GOTO
Guide

LET US HELP YOU

Ask questions through **the app**

★★★★★

also remember to rate session

THANK YOU!

#GOTOams

White-hat attention jacking for accessibility, fun and profit

Chris Atherton

Andy Budd
@andybudd

A typical website visit in 2022

1. Figure out how to decline all but essential cookies
2. Close the support widget asking if I need help
3. Stop the auto-playing video
4. Close the “subscribe to our newsletter” pop-up
5. Try and remember why I came here in the first place

2:35 p.m. · 2. jan. 2022 · Twitter Web App

Our attention is being hijacked

We can’t avoid it happening to us, because brains

But maybe we can learn from it?

SLEVIN'S

You, just doing your thing
Your attention

Learn how to pay attention

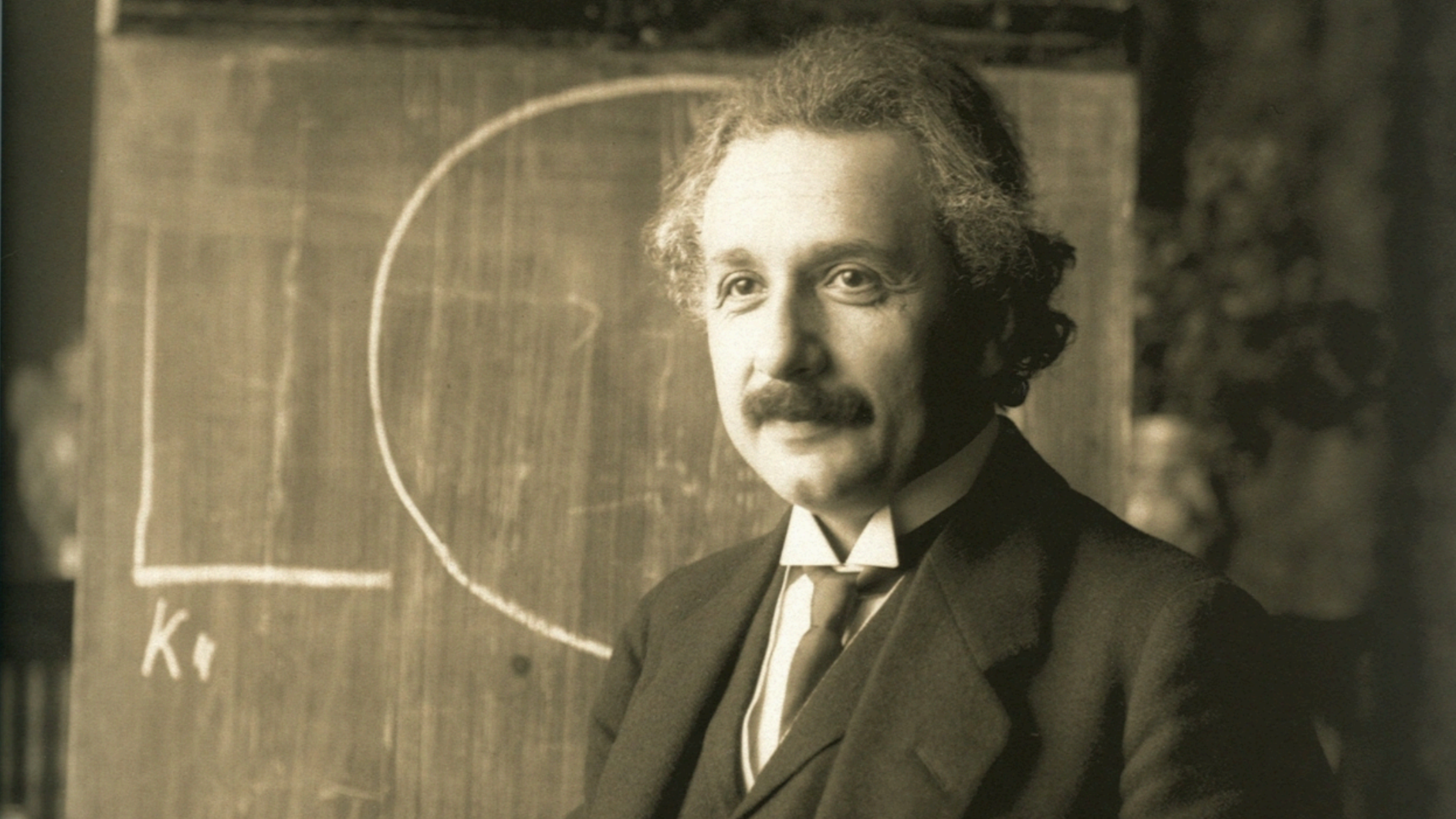
to where your attention goes

1. Working memory
2. Cognitive load
3. Attention

1. Working memory

(~ short-term memory)

How much new information you can hold in your head


K

Working memory

Ooh, strawberries!

