–373). Cambridge University Press. <https://doi.org/10.1017/CBO9780511761225.020>
- Findeli, A. (2001). Rethinking design education for the 21st century: Theoretical, methodological, and ethical discussion. *Design Issues*, 17(1), 5–17. <https://doi.org/10.1162/07479360152103796>
- Florida, R. (2005). *Cities and the creative class*. Routledge. <https://doi.org/10.4324/9780203997673>
- Geronimo, di L., Braz, L., Fregnan, E., Palomba, F., & Bacchelli, A. 2020. UI dark patterns and where to find them: A study on mobile applications and user perception. In *CHI '20: Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems* (pp. 473–486). Association for Computing Machinery. <https://doi.org/10.1145/3313831.3376600>
- Gray, C. M., Kou, Y., Battles, B., Hoggatt, J., & Toombs, A. L. (2018). The dark (Patterns) side of UX design. In *CHI 2018: Proceedings of the 2018 CHI: Conference on Human Factors in Computing Systems* (pp. 534–547). Association for Computing Machinery. <https://doi.org/10.1145/3173574.3174108>

- James, K., Clark, K., & Cropanzano, R. (1999). Positive and negative creativity in groups, institutions, and organizations: A model and theoretical extension. *Creativity Research Journal*, 12(3), 211–226. https://doi.org/10.1207/s15326934crj1203_6
- Jeanes, E. L. (2006). "Resisting creativity, creating the new": A Deleuzian perspective on creativity. *Creativity and Innovation Management*, 15(2), 127–134. <https://doi.org/10.1111/j.1467-8691.2006.00379.x>
- Kacerauskas, T. (2020). Creative economy and the idea of the creative society. *Transformations in Business and Economics*, 19(1), 43–52.
- Kačerauskas, T. (2015a). Creative society: Concepts and problems. *Cultura: International Journal of Philosophy of Culture and Axiology*, 12(2), 27–44. <https://doi.org/10.5840/cultura201512219>
- Kačerauskas, T. (2015b). Technologies in creative economy and creative society. *Technological and Economic Development of Economy*, 21(6), 855–868. <https://doi.org/10.3846/20294913.2015.1036325>
- Kačerauskas, T. (2014). Kūrybos visuomenės terminai ir sampratos. *LOGOS: religijos, filosofijos, komparatyvistikos ir meno žurnalas*, 78, 6–18.
- Lickel, B., Kushlev, K., Savalei, V., Matta, Sh., & Schmader, T. (2014). Shame and the motivation to change the self. *Emotion*, 14(6), 1049–1061. <https://doi.org/10.1037/a0038235>
- Löschner, D. M., & Pannasch, S. (2023). Different ways to deceive: Uncovering the psychological effects of the three dark patterns preselection, confirmshaming and disguised ads. In C. Stephanidis, M. Anthona, S. Ntoa, & G. Salvendy (Eds.), *HCI International 2023 – Late Breaking Posters. HCII 2023. Communications in Computer and Information Science* (Part I, Vol. 1957, pp. 62–69). Springer. https://doi.org/10.1007/978-3-031-49212-9_9
- Mahajan, R., & Shneiderman, B. (1997). Visual and textual consistency checking tools for graphical user interfaces. *IEEE Transactions on Software Engineering*, 23(11), 722–735. <https://doi.org/10.1109/32.637386>
- Mathur, A. (2021). Identifying and measuring manipulative user interfaces at scale on the web. In Y. Kitamura, A. Quigley, K. Isbister, & T. Igarashi (Eds.), *CHI EA '21: Extended Abstracts of the 2021 CHI Conference on Human Factors in Computing Systems* (pp. 1–5). Association for Computing Machinery. <https://doi.org/10.1145/3411763.3457782>
- Mathur, A., Kshirsagar, M., & Mayer, J. (2021). What makes a dark pattern... Dark? Design attributes, normative considerations, and measurement methods. In *CHI '21: Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems* (pp. 1–18). Association for Computing Machinery. <https://doi.org/10.1145/3411764.3445610>
- Mejtoft, Th., Frängsmyr, E., Söderström, U., & Norberg, O. (2021). Deceptive design: Cookie consent and manipulative patterns. In A. Pucihar, R. M. Kljajić Borštna, R. Bons, H. Cripps, A. Sheombar, & D. Vidmar (Eds.), *34th Bled e-Conference: Digital Support from Crisis to Progressive Change. Online Conference Proceedings* (pp. 393–404). University of Maribor Press. <https://doi.org/10.18690/978-961-286-485-9.29>
- Monge Roffarello, A., & Russis, de L. (2022). Towards understanding the dark patterns that steal our attention. In S. Barbosa, C. Lampe, C. Appert, & D. A. Shamma (Eds.), *CHI EA '22: Extended Abstracts of the 2022 CHI Conference on Human Factors in Computing Systems* (pp. 1–7). Association for Computing Machinery. <https://doi.org/10.1145/3491101.3519829>
- Monteiro, M. (2019). *Ruined by design: How designers destroyed the world, and what we can do to fix it*. Mule Books.
