



A Web of Anxiety

Developments in accessibility for people with anxiety and panic disorders



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Photo by Jene Yeo on [Unsplash](#)

Hurry, only 2 tickets left!

02:00

Booked 83 times in
the last 24 hours

03:00

Book now as 6 other
people are viewing
this hotel!

You will be logged out
automatically in 60
seconds

04:00

05:00

What are anxiety and panic disorders?

- A range of mental illnesses, characterised by excessive feelings of fear, apprehension, and dread
 - Social anxiety disorder: intense fear of being embarrassed, humiliated, or judged negatively by others in a social or work setting
 - Claustrophobia: fear of confined spaces
 - Agoraphobia: fear of being in a situation that would be difficult to escape from
 - Health anxiety: preoccupation with the idea that you have (or will have) a physical illness
- Panic disorders: sudden, frequent, and intense feelings of panic or fear, sometimes for no clear reason



ANXIETY FOR BEGINNERS

A PERSONAL INVESTIGATION

Eleanor Morgan

"If someone tells you they never experience anxiety, they're either a) lying or b) a sociopath. Really."

A web of anxiety: accessibility for people with anxiety and panic disorders [Part 1]

David Swallow | August 14, 2018 | [Development](#), [User Experience \(UX\)](#)

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Anyone booking a vacation has likely encountered persuasive notifications urging them to "Hurry, only 2 tickets left!" or to "Book now as 6 other people are viewing this hotel".



Best Western York ****

York - Show on map (1.6 miles from centre)
2 people are looking at this moment
In high demand! Booked 7 times in the last 24 hours
Great Value Today

Double Room
Only 1 room left on our site!
Risk free: You can cancel later, so lock in this great price today.

We've all fumbled to enter our credit-card details as an ominous timer counts down the number of minutes remaining to complete our transaction. The web is awash with the manner of so-called [dark patterns](#), designed to convert visitors and part with their money. While such intrusions can be a source of irritation and stress for many people, they may be complete showstoppers for people with anxiety or panic disorders.

Anxiety disorders comprise a range of mental illnesses that are characterized by excessive feelings of fear, apprehension, and dread. For example, [so](#)phobia is the fear of

A web of anxiety: accessibility for people with anxiety and panic disorders [Part 2]

David Swallow | November 7, 2018 | [Development](#), [User Experience \(UX\)](#)

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"Unethical", "misleading" and "exploitative" are the words used by the Norwegian Consumer Council to describe the use of dark patterns and privacy-intrusive default settings by Facebook, Google and Microsoft. The council's report, titled [Deceived by Design](#) (PDF, 3.2MB), documents the "deceptive" and "manipulative" techniques that companies use to nudge users towards disclosing as much information as possible.

Yet despite protestations and renewed commitments to data privacy from the companies named in the report, nefarious design practices are unlikely to go away. [Dark patterns \(at least in the short term\) are simply too profitable](#). The truth is: many companies care little about how anxious or stressed their websites make you feel. In fact, [companies may well](#)...

A screenshot of a website's footer or sidebar. It features a blue circular icon with a white arrow pointing up and to the right. To its right, the text reads: "Tell us if you don't want to hear from us. If you would prefer NOT to receive communications about our products and promotions, please indicate below. You can always tell us if you change your mind." Below this is a form with two input fields: one for "Email" and one for "Post".



Urgency

Flights

Flight + Hotel

Ontario > Toronto > Search results

Property name:

Check-in date, October 17, 2022

Check-out date, October 18, 2022

Guests: 1 adult · 0 children · 1 room

Entire homes & apartments

Traveling for work

Search

Filter by:

Net (per night)

82% of places to stay are unavailable for your dates on our site.

Show on map

Toronto: 63 properties found

Sort by: Our Top Picks

Commission paid and other benefits may affect an accommodation's ranking. Learn more.