Everything else

«Magic number 7, +/- 2»

— Miller, 1956

Yeah, about that …

«Magic number 4, +/- 2»

— Cowan, 2001

Sorry, but

It depends

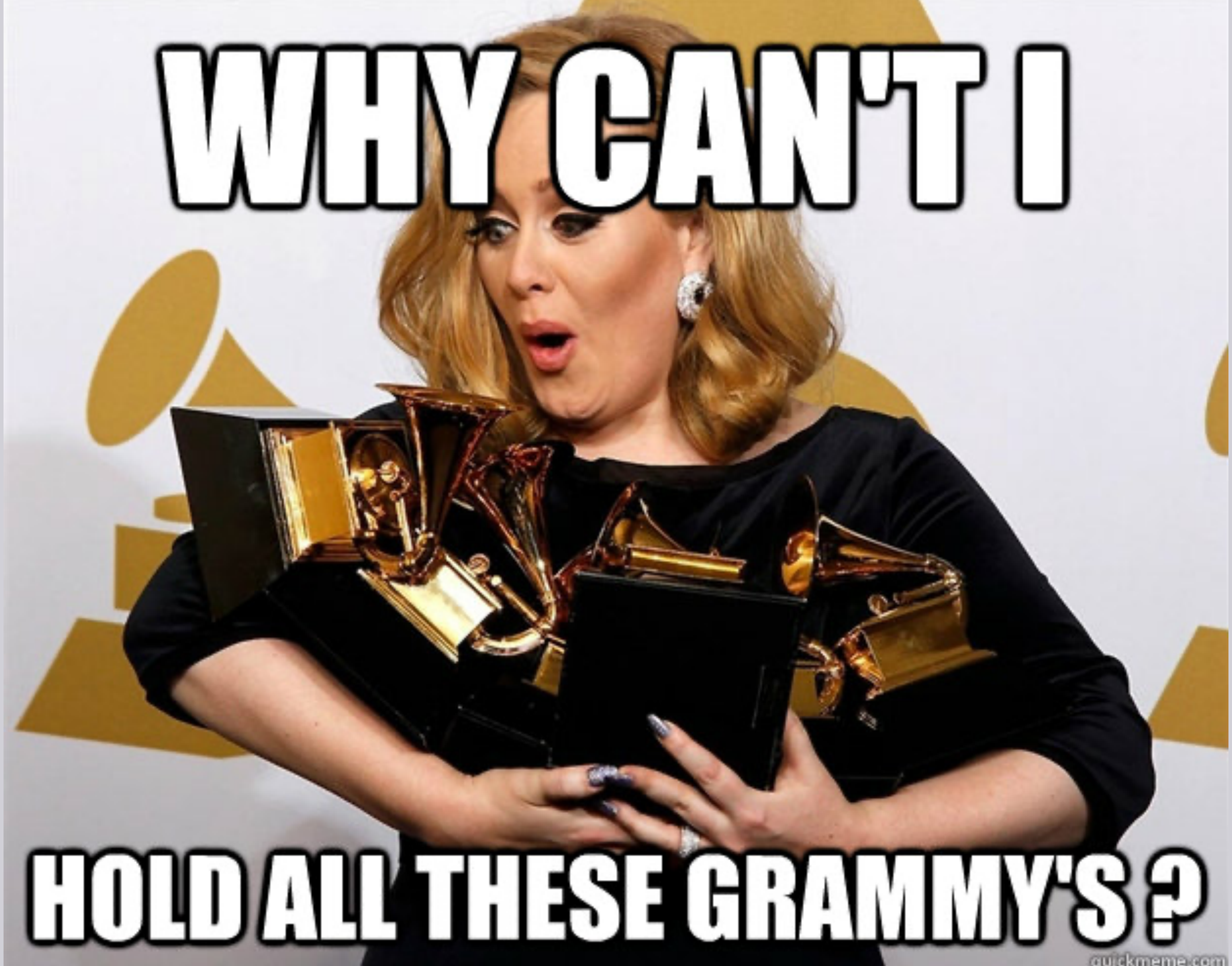
— Reality, ongoing

Everybody agrees

the sieve is small

H1 A list of things

Oranges
Apples
Trees
Xylophones
Violins
Pianos
Flutes
Bread
Cheese
Muffins
Butter
Turnips
Tomatoes
Mice
Cats


WHY CAN'T I
HOLD ALL THESE GRAMMY'S ?
quickmeme.com

H1 # A list of things

Oranges
Apples
Trees
Xylophones
Violins
Pianos
Flutes
Bread
Cheese
Muffins
Butter
Turnips
Tomatoes
Mice
Cats

