



PROBLEM STATEMENT TITLE: DESIGN AND PROTOTYPE INNOVATIVE APP OR SOFTWARE-BASED SOLUTIONS THAT CAN DETECT THE USE, TYPE, AND SCALE OF DARK PATTERNS ON E-COMMERCE PLATFORMS

TEAM NAME: CONSCIENS

TEAM LEADER NAME: NITIN GOEL

INSTITUTE NAME: MSRIT



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YES

NO

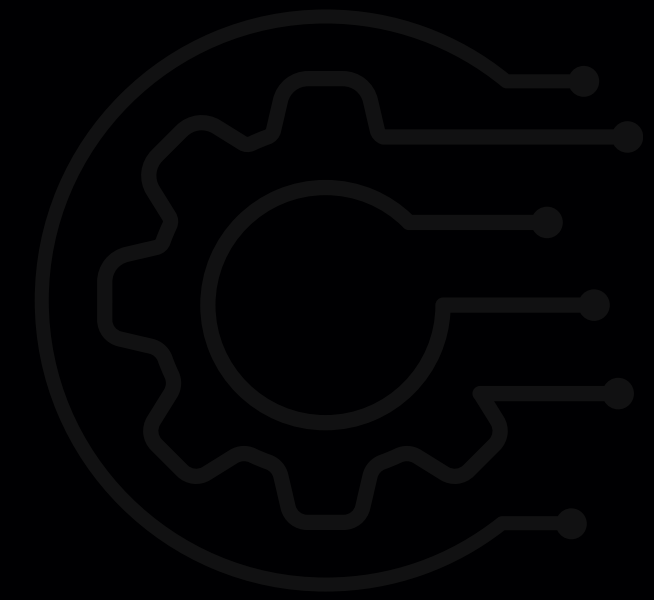


DARK PATTERNS

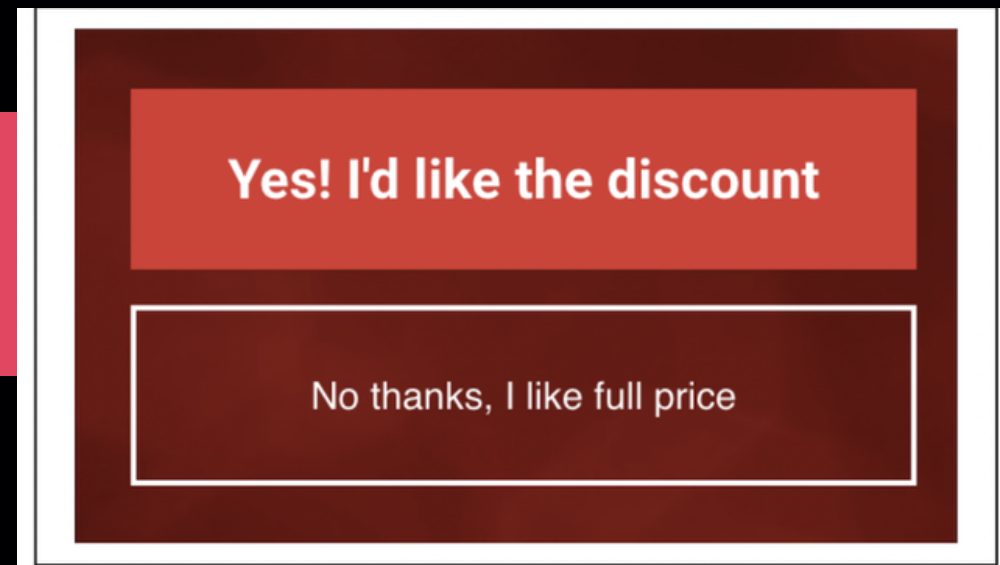
Dark patterns have been defined as any practices or deceptive design patterns using UI/UX (user interface/user experience) interactions on any platform; designed to mislead or trick users into doing something they originally did not intend or want to do; by subverting or impairing the consumer autonomy, decision making or choice; amounting to misleading advertisement or unfair trade practice or violation of consumer rights.



