

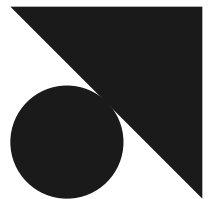
# Deceptive Pattern Survey Methodology



The survey platform, SurveySparrow, was used to ask a series of questions to learn how respondents reacted to various instances of potentially deceptive designs and further gauge understanding through open-ended questions.

Responses were analyzed using SurveySparrow's built-in reporting tools that allowed us to segment data and gain insight into answers to open-ended questions. Additional tools from Microsoft Excel and Azure Machine Learning further allowed us to gain a deeper understanding by structuring responses differently.

# Methodology for the Deceptive Pattern Survey



We've noticed the trend around discussions concerning dark patterns. Still, many of the discussions and pieces of content we've seen on the web make it evident that the matter isn't well-defined, causing us to speculate that the issue isn't widely understood.

We designed our survey to extract as much information as possible from respondents with as little priming as possible in an attempt to minimize bias.

During the introduction, we explained a deceptive pattern as follows:

A deceptive pattern – often called a dark pattern as well – is a kind of design element in a digital product that acts to deceive users in some fashion, often for financial gain.

After asking respondents for simple demographic information, we provided 5 examples of businesses using different tactics that either are or could be construed as deceptive.

The questions featured the following companies in this order: Spotify, TurboTax, Dotloop, Delta, and CNN. Respondents were allowed to select on of the following four options:

- Certainly a dark pattern
- Not a definitive dark pattern, but has some dark pattern elements
- Uncertain
- Not a dark pattern

After this series of questions, we asked respondents if they would like to divulge more details about suspected deceptive patterns in an open-end format. Selecting “No” completed the survey while “Yes” provided three more questions that asked for:

- 1 The name of the company
- 2 Details about the deception
- 3 Whether or not this occurrence was a deal-breaker moving forward with the business

# Data Collection & Reporting Process



The data we collected allowed us to uncover insights such as:

- **User demographics**

536 respondents completed the survey, ranging in age from 18 to 93, with the mean age being 41, the median 38, and the mode 35 – 48.9% reported as male, 49.4% as female, and 1.7% as non-binary.

- **Percentage of individuals who feel deceived when online**

We specifically wanted to see how many people confidently thought they'd encountered a deceptive pattern as well as how many claimed to feel uncertain.

- **Impact of feeling deceived**

A subset of users was asked to discuss a personal experience with deception and then divulge whether or not it was a deal-breaker moving forward with the business.

- **The names of businesses people feel are guilty of deception**

We included the names of several businesses in our report based on the nature of the respondent's claim.

- **Understanding of deceptive patterns**

We considered one to two of our multiple-choice answers as being correct – answers that fall outside of this could simply reflect a different perspective but are just as likely to represent a lack of understanding.



The first of our visual examples was Spotify, where we demonstrated the process for dropping from a paid account to a free version. We felt it was not an example of deception but also accepted that some could interpret the process as drawn out and potentially deceptive.

Since this was the most ambiguous of our results, we figured this would get better overall outcomes compared to starting with our concrete examples from CNN and Delta that could potentially condition users to scrutinize more heavily.

Manual grouping, counting, and omitting some of this data helped us in a couple of different ways, such as determining how many users didn't recall the business but had some recollection of the deceptive process. We also had to deduplicate mentions of certain companies, such as cases where a user would use the word "Amazon" more than once in a response which our system would count.

We also omitted several responses from some of our visuals (such as the word cloud) to remove mentions of the companies we had used in our examples, despite requesting our respondents discuss a business not featured in the survey.

With our data identified and arranged, we analyzed everything at our disposal and produced the following report on deceptive patterns in digital products.