Vis fanelinje
Vis alle faner

Inspektør

✓ Navigering
Kun lysbilde
Lysbord ⇧⌘L
Disposisjon

Rediger lysbildelayouter ⇧⌘E
Vis presentatørnotater ⇧⌘P
Vis objektliste ⌥⌘L

Vis linjaler ⌘R
Hjelpelinjer

Kommentarer

Skjul samarbeidsaktivitet

Vis ordningsverktøy
Vis byggrekkefølge
Skjul farger ⇧⌘C
Vis bildejustering
Vis medienavigering
Vis forhåndsvisning av direktesendt video

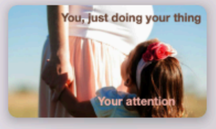
Zoom

Vis advarsler
Vis synkroniseringsstatus

7
8 You, just doing your thing / Your attention
9 Learn how to pay attention to where your attention goes
10 1. Working memory 2. Cognitive load 3. Attention 4. Emptying the stack
11 1. Working memory (= short-term memory)
12 How much new information you can hold in your head
13
14 Working memory / Ooh, strawberries! / Everything else
15 «Magic number 7, +/- 2»
16 Yeah, about that ... «Magic number 4, +/- 2»
Sorry, but It depends

7

8



9

Learn how to pay attention
to where your attention goes

10

1. Working memory
2. Cognitive load
3. Attention
4. Emptying the stack

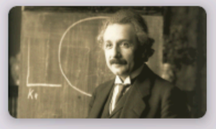
11

1. Working memory
(= short-term memory)

12

How much new information
you can hold in your head

13



14

15

«Magic number 7, +/- 2»

16

Yeah, about that ...

«Magic number 4, +/- 2»

Sorry, but

It depends

2. Cognitive load

We talk about reducing cognitive load for teams

I think a lot about reducing cognitive load for users

Cognitive load is ALL about working memory

(Almost) everything costs working memory

Complex information costs more

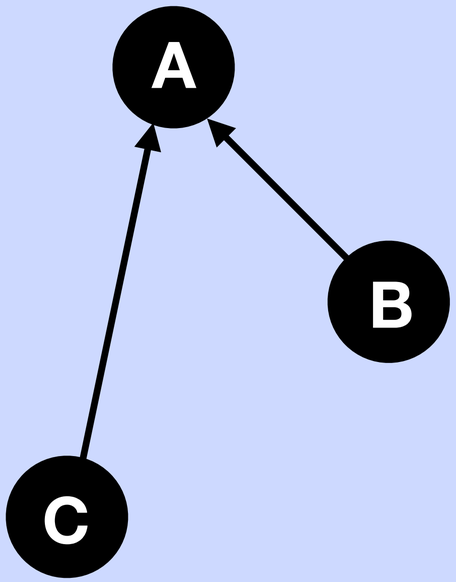
Simple information:

Describe a web page

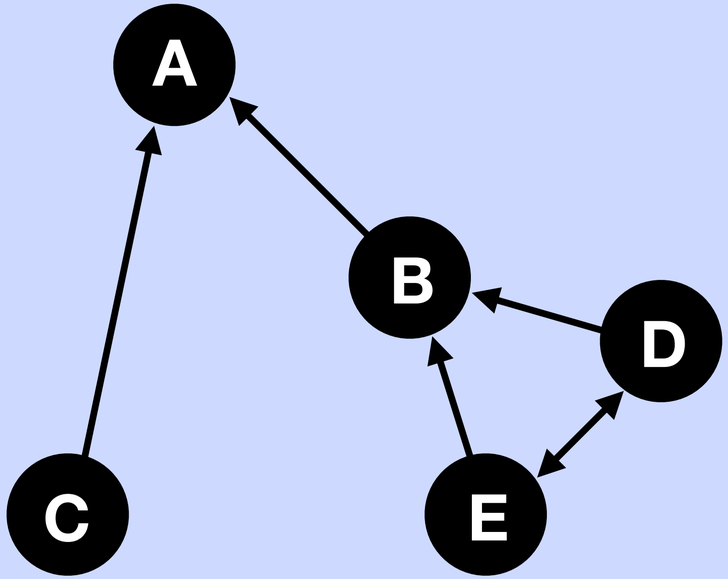
Complex information:

Describe how html, css and javascript combine to create a webpage

Simple



Complex



3. Attention

— While **Attention Deficit Hyperactivity Disorder** (ADHD) is a common culprit, affecting 4.4% of adults, it's not the only source of inattention. **Bipolar disorder** (estimated at 2.8% of adults), **major depression** (6.7% of adults), and **anxiety disorders** (19.1% of adults) can cause occasional inattention. More common conditions such as **stress** or **sleep deprivation** can cause inattention in people who don't experience it as regularly.

Brandon Gregory

Welcome to
HENLC

New stuff attracts attention

H1 A list of things

You have 1 new message

Aaaaagh my presentation is tomorrow 😱

Aaaaagh 😱 😱 😱

Did I eat lunch?