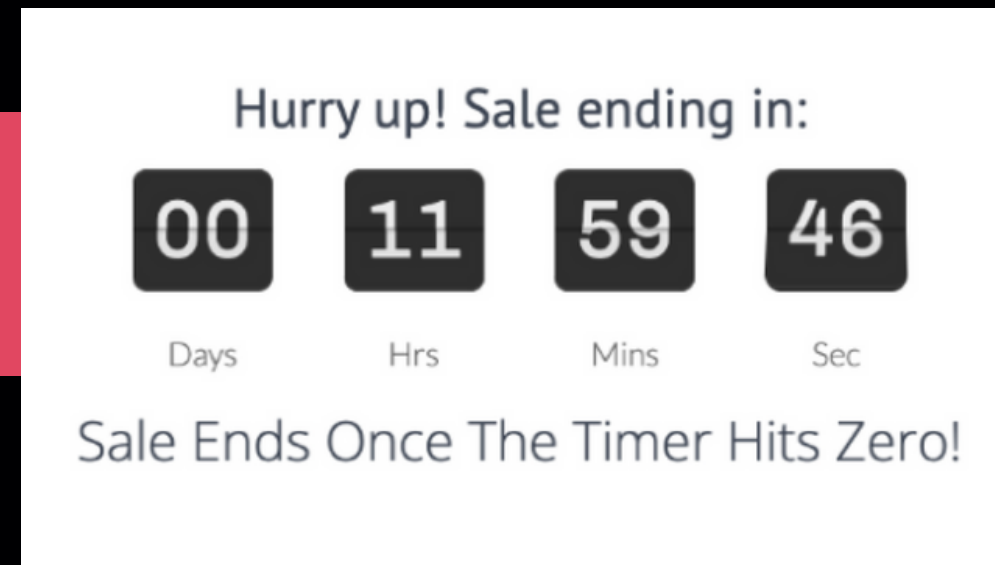
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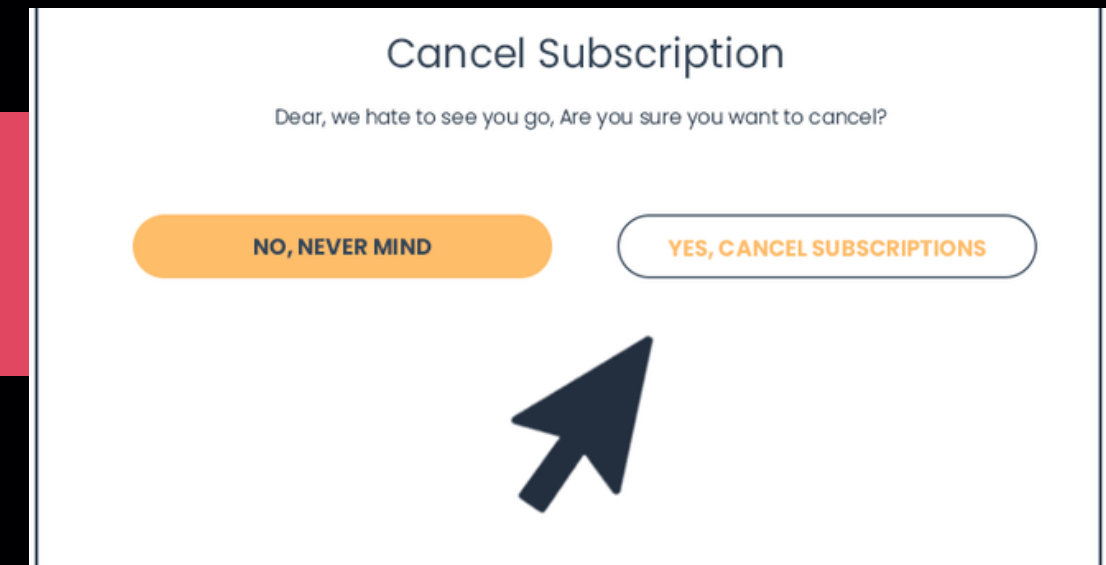
COMMON TYPES OF DARK PATTERNS



Confirm shaming



False Urgency



Subscription Trap

Checkout

Payment Method


Name on Credit Card

Credit Card Number

Expiration Date

Security Code

Order Details



Product	Total
Full Body Program	\$ 17.00
Convenience Fee	\$ 4.99
Tax	\$ 1.08
Total	\$ 23.07

Drip Pricing

Please Turn On Notifications

Know right away when people follow you or like and comment on your photos.