Residence Inn by Marriott Toronto
Downtown / Entertainment District ★★★

Downtown Toronto, Toronto · Show on map · 0.7 miles from center

Very Good 1,250 reviews 8.2

1 night, 2 adults £547

Includes taxes and fees

See availability >

King Studio with Sofa Bed
Private studio · 1 kitchen · 42m²
2 beds (1 king, 1 sofa bed)

Breakfast included
Only 5 left at this price on our site

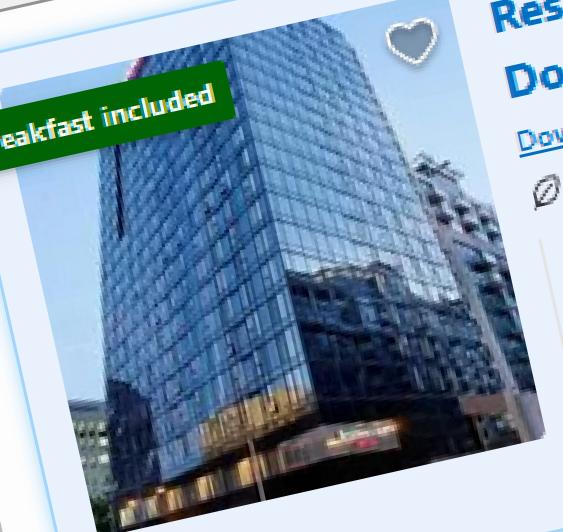
Chelsea Hotel Toronto ★★

Downtown Toronto, Toronto · Show on map · 0.5 miles from center

Good 4,466 reviews 7.1

1 night, 2 adults £338

Includes taxes and fees







Unpredictability



David Swallow

21 JUNE 2018 AT THE TOR, GLASTONBURY

Sarah Swallow

**“I didn’t mean to
‘like’ it, but will I
look weird or
like a stalker if I
leave it? Or will I
look rude if I
remove it? ...
I find Instagram
immensely
stressful.”**



Liked by cheeko1980 and 13 others

davidofyork Climbing the Tor.

27 JUNE 2018

A prime example...

No thanks, I don't want any benefits

**Yes please!
SIGN ME UP!**



Powerlessness

“Ads on YouTube are probably the worst offenders for me, especially suddenly being randomly assaulted by them at intervals throughout an interesting video.

I find ads that seem to be forced on us against our will a kind of invasion of our personal space”

Video will play
after ad

Are you sure you want to deactivate your account?

Deactivating your account will disable your profile and remove your name and picture from anything you've shared.

Pat will miss you



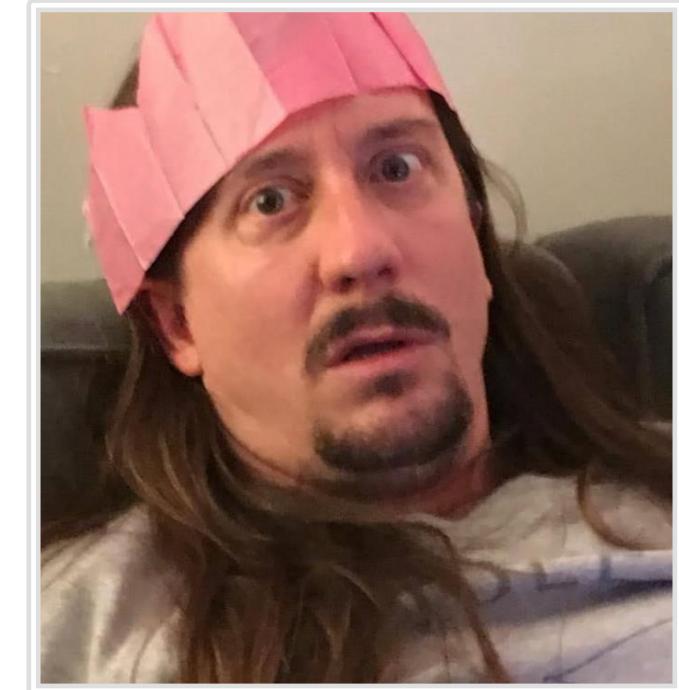
[Send Pat a Message](#)

Steve will miss you



[Send Steve a Message](#)

Jonny will miss you



[Send Jonny a Message](#)



Sensationalism

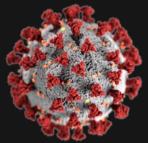
“I hate reading a cute news story about dogs and then randomly get slapped with a link to an article entitled ‘Putin threatens to nuke’. This is one of the main ways that I accidentally stumble across events which trigger my anxiety in recent times.”