I have to buy Sophie a present

New stuff can also be internal

Privatperson

Logg inn på Ditt NAV

Se dine utbetalinger, meldinger, saker, sykefravær m.m.

Ledige jobber

arbeidsplassen

Finn ledige stillinger og registrer CV

Skjema og søknad

Skjemaer for å søke og ettersende vedlegg

Hva er situasjonen din?

Arbeidsledig eller permittert

Om pengestøtte, registrering som arbeidssøker, CV, og feriepenger av dagpenger.

Trenger hjelp til å komme i jobb

Om NAVs tilbud for deg som trenger hjelp til å komme i jobb.

Trenger hjelp til å fullføre utdanning

Om muligheter for deg som trenger hjelp eller ekstra støtte for å fullføre utdanning.

Chat med oss

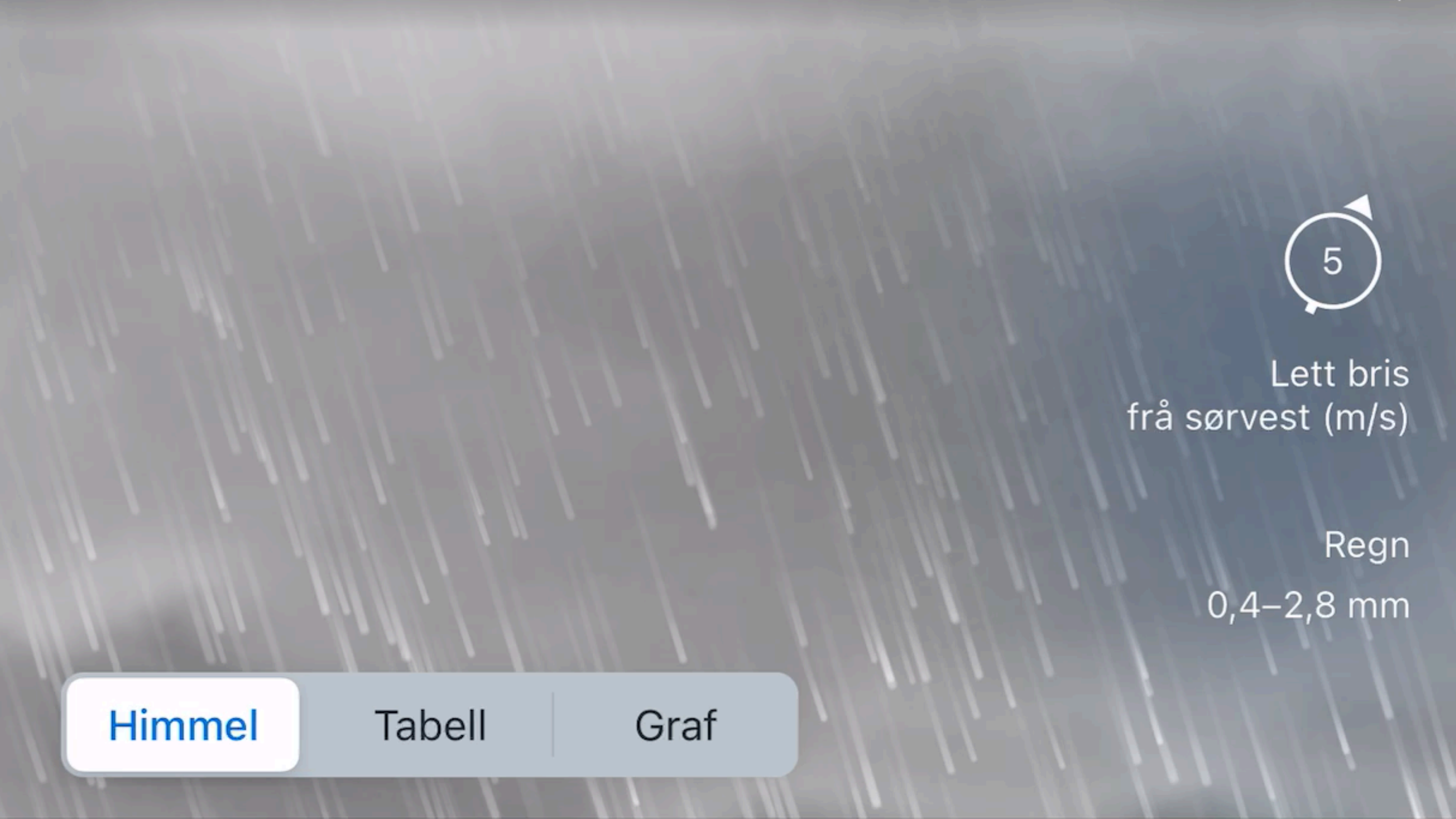
New information pushes old information off the stack

Interruption is «free»

«Wait … what was I doing?»

