Clear and Accessible Writing for Public Engagement

Tuesday 25 April 2023

University of Brighton

PAMELA AGAR PROJECTS

Goals for today

- Consider who you are writing for and why
- Understand how people read, particularly online, and what this means in terms of how you approach writing
- Learn the fundamentals of writing clear and accessible content
- Explore tools and resources that can help you
- Have reviewed, edited and improved your own writing
- Have edited a colleague's work and offered feedback and constructive suggestions.

How we'll run today's session

PRESENTATION AND DISCUSSION

A balance of both

SHARING SLIDES

Slides and resources shared online

ASK QUESTIONS

Don't hesitate – let me know!

https://www.pamelaagar.com/writing-course
Password: Brighton

Introductions

About me – Pamela Agar

Head of Digital and Creative
Imperial College London

2 x institutional website redesigns
Revamped news channel
Student blogging
Web, social, video, brand, editorial strategy

Digital Project Manager
The Francis Crick Institute

Digital transformation projects

Co-Executive Director
CASE Europe

Professional development, awards, thought leadership in education advancement

Managing Director
Pickle Jar Communications

Students' Union UCL
St George's, University of London
University of Stirling
University of York
SOAS

Director, *Pamela Agar Projects Ltd*

St George's, University of London
St Paul's Cathedral
University of Aberdeen
Guildhall School of Music & Drama
UK Dementia Research Institute
Imperial College London
SCDTP

About you

- Your name
- Your work in a sentence…

https://www.menti.com/
8483 3610

Writing for public engagement – some **inspiration** and **ideas**

What kind of writing are we talking about?

- **Long form** – blog posts, web pages, opinion pieces, creative writing
- **Short form** - social media, photo captions
- **Physical** – exhibitions, posters, print

Why are you writing?

To **INFORM**

To **ENTERTAIN**

To **INTERACT**

To INFORM

British Heart Foundation

How your heart works

The human heart works like a pump sending blood around your body to keep you alive.

It's a muscle, about the size of your fist, in the middle of your chest tilted slightly to the left.

What is the function of the human heart?

Each day, your heart beats around 100,000 times. This continuously pumps about five litres (eight pints) of blood around your body through a network of blood vessels called your circulatory system. This blood delivers oxygen and nutrients to all parts of your body to help your organs and muscles work properly. Your blood also carries away unwanted carbon dioxide and waste products.

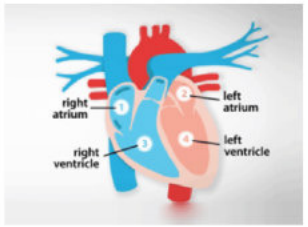
What is the structure of the human heart?

Your heart has a left side and a right side, they are separated by a thin muscular wall called the Septum. Both sides of your heart have an upper chamber and a lower chamber.

- the upper chambers are called the **left atrium** and the **right atrium** (or the atria)
- the lower chambers are called the **left ventricle** and the **right ventricle**.

The right side of your heart receives the de-oxygenated blood that has just travelled round your body. It pumps the blood to your lungs to collect a fresh supply of oxygen. The left side of your heart pumps the re-oxygenated blood round your body again.

Your heart muscle is made up of three layers of tissue:



Related links

- How your heart works
- Your heart rate
- How to restart a heart

https://www.bhf.org.uk/informationsupport/how-a-healthy-heart-works

British Trust for Ornithology (BTO)

The State of the UK's Butterflies 2022

03 Feb 2023

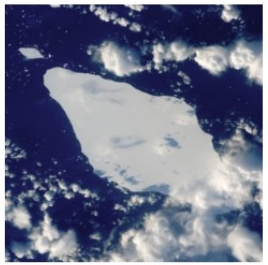
A newly-released report on the UK's butterflies has revealed that 80% of butterfly species in the UK have declined since the 1970s, and half of our remaining butterfly species are at risk of extinction from Britain.

The State of the UK's Butterflies 2022 is based on nearly 23 million records of butterfly sightings, most of which are submitted by citizen scientist surveyors. The report is produced by Butterfly Conservation, the UK Centre for Ecology & Hydrology and BTO.

Many BTO volunteers have contributed to the report by collecting data about butterflies on their BTO/JNCC/RSPB Breeding Bird Survey sites, as part of the UK Butterfly Monitoring Scheme's Wider Countryside Butterfly Survey.

The report highlights long-term trends, which show that many butterfly species have declined over the last 50 years in both distribution and abundance.

British Antarctic Survey



Last Post from the burning decks of a melting iceberg

22 March, 2023 Emily Newton

Composer Ewan Campbell has written a piece of music for trumpet inspired by the 21-year journey of the A22a iceberg. The new composition was also illustrated onto a British Antarctic ...

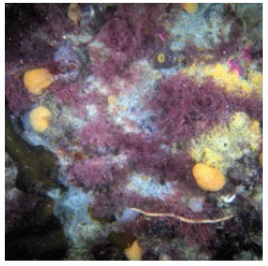
Read more

Breaking records and exploring life in the abyss

21 March, 2023 Huw Griffiths

We are marine biologists that study seafloor creatures, Jamie is doing a PhD investigating Antarctic sea spiders in the University of Galway and Huw works at BAS. Both of us ...