“That’s how these websites operate. They know that anxious people find it hard to resist anxiety triggers such as ‘Breaking News’. More often than not, Breaking News is pretty routine news anyway. It used to be called ‘News’. Now everything is sensationalised for dramatic effect.”

Image by Freepik

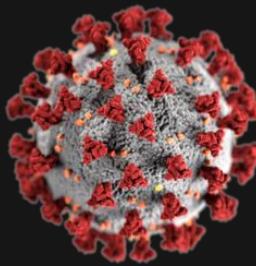
**RED WINE
CAUSES
CANCER**



Are men being
'nagged to death'?

You don't snooze,
you lose: poor sleep
linked to death

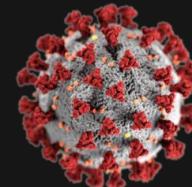
Stress really DOES
turn your hair grey!



**RED WINE
PREVENTS
CANCER**

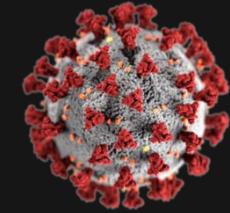
Can house dust
make you fat?

5 flu symptoms you
should NEVER ignore



Does Tetris beat trauma?

Lavender scent may
help with anxiety



**CHILLAX
ON HOL IS
'DEADLY'**



Tackling tension

The Cycle of Anxiety

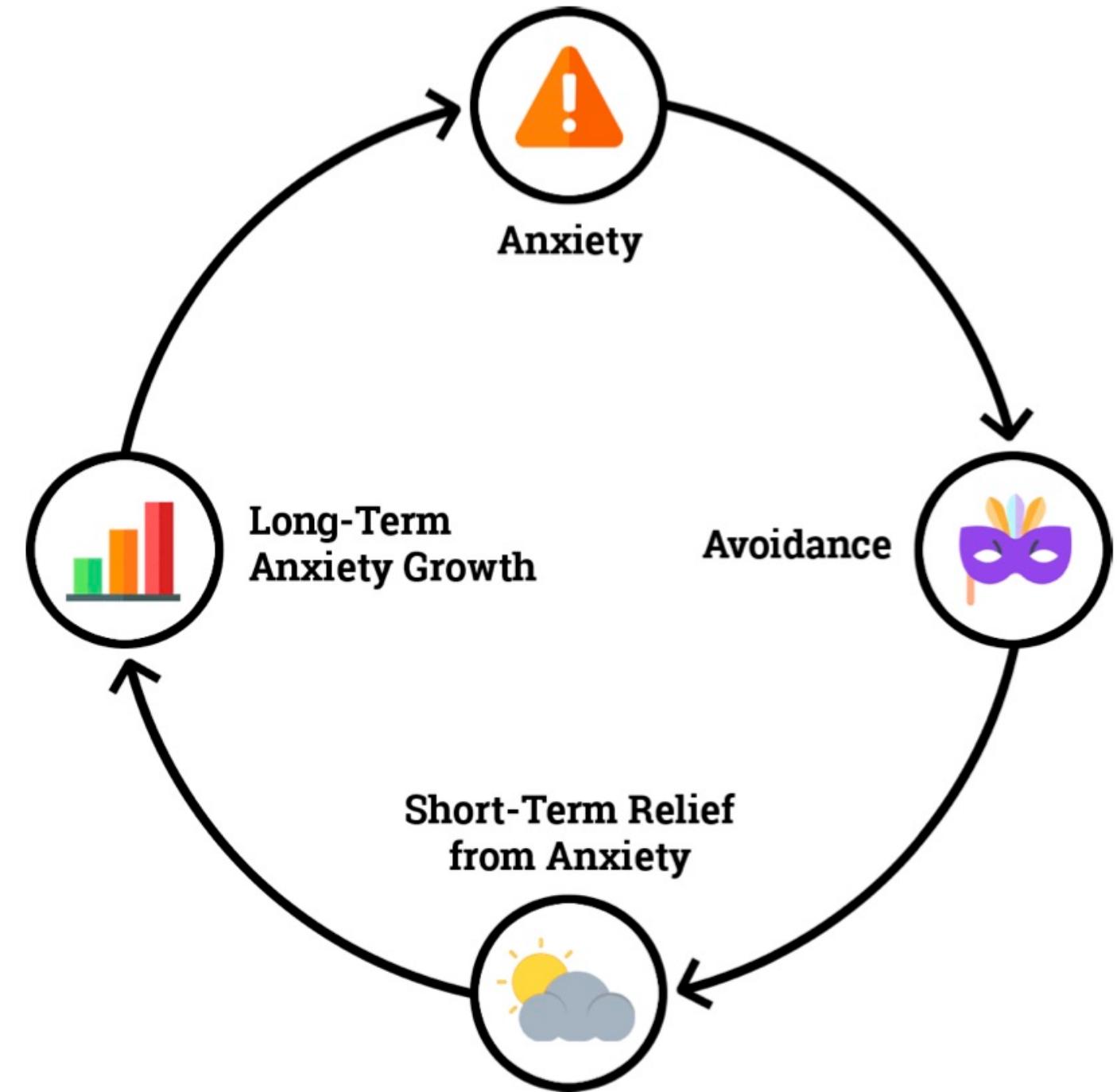


Image source:

<https://www.therapistaid.com/worksheets/cycle-of-anxiety>

DECEPTIVE DESIGN

Hall of shame

[All](#)[Google](#)[Facebook](#)[Amazon](#)[Linkedin](#)[Microsoft](#)[Apple](#)[Everything else](#)

Luton airport, after prepaying for parking

Luton airport website shows a disguised ad. It appears to be a "continue" button leading on from the checkout, but in fact tricks users into subscribing to a totally unrelated service.

[Luton airport](#) | Socially Distant David | Aug 21, 2022

Skype tricks users into uploading their address book - via a dialog box that has no visible option to refuse.

Noticed my Skype client on the iPad started doing this sneaky crap where when you open the app it presents a prompt that asks you to approve sharing all your contacts w/ Skype. And there's no visible way to say "no."

[Skype](#) | briankrebs | Aug 21, 2022