costs working memory

And probably something will fall off the stack


5
Lett bris
frå sørvest (m/s)
Regn
0,4–2,8 mm
Himmel
Tabell
Graf

Movement attracts attention

Changes in animation attract attention

08–18
NOVEMBER
OSLO 2018
FILM
FRA SØR
KJØP BILLETTER NÅ

Ignoring motion is

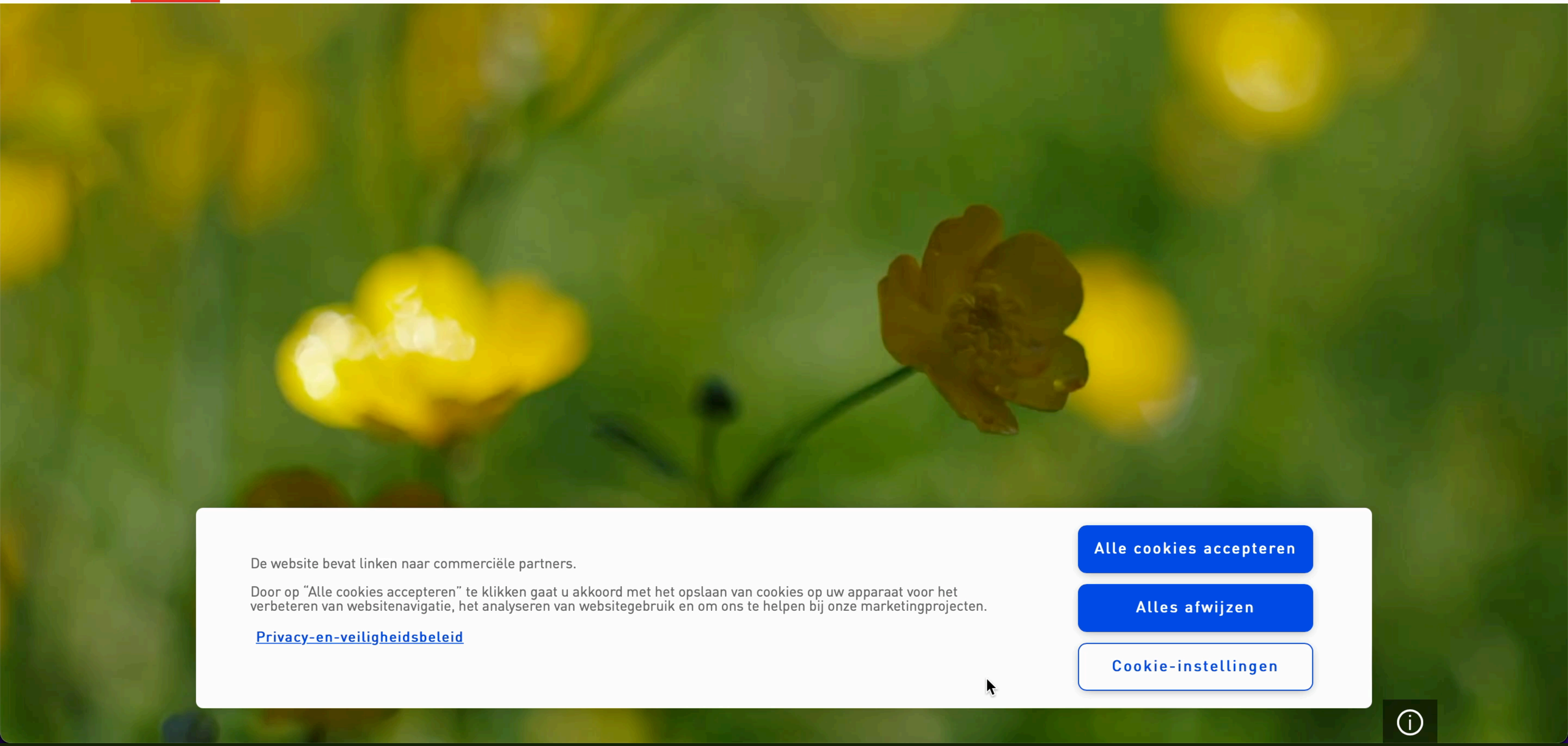
æææææ 😬

Hier vind je de meest recente reisinformatie

close

NORWAY

AANBIEDINGEN ZOEKEN MENU



De website bevat linken naar commerciële partners.