- Mould, O. (2018). *Against creativity*. Verso.
- Naheyan, T., & Oyibo, K. (2024). The effect of dark patterns and user knowledge on user experience and decision-making. In N. Baghaei, R. Ali, K. Win, & K. Oyibo (Eds.), *Persuasive Technology: 19th International Conference. PERSUASIVE 2024. Lecture Notes in Computer Science* (Vol. 14636, pp. 190–206). Springer. https://doi.org/10.1007/978-3-031-58226-4_15
- Obi, I., Gray, C. M., Sai Chivukula, Sh., Duane, J.-N., Johns, J., Will, M., Li, Z., & Carlock, Th. (2022). Let's talk about socio-technical angst: Tracing the history and evolution of dark patterns on *Twitter* from 2010–2021. *arXiv*. <https://arxiv.org/pdf/2207.10563>
- Parmer, W. J. (2022). Manipulative design through gamification. In F. Jongepier & M. Klenk (Eds.), *Routledge research in applied ethics. The philosophy of online manipulation* (pp. 216–234). Routledge. <https://doi.org/10.4324/9781003205425-13>

- Price Tangney, J., Miller, R. S., Flicker, L., & Barlow, D. H. (1996). Are shame, guilt, and embarrassment distinct emotions? *Journal of Personality and Social Psychology*, 70(6), 1256–1269.
<https://doi.org/10.1037//0022-3514.70.6.1256>
- Reimeris, R. (2016). Theoretical features of the creative society. *Creativity Studies*, 9(1), 15–24.
<https://doi.org/10.3846/23450479.2015.1088902>
- Rhodes, M. (1961). An analysis of creativity. *The Phi Delta Kappan*, 42(7), 305–310.
- Rosala, M. (2023). Deceptive patterns in UX: How to recognize and avoid them. *Nielsen Norman Group*.
<https://www.nngroup.com/articles/deceptive-patterns/>
- Runco, M. A. (2010). Creativity has no dark side. In D. H. Cropley, A. J. Cropley, J. C. Kaufman, & M. A. Runco (Eds.), *The dark side of creativity* (pp. 15–32). Cambridge University Press.
<https://doi.org/10.1017/CBO9780511761225.002>
- Runco, M. A., & Jaeger, G. J. (2012). The standard definition of creativity. *Creativity Research Journal*, 24(1), 92–96. <https://doi.org/10.1080/10400419.2012.650092>
- Sai Chivukula, Sh., Brier, J., & Gray, C. M. (2018). Dark intentions or persuasion? UX designers' activation of stakeholder and user values. In *DIS '18 Companion: Proceedings of the 2018 ACM Conference Companion Publication on Designing Interactive Systems* (pp. 87–91). Association for Computing Machinery.
<https://doi.org/10.1145/3197391.3205417>
- Sapio, D. (2020). 10 evil types of dark UX patterns: How designers are using UX for evil. *Medium*.
<https://uxdesign.cc/10-evil-types-of-dark-ux-patterns-f5a408c43c62>
- Stein, M. I. (1953). Creativity and culture. *The Journal of Psychology: Interdisciplinary and Applied*, 36(2), 311–322. <https://doi.org/10.1080/00223980.1953.9712897>
- Stern, M. J., & Seifert, S. C. (2008). *From creative economy to creative society*.
<https://core.ac.uk/download/pdf/129586765.pdf>
- Susser, D., Roessler, B., & Nissenbaum, H. (2019). Online manipulation: Hidden influences in a digital world. *Georgetown Law Technology Review*, 4(1). <https://doi.org/10.2139/ssrn.3306006>
- Voigt, Ch., Schlögl, S., & Groth, A. (2021). Dark patterns in online shopping: Of sneaky tricks, perceived annoyance and respective brand trust. In F. F.-H. Nah & K. Siau (Eds.), *HCI in Business, Government and Organizations. HCIBGO 2021. Lecture Notes in Computer Science* (Vol. 12783, pp. 143–155). Springer-Verlag. https://doi.org/10.1007/978-3-030-77750-0_10
- Wang, X., Lee, L.-H., Bermejo Fernandez, C., & Hui, P. (2023). The dark side of augmented reality: Exploring manipulative designs in AR. *International Journal of Human-Computer Interaction*.
<https://doi.org/10.1080/10447318.2023.2188799>