Nice dark pattern @treatwelln! That didn't work.

Treatwell uses trick questions - alternating sentiment for its checkbox labels - to trick users into

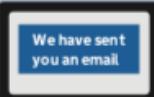
Designing for users with anxiety

Do...

give users enough time to complete an action



explain what will happen after completing a



Don't...

rush users or set impractical time limits



leave users confused about next steps or



Anxiety-related resources

- Web Content Accessibility Guidelines 2.1 by the W3C www.w3.org/TR/WCAG21/
- Inclusive Design Principles inclusivedesignprinciples.org
- Designing for users with anxiety by the UK Home Office accessibility.blog.gov.uk/2016/09/02/dos-and-donts-on-designing-for-accessibility/

COGA Task Force

<https://www.w3.org/TR/coga-usability>

Cognitive Accessibility Guidance

This guidance provides advice on how to better meet the accessibility needs of people with cognitive and learning disabilities. The guidance listed below is grouped under "Objectives" and provided in "Design Patterns".

+ Expand All Sections | - Collapse All Sections

- + Help Users Understand What Things are and How to Use Them
- + Help Users Find What They Need
- + Use Clear and Understandable Content
- + Help Users Avoid Mistakes and Know How to Correct Them
- + Help Users Focus
- + Ensure Processes Do Not Rely on Memory
- + Provide Help and Support

Working Group Note
This version: <https://www.w3.org/TR/2021/NOTE-coga-usable-20210429/>
Version: <https://www.w3.org/TR/coga-usable/>
<https://www.w3.org/TR/2020/WD-coga-usable-20201211/>
Z (Invited expert)
J. Montgomery (Invited expert)

<https://www.w3.org/Issues/new>
<https://www.w3.org/archives>

as [multiple pages](#), with separate pages for each section.

