#DARKPATTERNS: UX PRACTITIONER CONVERSATIONS ABOUT ETHICAL DESIGN

UXP² PEDAGOGY × PRACTICE

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ABSTRACT

There is increasing interest in the role that ethics plays in UX practice, however current guidance is largely driven by formalized frameworks and does not adequately describe "on the ground" practitioner conversations regarding ethics. In this late-breaking work, we identified and described conversations about a specific ethical phenomenon on Twitter using the hashtag #darkpatterns. We then determined the authors of these tweets and analyzed the types of artifacts or links they shared. We found that UX practitioners were most likely to share tweets with this hashtag, and that a majority of tweets mentioned an artifact or "shames" an organization that engages in manipulative UX practices. We identify implications for engaging in pragmatist ethics from a practitioner perspective.

BACKGROUND

Ethics and values have been discussed in the HCI community for the past decade, however, many of the established frameworks for discussing ethics have limited application in authentic design practices, and it is unclear how many practitioners are aware of and able to use such methods to support their design practices. Within our practice-led framing, we wish to discover the ways in which practitioners are already discussing issues of ethics and values through applied concepts such as "dark patterns." The neologism "dark patterns" was created [1] to discuss the impacts of unethical design practices and provide language to describe this phenomena.

A dark pattern is defined as "a user interface that has been carefully crafted to trick users into doing things...they are not mistakes, they are carefully crafted with a solid understanding of human psychology, and they do not have the user's interests in mind" [2].

Past research has shown that online design communities have become important places for designers to build their competency in practices such as design work critique [3] and socializing with fellow practitioners [4]. One such social media site, Twitter, is commonly used by practitioners. In this study, we engage with existing interest and scholarship within the HCI community on the nature of design practice, the place of ethics and values in design action, and the kinds of ethical concern that are particular to UX practice. We focus on practitioners' discourses on Twitter that relate to the ethical phenomenon of "dark patterns."
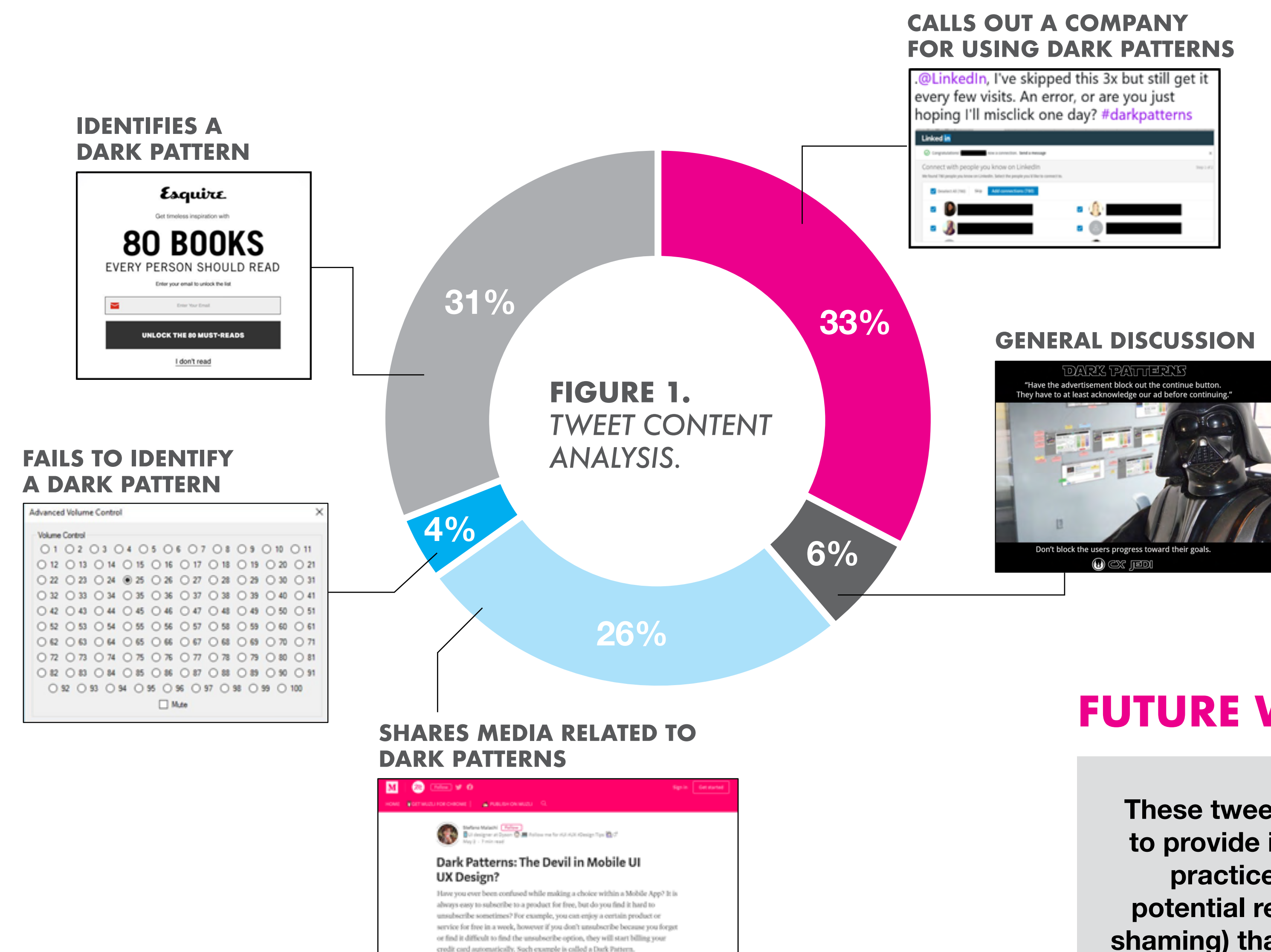
OUR APPROACH