Not Now

OK

Nagging

TECHSTACK:

01

Frontend Development:

- HTML/CSS/JavaScript: These are the core technologies for building the extension's user interface and interactions.

02

Backend Development :

- Node.js (Express.js): This lightweight backend option can be used if you need a server for storing user data or patterns.
- Flask

03

Machine Learning and Pattern Detection:

NLP:

- nltk library
- text embeddings
- Word2Vec Model

ML:

- XGBoost
- sklearn

04

Browser Extension Development:

- Browser Extension API:
 - Chrome Extension API: For targeting Google Chrome.
- JavaScript (ES6+): The core scripting language for browser extensions.
- HTML: For creating the extension's popup interface.
- CSS: For styling the extension's UI.

05

Deployment:

- Chrome Web Store Developer Account: Required for deploying on the Chrome Web Store.
- Mozilla Add-ons Developer Account: Required for deploying on Firefox Add-ons.



Dark Pattern Detected!

Click on the flags to know more.

Close

Back to catalog

Loewe

Multicolor Leather Low-Top Sneakers

Low-top buffed leather sneakers colorblocked in navy, yellow, red, and white. Round toe. Lace-up closure in black. Perforated at sides. Logo embossed at outer side. Textured rubber sole in red. Tonal stitching.

Details

Shipping

Sizing

Returns

Color

Size

39

40

42

44

45

View size chart

\$148

Or \$158 with insurance.

Add to Basket without insurance

Add to Basket with insurance

Forced Continuity

FORCED CONTINUITY IS A DECEPTIVE DARK PATTERN WHERE USERS ARE INVOLUNTARILY ENROLLED IN SUBSCRIPTIONS OR SERVICES, LEADING TO UNEXPECTED CHARGES AND MAKING IT CHALLENGING TO CANCEL OR OPT-OUT. IT OFTEN INVOLVES UNCLEAR TERMS AND CAN RESULT IN UNINTENDED FINANCIAL COMMITMENTS FOR USERS.