Keio, Beihang). W3C [liability](#), [trademark](#) and [permissive document license](#) rules apply.

ake web content (web pages) and web applications. It gives advice on how with [cognitive and learning disabilities](#). This includes, but is not limited to: disabilities (LD), [neurodiversity](#), intellectual disabilities, and specific learning disabilities, ent,





Welcome

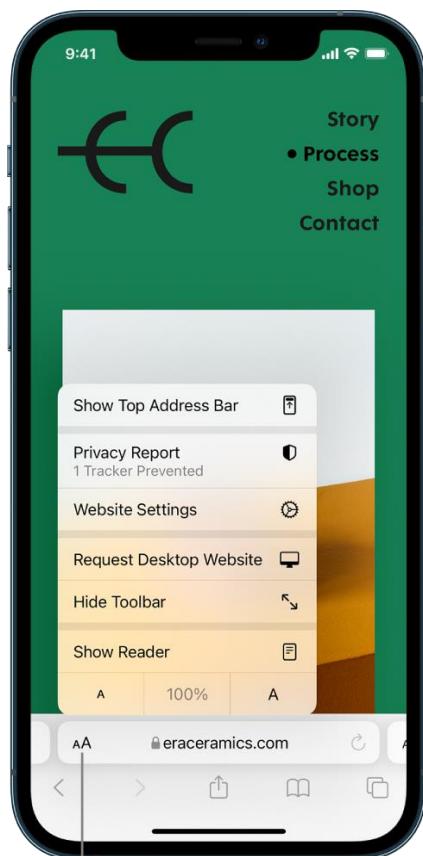
The Mental Health Patterns Library is a resource for those involved in developing and delivering digital mental health support. It's designed to encourage learning and the sharing of best practice.



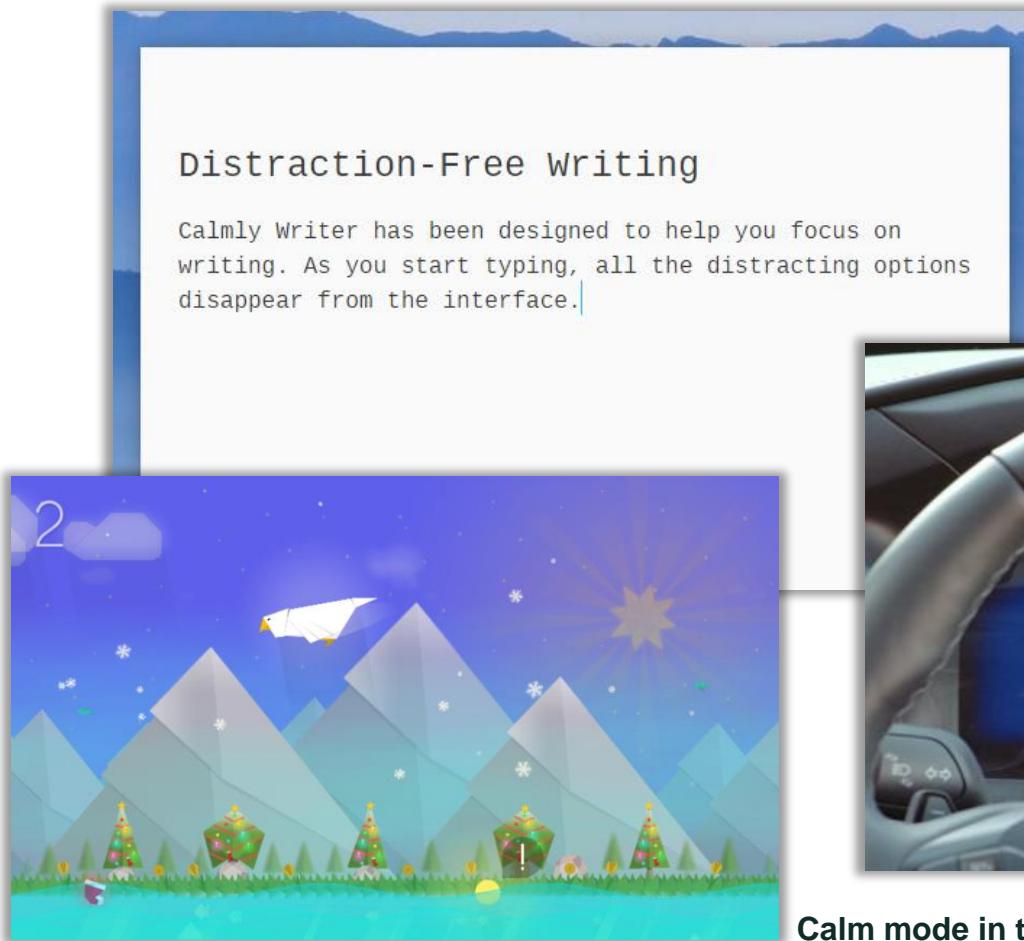
[Browse principles](#)

