

## Project Background

As the computing context broadens, everyone has to interact with digital technologies everyday. Our digital encounters influence and define parts of our everyday lived experiences. The digital experiences are by design, with the chase for short-term revenue return and market growth, companies are using dark patterns, manipulative design patterns, to trick people into clicking, subscribing, downloading, or giving out personal data.

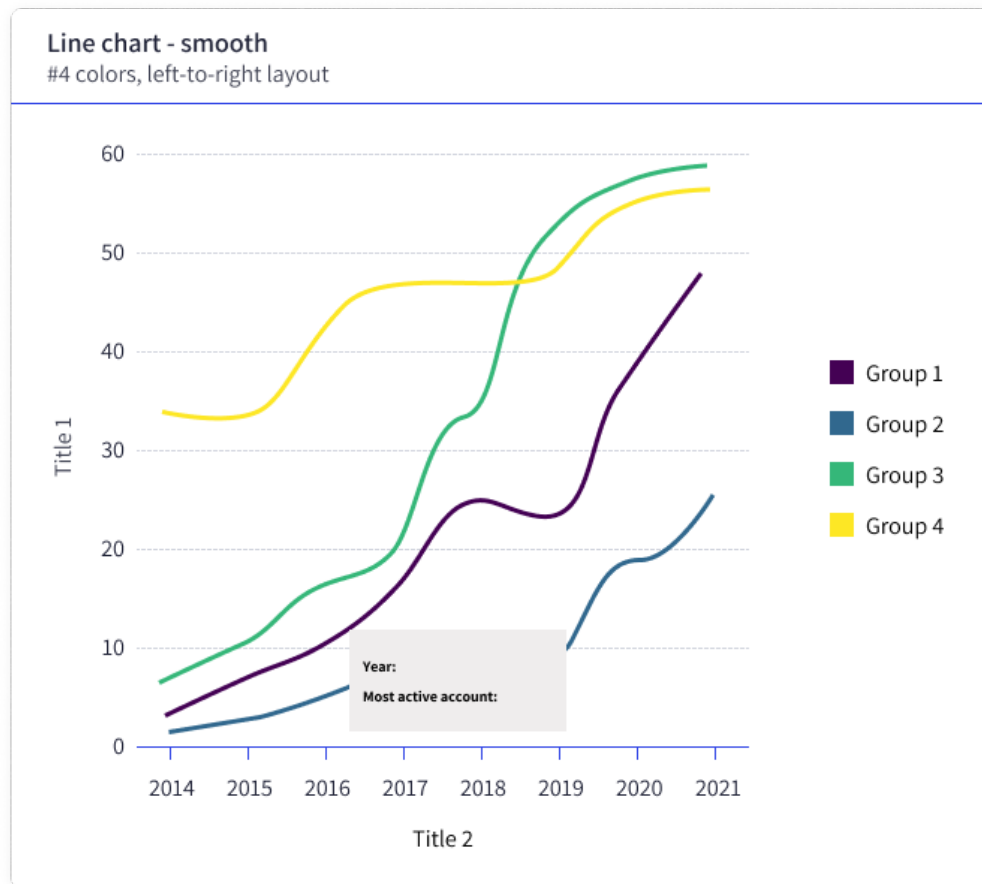
Researchers and practitioners are finding ways to train employees and companies to build ethical awareness. However, these trainings and design knowledge don't always reach everyday technology users, more efforts are needed to help everyday users recognize and defense themselves against dark and manipulative design patterns.

The first step in achieving this goal is to **understand how people currently view on dark patterns**, and their **sensitivity towards dark patterns**.

## Task 1: Line Chart

視覺化年份與 tweet 類別分佈折線圖，可看出不同年份中 tweet 類別的分佈。以年份（Year）為橫軸，description\_group 次數統計為縱軸（null 資料可直接忽略不計），另加上 Tooltip，滑鼠移到折線上時可以顯示該年度最活躍的 account。

結果示意：



## Task 2 : WordCloud

使用 WordCloud 視覺化年份與 tweet 關鍵字，關鍵字使用 tweet\_final 中 tweet 內容欄位。請加入讓使用者可操作的 slide bar，讓使用者可選擇年份呈現不同的 WordCloud。字體顏色對應類別，字體大小對應次數統計。  
結果示意：



## **Dataset**

Tweets from 2010 to 2022

tweets\_final

tweet\_user\_info

Note: description\_group in the tweet\_user\_info maps to discipline in the tweets\_final