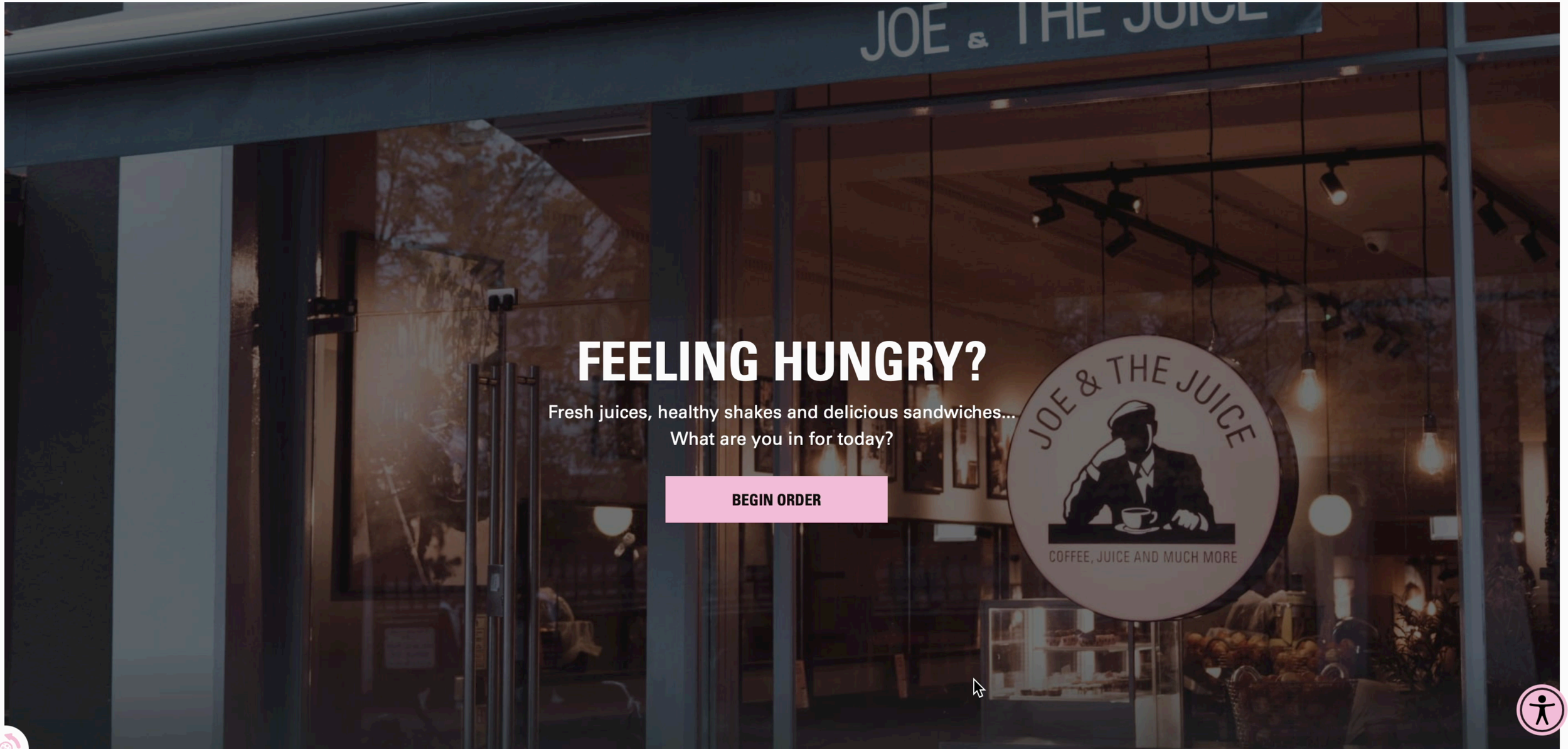
Door op "Alle cookies accepteren" te klikken gaat u akkoord met het opslaan van cookies op uw apparaat voor het verbeteren van websitenavigatie, het analyseren van websitegebruik en om ons te helpen bij onze marketingprojecten.

Privacy-en-veiligheidsbeleid

Alle cookies accepteren

Alles afwijzen

Cookie-instellingen



FEELING HUNGRY?

Fresh juices, healthy shakes and delicious sandwiches...
What are you in for today?

BEGIN ORDER

Please enjoy animation responsibly

Paying attention costs working memory

… the longer,
the more it costs

«Multi-tasking» requires attention management

Multi-tasking:

- **Task 1**
- **Task 2**
- **Remembering the other task exists**
- **Managing switching between Tasks 1 and 2**
- **Remembering where you were on the other task**

Steering your own attention is

Log out

Fill out this form

Please answer this question ? Help

And this one ? Help

You need to choose at least one thing

Add things

Continue

You have not yet added any things

Very important information before you fill out this form

Make sure that you have collected all the documents necessary for the form. If you are not able to upload all your documents, you can also do this after sending in your form.

If you are not able to provide documents then you may not be able to get whatever this form is about. If this applies to you, you can contact us about your case.

Log out

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I have answered this question

And this one ? Help

Here is my answer to this question

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And this one ? Help

Here is my answer to this question

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Add things

No, really, you need to choose at least one thing

Continue

i You have not yet added any things

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Log out

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can contact us about your case.