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Louis Vuitton

Keepall 60 Mono Weekend/Travel Bag

23.6"L x 10.2"W x 12.9"H
Item #: 26194385

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Price: \$774.00 Shipping Included
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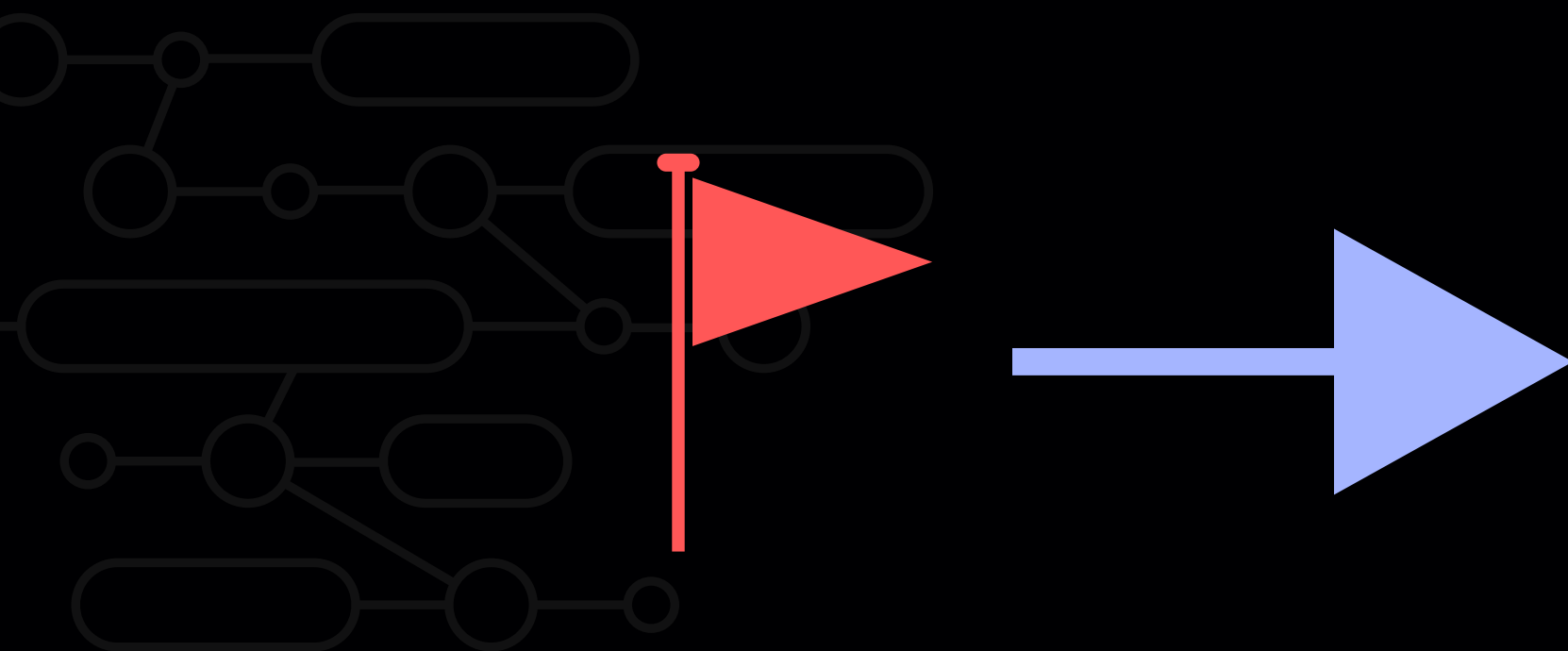
ADD TO BAG

 Save to Favorites

50 people saved this item

CONDITION

ON CLICKING THE
FLAG IT WILL
DISPLAY THE ENTIRE
INFORMATION
ABOUT THE DARK
PATTERN



Forced Continuity

FORCED CONTINUITY IS A DECEPTIVE DARK PATTERN WHERE USERS ARE INVOLUNTARILY ENROLLED IN SUBSCRIPTIONS OR SERVICES, LEADING TO UNEXPECTED CHARGES AND MAKING IT CHALLENGING TO CANCEL OR OPT-OUT. IT OFTEN INVOLVES UNCLEAR TERMS AND CAN RESULT IN UNINTENDED FINANCIAL COMMITMENTS FOR USERS.



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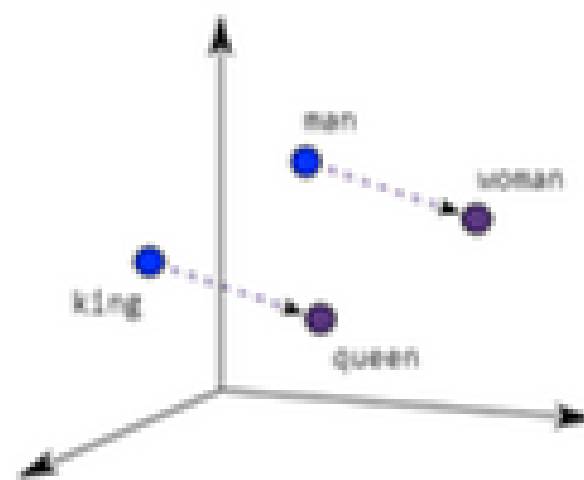
VISION & MISSION

Current Status: At the heart of our initiative is a robust Chrome extension that employs a dataset of **2356** dark pattern items to identify and highlight deceptive design elements on websites. The current accuracy of **89%** signifies a significant stride towards our goal. However, our commitment to user satisfaction and empowerment propels us to enhance the accuracy and expand our dataset to cover an even broader range of dark patterns.

