



The DARK PATTERNS Lesson



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1. Instructor Guide for Dark Patterns

Welcome to the instructor guide for Dark Patterns, where we have all our advice and suggestions as to how to deliver lectures on this topic. Our key belief in developing this content is that you know how best to deliver the important information; we can supply the content to you, but you will find the best way to teach it, in a manner than suits your teaching style. And because of that, we have designed the content to be as flexible as possible, with multiple sets of slides and documents that can be put together in multiple ways, depending on what suits you.

This current document provides a range of content, including a series of key outcomes for this lesson, and some details on the lecture notes and how they explore the key topics in this lesson. Following this a sample exam question and answer are provided as a suggestion as to how this lesson could be turned into part of an examination.

The next section looks at assessments, and clearly the type of assessment and the level of complexity will depend on the stage at which this content is being delivered at, as well as the other content that is being delivered at the same time. You are the lecturer who is delivering this content, so you are the expert at what the best way to assess the students, but included are some interesting alternatives as to what you could do. Additionally, some in-class activities are included that you can do in class, and take home.

Finally a glossary of terms is provided, as some students will benefit a great deal from a one-page glossary of key terms related to this lesson.

2. Learning Outcomes for Dark Patterns

On completion of this object, the learner will be able to:

- A. Demonstrate a clear understanding of the concepts and models associated with dark patterns.
- B. Critically assess and evaluate computer interfaces for potential dark patterns.
- C. Review and assess relevant literature, incorporating legislation, policy, directives, academic journals and industry standards.
- D. Relate concepts associated with ethics to the development and evaluation of dark patterns.
- E. Select and evaluate models of UX and psychological model that can be used to explain the effectiveness of dark patterns.
- F. Compare and contrast how different types of dark patterns use different psychological factors (Trust, Ignorance, Fear, Greed, Moral duty, Urgency, Panic, Anger) to succeed.

3. Assessment of Dark Patterns

There is a range of ways to assess this topic, and below are some suggested approaches for examination papers, for assessments, for in-class activities, and take-home activities.

3.1. Exam Questions

The below question can be used as a single question in an exam paper.

3.1.1. Sample Exam Question

This is out of 100 marks.

1 (a) What is meant by the term "Dark Patterns", providing a clear definition of your understanding of the term.	(20 marks)
1(b) Describe in detail two classic dark patterns, including the following sections: <ul style="list-style-type: none">• The title of pattern• An explanation of pattern• What key trick is this pattern using? E.g. Deception (things like ... hiding the opt-out button, or disguising the button, using fake email addresses), Laziness, Fear, etc.• Create a diagram of how the pattern is typically presented• What you think is <u>wrong</u> about this pattern, in other words, what is the ethics failure of the pattern?	(40 marks)
1(c) Redesign these two patterns to show how they could be more consistent and fair, and how they would overcome the ethical shortcomings of the dark pattern. Include a description and a diagram of the newly redesigned patterns.	(40 marks)

Potential Solutions:

1 (a) What is meant by the term "Dark Patterns", providing a clear definition of your understanding of the term.

Dark Patterns are user interfaces that are designed to trick users into spending more money or sharing more data than they have intended to do. It might also involve being tricked into installing a program that the user hadn't intended to.

User interface: 4 marks
Trick Users: 4 marks
Spending more money: 4 marks
Sharing more data: 4 marks
Installing programs: 4 marks

(20 marks)

1(b) Describe in detail two classic dark patterns, including the following sections:

- The title of pattern
- An explanation of pattern
- What key trick is this pattern using? E.g. Deception (things like ... hiding the opt-out button, or disguising the button, using fake email addresses), Laziness, Fear, etc.
- Create a diagram of how the pattern is typically presented
- What you think is wrong about this pattern, in other words, what is the ethics failure of the pattern?

20 marks per pattern
Title of Pattern: 2 marks
Explaining the pattern: 6 marks
Key trick: 3 marks
Diagram: 5 marks
Ethics Failure: 4 marks

(40 marks)

1(c) Redesign these two patterns to show how they could be more consistent and fair, and how they would overcome the ethical shortcomings of the dark pattern. Include a description and a diagram of the newly redesigned patterns.

(40 marks)

20 marks per pattern
Explaining the new pattern: 10 marks
Ethics Failure overcome: 5 marks
Diagram: 5 marks

(40 marks)

3.2. Continuous Assessments

3.2.1. Create an Infographic or Poster

Assignment #1. Dark Patterns Infographics

Create an infographic or poster based on dark patterns:

- It can be an overview of the entire discipline (must be detailed and pretty)
- It can be an infographic of a specific aspect of the discipline
- It can be an infographic of how ethics impact dark patterns.
- etc.

Accompanying this infographic is going to be a 3-4 page document of the following format (this is only approximate, you can write more if your want):

Page 1: Cover Page

Page 2: First half, introduction to what you did

Page 2-3: Second half of page 2 and all of page 3, description of how you created the infographic with rationale for all the elements present, both format and content.