<https://designpatternsformentalhealth.org>

prefers-reduced-anxiety ?



| Tap to view the page in Reader.



Calmly Writer



Calm mode in the Ford Explorer

Calm mode in the game, Paper Wings



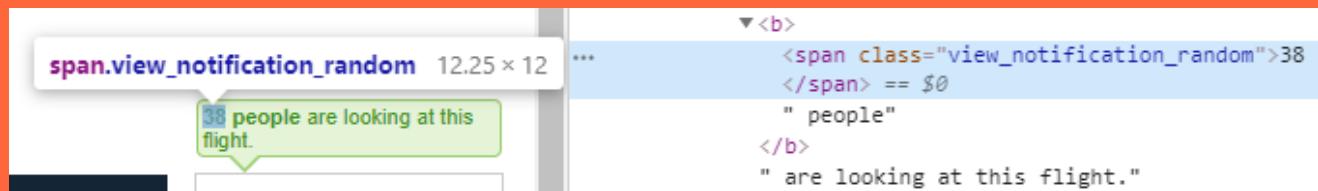
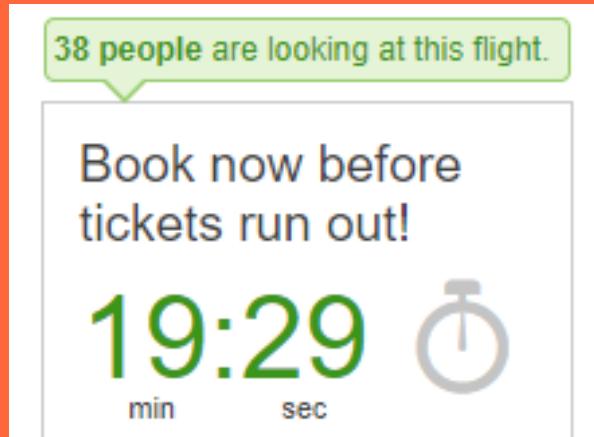
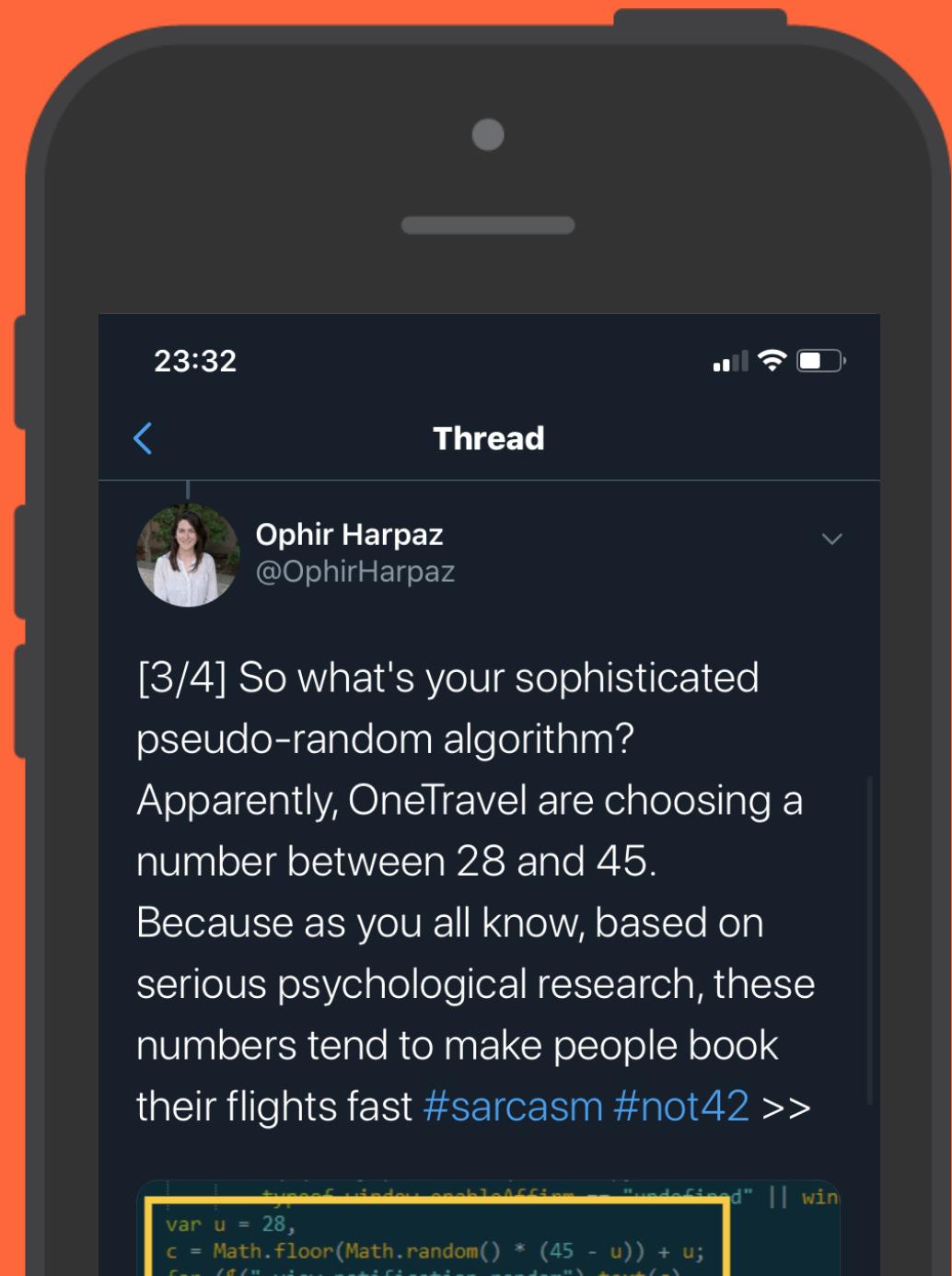
Image by PNGITEM