Add things

You must choose at least one

- [ ] Choice 1
- [ ] Choice 2
- [ ] Choice 3
- [ ] Unusual choice 4

Save things

Don’t save

Log out

Fill out this form

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Add things

You must choose at least one

- [x] Choice 1
- [ ] Choice 2
- [ ] Choice 3
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Save things

Don’t save

Log out

Fill out this form

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- [ ] Choice 2
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Save things

Don’t save

Log out

Fill out this form

Please answer this question ? Help

I have answered this question

And this one ? Help

Here is my answer to this question

You need to choose at least one thing

Add things Clear my choices

Continue

Thing 1 x

! Thing 3 is not available at this time

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«Inattentional blindness»

H1 A list of things

You have 1 new message

Aaaaagh my presentation is tomorrow 😱

Aaaaagh 😱 😱 😱

Did I eat lunch?

I have to buy Sophie a present

How do you remove items from the stack?

1. Wait

2. Do something with it

Prior knowledge structure
New information

It costs to connect new information with old

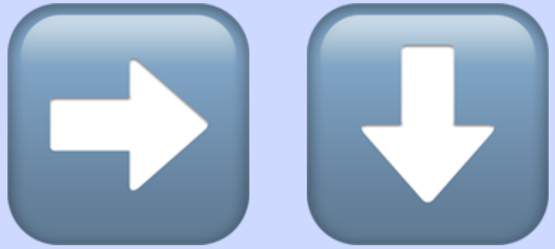
Static tricks for steering attention

And you will read this last

You will read this first

And then you will read this

Then this one



Reading direction

«Ink» has gravitational pull

«Ink» has gravitational pull

«Ink» has gravitational pull

Register to vote

You can use this service to:

- get on the electoral register so you can vote in elections or referendums
- update your name, address or nationality by registering again with your new details
- get on or off the open register

> This service is also available in Welsh (Cymraeg).

Deadline for registering to vote in the 5 May 2022 elections

You can no longer register to vote in the elections on 5 May.

You can still register for future elections.

Who can register

Related content

The electoral register and the 'open register'

How to vote

Contact your local Electoral Registration Office

Voting if you move or live abroad

Types of election, referendums, and who can vote

Apply for a postal vote

You normally only need to register once - not for every election. You'll need to register again if you've changed your name, address or nationality.

Register online

It usually takes about 5 minutes.

Start now >

What you need to know

You'll be asked for your National Insurance number (but you can still register if you do not have one).

After you've registered, your name and address will appear on the electoral register.

> There's a different process to register anonymously, for example if you're concerned about your safety or the safety of someone in your household.

Button
Button
Button

Control the use of your personal data

We and our partners may access your device to recognize you through identifiers such as cookies, and collect, store, combine, and transfer data your IP and email addresses, choices and software settings, your browsing activity and your location, for these purposes: Basic ads, and ad measurement, Personalised ads profile and display, Personalised content and Content measurement, audience insights, and product development.

You may accept all identifiers and data processing activities requiring your consent, or refuse them by clicking "Do not accept", find out more and make a granular choice or object to activities based on legitimate interests via the setting screen. You can change your mind or withdraw your consent at any time via the "Cookies" link. Your choices will apply to this website and our emails during 6 months, and we will not ask you again until tomorrow.

Accept all

Set your choices

do not accept

Tell us whether you accept cookies

We would like to use cookies to collect information about how you use **ons.gov.uk**.

We use this information to make the website work as well as possible and improve our services.

Accept all cookies | Set cookie preferences

census 2021 Find out more about census

Coronavirus (COVID-19)

Get the latest data and analysis on coronavirus (COVID-19) in the UK.

Main figures – From our time series explorer

Employment

Employment rate

Unemployment rate

Inflation

CPIH 12-month rate

GDP

Quarter on Quarter

Chicken Game

Don’t look at this chicken

IN.

HAVE YOU SEEN HIM?

NOW YOU HAVE :)