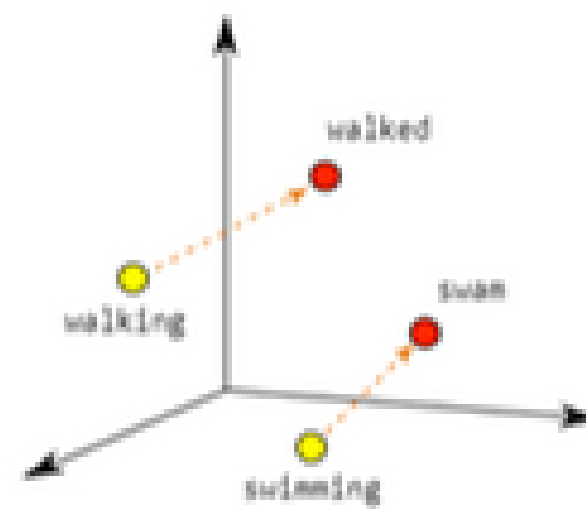
Vision

Our vision is to create an advanced Chrome extension that sets new standards in dark pattern detection. To achieve this, we are committed to increasing accuracy through the implementation of various strategies such as fine-tuning hyperparameters, ensemble learning, and continuous training. Simultaneously, we aim to enhance our dataset dynamically using a robust feedback mechanism, active learning techniques, natural language processing (NLP) for textual feedback analysis, and maintaining version control to track dataset evolution. By combining these approaches, our vision is to create an adaptive and user-friendly tool that not only stays at the forefront of accuracy but also evolves in real-time to identify emerging dark patterns.

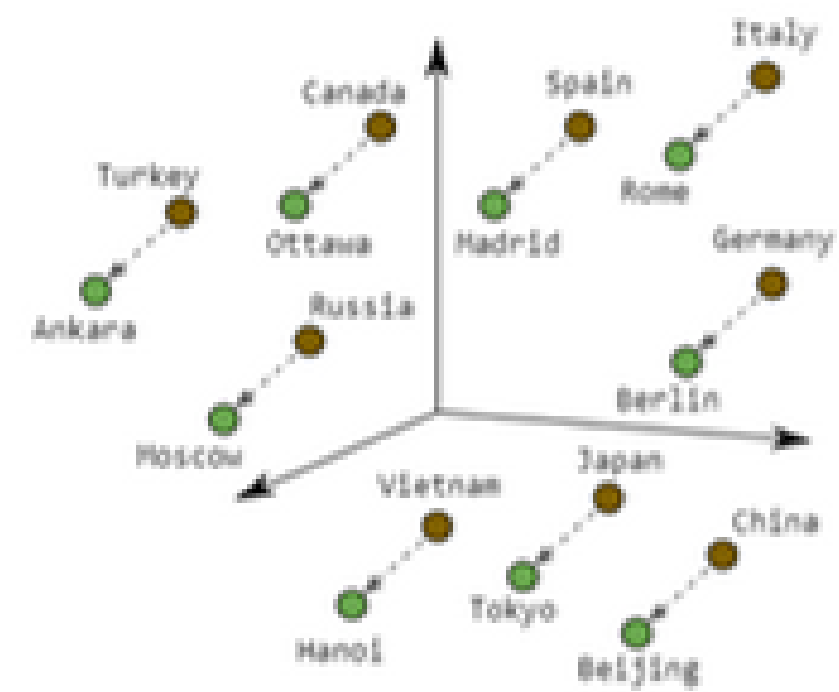
Word2Vec



Male-Female



Verb Tense



Country-Capital

Team Member Details:

Team Leader Name: Nitin Goel

Branch (Btech): Stream (ISE): Year (III):

Team Member 1 Name: Ishani

Branch (Btech): Stream (ISE): Year (III):

Team Member 2 Name: Tanishka Deep

Branch (Btech): Stream (AIML): Year (III):

Team Member 3 Name: Ishan Gupta

Branch (Btech): Stream (ETE): Year (III):

Team Member 4 Name: Prachi Gopsitkar

Branch (Btech): Stream (CSE): Year (III):



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THANK YOU