The trouble with regulation...

- New deceptive patterns are being developed all the time
- Defining deceptive patterns...
 - too *precisely* → legislation becomes outdated
 - too *loosely* → legislation is circumvented
- Also a risk of banning potentially *useful* patterns



38 people are looking at this flight – or are they?



```
typeof window.enableAFCI === "undefined" || win
var u = 28,
c = Math.floor(Math.random() * (45 - u)) + u;
$(".view_notification_random").text(c);
$(".payment_page_error_inner").find("validation-s
    typeof IsCCNAndTFNMasking != "undefined" && IsCC
        f != "" && $("#PaymentList_1_CardNumber").v
        $(".flight-details-link").length > 0 && enableShowFl
```

Treating Customers Fairly



- Principle-based approach to regulation by the UK Financial Services Authority (FCA)
- Businesses are also obliged to treat customers fairly to comply with the FCA's regulations
- All firms must be able to show consistently that fair treatment of customers is at the heart of their business model
- Firms that fail to treat customers fairly can receive large financial penalties from the FCA and suffer reputational damage

How to make the web a less stressful place

- Do nothing and encourage users to confront their fears?
- Follow established accessibility resources to create less stressful experiences
- Tackle deceptive patterns on a case-by-case basis through browser extensions and plug-ins
- Outlaw the most egregious examples of anxiety-inducing patterns through tightly-defined laws
- Encourage companies to behave ethically and treat users fairly and with respect