Page 4: Conclusions, reflections and Recap on what you did.

Some sample infographics tools:

1. [Canva](#)
2. [Venngage](#)
3. [Piktochart](#)
4. [easel.ly](#)
5. [Visme](#)
6. [Infogram](#)
7. [Vizualize.me](#)
8. [Snappa](#)
9. [Animaker](#)
10. [BeFunky](#)

3.2.2. Create a Research Paper

Assignment #1. Dark Patterns Research Paper

The goal of the assignment is to write a paper about dark patterns, it should be made up of two main parts, a literature review section, and experiment section (with a conclusion and references).

The Literature Review Section

This section must explore at least three papers on the topic of Dark Patterns, one of which must be the Gray, *et al.* (2018) seminal paper:

Gray, C.M., Kou, Y., Battles, B., Hoggatt, J. and Toombs, A.L., 2018, April. The dark (patterns) side of UX design. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems* (pp. 1-14).

For each paper, provide a 300-400 word summary of the paper, including an introduction to the paper, a description of the experiment in the paper, and mention some of the key conclusions of the paper. Select one diagram from the paper to include in your review.

The Experiment Section

This section will document your own exploration of a site that uses a dark pattern (or dark patterns), including screengrabs and a description of the context and implementation of the dark patterns.

Conclusions Section

This section will be 300-500 word conclusion of the paper.

References

All references in Harvard format.

A rubric is included below.

Research Paper Rubric

	First Paper Reviewed	Second Paper Reviewed	Third Paper Reviewed	Student Experiment	Student Reflections
	20%	20%	20%	30%	10%
Excellent Submission	Summarizes all key points of the paper.	Summarizes all key points of the paper.	Summarizes all key points of the paper.	Well-thought out activity, and well executed	Demonstrates coherent and critical thinking on assignment.
Very Good Submission	Summarizes most of the key points of the paper.	Summarizes most of the key points of the paper.	Summarizes most of the key points of the paper.	Well-thought out activity, and OK execution	Demonstrates some critical thinking on assignment.
Good Submission	Summarizes some of the key points of the paper.	Summarizes some of the key points of the paper.	Summarizes some of the key points of the paper.	Well-thought out activity, and OK execution	Mainly describes actions with some small reflection.
OK Submission	Summarizes a few of the key points of the paper.	Summarizes a few of the key points of the paper.	Summarizes a few of the key points of the paper.	Well-thought out activity, and OK execution	Just describes activities undertaken to complete assignment.
Weak Submission	Wrongly summarizes points of the paper.	Wrongly summarizes points of the paper.	Wrongly summarizes points of the paper.	Poorly thought out activity, and OK execution	Poor or no description of activities undertaken to complete assignment.

3.2.3. Create an Ethics Essay

Assignment #1. Dark Patterns Ethics

Write an essay on the ethics of dark patterns. This will involve a bit of reading and research on your behalf, looking at research papers, and other content online like newspaper articles or UX, and websites concerning ethics and dark patterns.

An essay usually has three parts:

1. **Introduction:** An overview of the essay highlighting the key arguments
2. **Main Body:** Addressing the key issues and arguments, review your key readings, and critique them, and present your arguments, and critique yourself.
3. **Conclusions:** Your conclusions about this whole area.

The typical structure of an argument is:

1. **Claim,** Outline the main claim you are making, sometimes called the overall thesis
2. **Grounds,** Describe the evidence and facts that support your claim, best evidence first
3. **Bridge,** Explain and underscore how the Grounds supports your Claim
4. **Backing,** Add any additional logic or reasoning that support the Bridge
5. **Counterclaim,** Discuss the alternative perspectives that oppose your thesis
6. **Rebuttal,** Identify the weaknesses in the Counterclaim and present evidence that refutes it.

As part of the process of writing this essay you will have to draft and redraft this essay as part of this process, and it will help you in developing a formal, academic "voice"

3.2.4. Create an Interview

Assignment #1. Dark Patterns Interviews

Document an interview with someone who has been a victim of dark patterns (this is basically anyone who has ever purchased anything online). To help the person know what a dark pattern is, write a 500-700 description of dark patterns, including some key examples (include this summary as part of your submission).

For the main interview, ask the following questions, but feel free to put them in your own words:

1. Describe what you were doing when this occurred.
2. When did you discover you had been tricked?
3. How did it make you feel?
4. Were you able to do anything about it?
5. Did it make you change your online behavior afterwards?
6. Do you think there should be laws stopping companies doing this?

Write a 500-700 word reflection piece on the interview answers.

Marking Scheme

Dark Patterns summary – 20%

Interview Questions – 6 * 10%

Reflections – 20%

3.2.5. Create a set of Bright Patterns

Assignment #1. Bright Patterns

Create two Bright Patterns, where a "bright pattern" is a design that is very clear and explicit, and is the opposite of a dark pattern. For each bright pattern, include the following sections:

- The title of pattern
- An explanation of pattern
- What tactics does this pattern use to help the user understand how to use the interface?
- Create a diagram of how the pattern is typically presented
- Why is this pattern a good idea?