We identified and described conversations about a specific ethical phenomenon on Twitter using the hashtag **#darkpatterns**. Our dataset was created by collecting all public tweets containing #darkpatterns written within a four-month period (May to August 2017; n=458) using the Twitter Streaming API. After collection, we removed duplicate tweets, re-tweets, and tweets in a foreign language, resulting in a final dataset (n=220). We then performed a content analysis, first focusing on tweet metadata (i.e., author, geolocation) and then on the contents of the tweet itself. Through content analysis [5] and inspection of linked profile information, we identified authors' occupations and geolocation data, as well as general themes present in the material being shared by authors. We then performed a thematic analysis [6] of tweets sharing a dark pattern using the findings from [7] to categorize concerns being raised by authors, nonexclusively assigning tweets to emergent themes. We found that UX practitioners were most likely to share tweets with this hashtag, and that a majority of tweets either mentioned an artifact or "shames" an organization that engages in manipulative UX practices. We also used an *a priori* typology of strategies that designers use to incorporate dark patterns, based on a corpus developed in our prior work [7].

FINDINGS

AUTHOR INFORMATION

We identified 210 unique authors from 27 different countries, with the United States (n=56) and the United Kingdom (n=35) containing the most authors. Within the United States, authors were located in 17 states, with authors predominately residing in California and other states with a dominant UX presence. Analyzing the profiles of tweet authors along with evidence from author bios and linked websites allowed us to determine the occupation of #darkpatterns authors. Occupation data was available for 184 of the unique authors identified. The majority of #darkpatterns authors held occupations or education in fields related to UX design (n=72/184). This finding confirms that these tweets largely reflect UX practitioner conversations about ethics.

CALLS OUT A COMPANY FOR USING DARK PATTERNS

IDENTIFIES A DARK PATTERN

GENERAL DISCUSSION

FIGURE 1. *TWEET CONTENT ANALYSIS.*

FAILS TO IDENTIFY A DARK PATTERN

SHARES MEDIA RELATED TO DARK PATTERNS

CLASSIFICATION		DEFINITION
16%	Forced Action	"Requiring the user to perform a certain action to access (or continue to access) certain functionality."
26%	Sneaking	"Attempting to hide, disguise, or delay the divulging of information that is relevant to the user."
29%	Interface Interference	"Manipulation of the user interface that privileges certain actions over others."
4%	Nagging	"Redirection of expected functionality that persists beyond one or more interactions."
25%	Obstruction	"Making a process more difficult than it needs to be, with the intent of dissuading certain action(s)"

FIGURE 2. *DISTRIBUTION OF DARK PATTERN TYPES.*

THEMATIC ANALYSIS

Our thematic analysis revealed general content sharing practices, such as: identifying dark patterns, identifying companies guilty of engaging in unethical design practices, general conversation about ethical design, sharing articles related to dark patterns, and attempting to identify a dark pattern, but mistaking bad design for unethical behavior. The distribution of the occurrences of themes within the data is illustrated in **Figure 1**. Authors most frequently used the #darkpatterns tag to identify dark patterns and hold companies accountable for employing unethical design tactics, suggesting they are using social media as a platform to promote ethical design practices. #darkpatterns tweets are being used to both share information about dark patterns so that they may be readily identified, and to publicly denounce companies for implementing dark patterns in their design practices. Through our analysis of the dark patterns being referenced in tweets, we found that interface interference, sneaking, and obstruction were the most common patterns addressed by authors (**Figure 2**).

CONCLUSION

In this late breaking work, we have engaged in a practice-led discourse regarding ethics in UX on Twitter. By using the #darkpatterns hashtag to isolate tweets that mention ethical concerns, we identified that practitioners are using social media as a tool to generate others' awareness of dark patterns through the sharing of exemplars, hold companies accountable through public shaming, and to promote a conversation about ethical design practices.

FUTURE WORK

These tweets have the potential to provide insight into designer practices, concerns, and potential remedies (e.g., public shaming) that could impact ethics scholarship in the HCI community. Potentially, these examples could be mined for ethics education in HCI, and as a test case to see what kinds of issues are currently impacting practice.

Synthetic work is needed to compare the ethical phenomena impacting practice and extant methods or ethical frameworks to identify opportunities for further research.

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