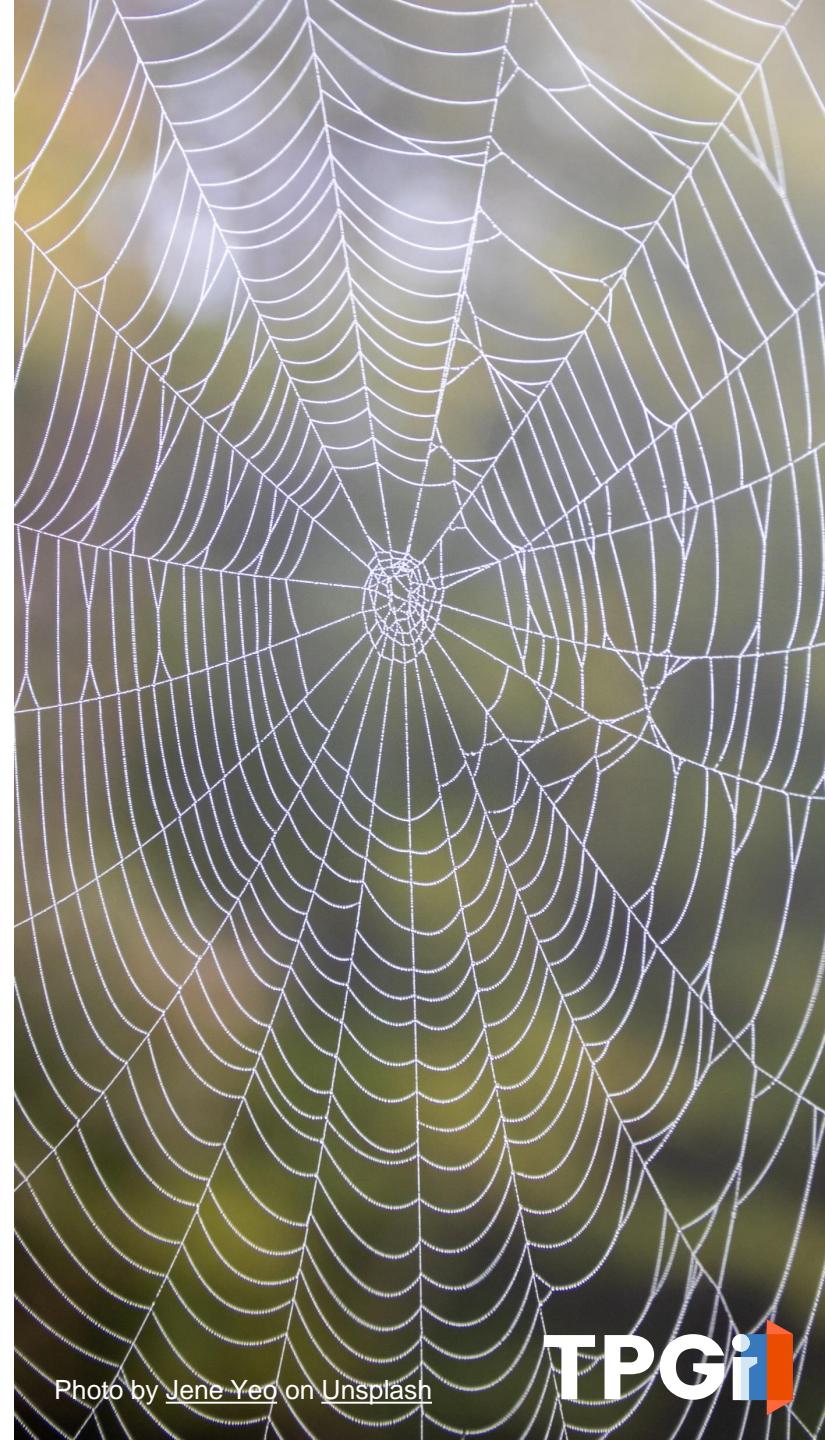


Photo by Jene Yeo on Unsplash



Thanks
for listening!



Photo by Jene Yeo on [Unsplash](#)