Images are (almost) free to process

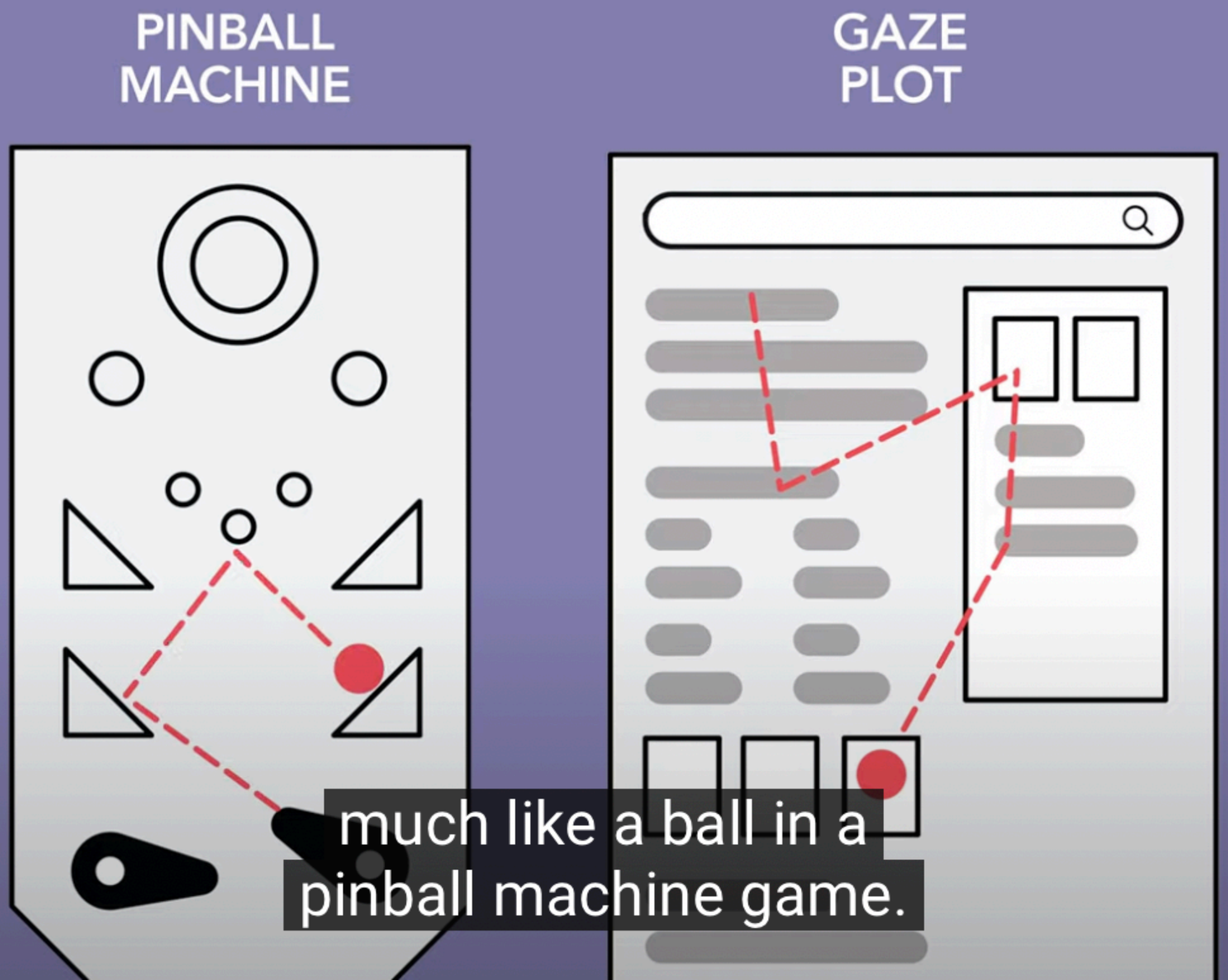
But what if you’re blind?

Visual is 3 dimensions

and **time**

Auditory is just linear time

The Pinball Pattern



much like a ball in a
pinball machine game.

nng.com

ANALYSE

Hoe Nederland van het Russische aardgas af probeert te komen, met behulp van vloeibaar gas uit Rusland

NIEUWS

Ook witwas-verdenking voor Van Lienden en compagnons, 'geen nieuws' vindt hij zelf

NIEUWS

The Great Translation Movement legt 'de donkere zijde van het Chinese internet' bloot

NIEUWS MEER >

Advies: stop met de crisisaanpak asielzoekers, meer buffercapaciteit aan opvangplekken

Dichthouden kroondomein heeft nauwelijks financiële gevolgen voor koning Willem-Alexander

Kamer mag landsadvocaat niet horen over wissen sms'jes door Rutte

🎧 Afrikaanse landen nemen Poetin de oorlog niet kwalijk. Beluister onze dagelijkse podcast

Live: Rusland wint terrein bij Charkiv • Situatie in Severodonetsk 'extreem verslechterd'

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Live: Rusland wint terrein bij Charkiv • Situatie in Severodonetsk 'extreem verslechterd'

A screenreader user can’t skip to the bit that looks interesting

How do you know how far forward to skip?

Attention-jacking works just as effectively with sound

1. Get to the point
2. Prioritise carefully
3. Don’t auto-play media

If you are blind
you might have slightly better
working memory

(not all studies agree)

how-i-experience-web-today.com
An article I want to read
Cookie Privacy Statement
Edit cookie preferences
Accept

goto;

GOTO
Guide

Remember to **rate this session**

THANK YOU!

Download on the App Store

GET IT ON Google Play

#GOTOams

You have visual and auditory working memory

They're both small,

but $a + b > b$**, right?**

TV and film done right exploit this very well

Orienting attention is free!

Steering attention is expensive