3.2.6. Dark Pattern Detection Plug-In

Assignment #1. Build a Browser Plug-In

Selecting the browser of your choice, build a plug-in that will detect at least two dark patterns, and highlight them in some way (e.g. colour them differently, Overlay big red arrows pointing to the area of concern, how a pop-up explaining the pattern).

Include in your submission:

- For each dark pattern we reviewed, in one sentence each explain why you think it either would be easy or difficult to detect this dark pattern in an automated way.
- Picking two or more patterns, outline in 100-200 words you would automatically detect these patterns in code
- The code you developed
- 5 screengrabs of the plug-in in action
- A 300-400 words reflection piece

3.3. In-Class Activities

3.3.1. The Worst Pattern

This activity works best for classes with more than 20 students.

Reviewing the patterns you have discussed in class, get the students to select which one they think is the most unethical, and you can ask everyone to call out the number of their choice, and count which ones get the more votes, and which don't.

What is interesting is to see how different people define "unethical", some might see it as which has the worst impact on the user, others might see it as the one that is most concealed, others as the one the is most technically complex, others might see it as the one that breaches UX principles, etc.

3.3.2. Rate the Patterns

This activity works best for classes with less than 20 students.

Get the students to rate the patterns on a scale of 1 – 12 from least unethical to most unethical. Once they have settled on their ordering, compare their answers to a classmate.

What is interesting is to see how different people define "unethical", some might see it as which has the worst impact on the user, others might see it as the one that is most concealed, others as the one the is most technically complex, others might see it as the one that breaches UX principles, etc.

3.3.3. Discussion Cards

Below are a series of cards that you can print out and use in the classroom in a variety of ways. You may wish to divide the class into groups, and have each group work on the same discussion card; or have each group work on different cards.

<p><u>Discussion Card</u></p> <p><i>Dark Patterns are bad.</i></p>	<p><u>Discussion Card</u></p> <p><i>If I was asked to write an interface with a dark pattern, I wouldn't do it, even for €1 million.</i></p>
<p><u>Discussion Card</u></p> <p><i>It's the users' own fault if they fall victim to a dark pattern.</i></p>	<p><u>Discussion Card</u></p> <p><i>I rarely read everything when interacting with a site and have been caught out by the interface.</i></p>
<p><u>Discussion Card</u></p> <p><i>Some Dark Patterns are worse than others.</i></p>	<p><u>Discussion Card</u></p> <p><i>Some organisations have plausible explanations why they have interfaces that use dark patterns.</i></p>

3.3.4. Bringing it all together

Towards the end of the lecture, ask each of the students to write for one minute about a specific question, it could be something general like "what was the most important thing you have learned today", or something more specific like "Dark Patterns are ...". Then put the students in groups, and get them to share their answers with each other, and finally appoint a leader in each group to share the range of views from their members with everyone else in the class.

3.4. Take-Home Activities

3.4.1. Paying Attention

Tell the students that for the next week, each time they are on-line interacting with websites, to note any time they encounter any of the below patterns, and note the link, do a screengrab, and write a 50-word description.

4. Glossary of Terms

Bait & Switch, a design pattern where the user sets out to do one thing, but a different, undesirable thing happens instead.

Confirmshaming, a design pattern where the user is guilted into opting-in to something. The option to decline is worded in such a way as to shame the user into compliance.

Dark Pattern, user interfaces that are designed to trick users into spending more money or sharing more data than they have intended to do. It might also involve being tricked into installing a program that the user hadn't intended to.

Disguised Ads, a design pattern where advertisements are disguised as other kinds of content or navigation, in order to get users to click on them.

Forced Continuity, a design pattern where a user is given a free trial with a service, and when it comes to an end their credit card starts getting charged without any warning.

Friend Spam, a design pattern where a user shares their email or social media permissions, and their contacts are spammed with messages from the user.

HCI, Human-Computer Interface, it is the study of the design and use of computer technology, focused on the interfaces between users and computers.

Hidden Costs, a design pattern where the user gets to the last step of the checkout process, and discovers some unexpected charges have been added.

Misdirection, a design pattern where the design purposefully focuses the user's attention on one thing in order to distract their attention from another.

Privacy Zuckering, a design pattern where a user is tricked into publicly sharing more information about themselves than they had intended to. Named by Tim Jones as a homage to Facebook CEO Mark Zuckerberg.

Roach Motel, a design pattern where the design tries to sneak a subscription to a magazine via a trick question.

Sneak into Basket, a design pattern where a user attempts to purchase something, but somewhere in the purchasing journey the site sneaks an additional item into the basket, often through the use of an opt-out radio button or checkbox on a prior page.

Trick Questions, a design pattern that is typically when a series of checkboxes is shown, and the meaning checkboxes is alternated so that ticking the first one means "opt out" and the second means "opt in".

UI, User Interface, this can be formally defined as the space where interactions between humans and machines occur.