Read more



Fantastic fjords emerging from glacier retreat

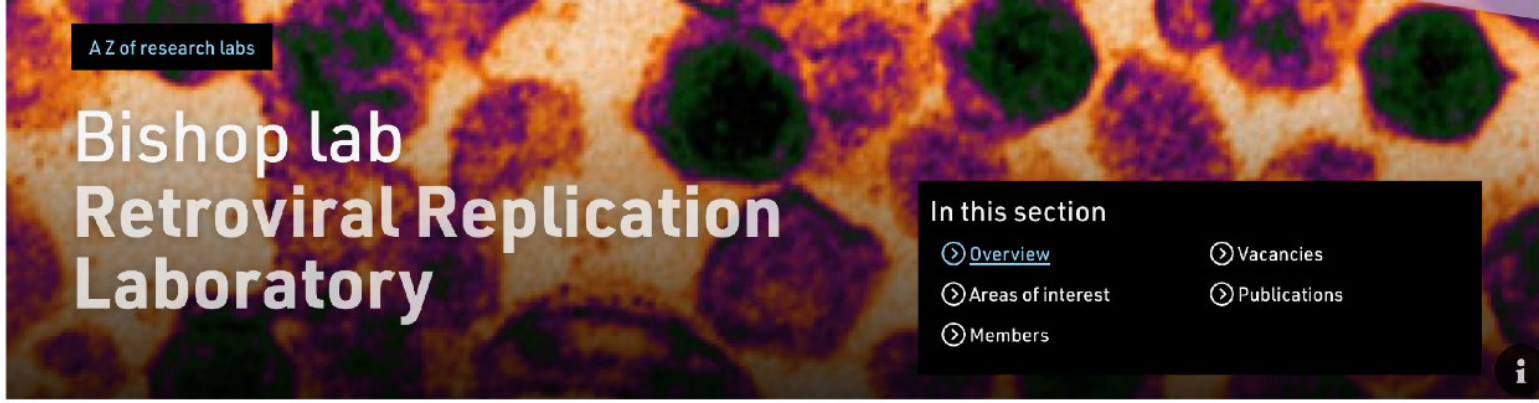
16 March, 2023 David Barnes

The RRS Sir David Attenborough has begun its polar science trials in Antarctica. A team of 30 national and international scientists, engineers and technical staff are working on the ship ...

Read more

The Francis Crick Institute

Layered website content for public and scientific audiences



We are investigating how retroviruses such as HIV infect and multiply inside cells so that we can understand them better and develop more effective antiviral treatments.

Viruses are tiny particles made of genetic material packed inside a coat made of protein and fat, which can only survive by infecting larger animal, plant or bacterial cells. Once inside, they hijack the cellular machinery in order to make many copies of themselves. These new particles are released from the cell and can infect new hosts, spreading the infection.

Some viruses, known as retroviruses, insert their own genetic material into the host's genome as part of their normal replication process, leading to long-term, chronic infection. Retroviruses cause severe diseases including cancer, but the best-known retrovirus is HIV (human immunodeficiency virus), which infects immune cells and causes AIDS.

More than 36 million people around the world are currently living with HIV/AIDS, and although there are now effective drugs that can hold HIV at bay for many years, it is not yet possible to completely cure or prevent the infection. And there is still much we do not know about exactly how retroviruses infect host cells.

To find out more, we are studying the role of different viral proteins and other molecules inside the cell that help to promote infection. We also study the natural anti-viral defenses of the host. Knowing more about the processes at work as retroviruses infect cells will lead us towards new ideas for antiviral drugs that could help to eradicate HIV and make a major impact on human health.

Contact

Kate Bishop
Principal Group Leader

Related topics

BIOCHEMISTRY & PROTEOMICS
CELL BIOLOGY
INFECTIOUS DISEASE
MODEL ORGANISMS

Retroviruses cause severe diseases, including immunodeficiency and cancer. The human immunodeficiency virus (HIV) is the most widely known retrovirus due to its impact on human health. The latest figures (WHO/UNAIDS 2017) report that nearly 37 million people globally are living with HIV/AIDS.

Innovative therapeutics for retroviral diseases will hopefully arise from a better understanding of how retroviruses reproduce in the cell, how they interact with host cell factors and how they subvert the host innate and adaptive immune systems. The early stages of the retroviral life cycle are particularly attractive therapeutic targets, with several anti-retroviral drugs and cellular anti-viral factors inhibiting these steps. However, numerous events that occur during these stages are still poorly understood. The three main projects in our laboratory aim to characterise the molecular events that occur once a retrovirus has entered a cell in order to fully understand retroviral replication and provide potential ways in which to manipulate these processes for the benefit of human health.

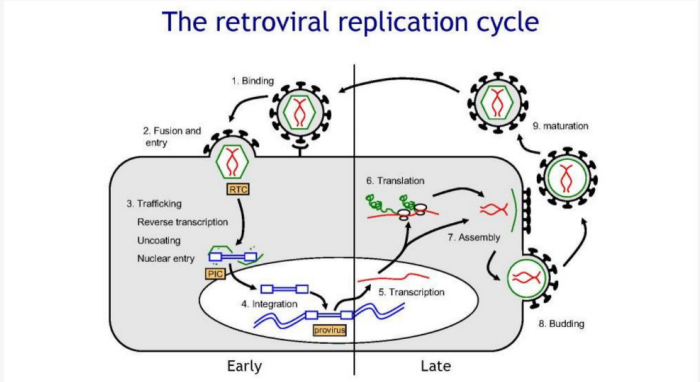


Figure 1. The replication cycle of a retrovirus. The retroviral life cycle is arbitrarily divided into two phases, early and late. The stages in each phase are shown above. Interactions between viral and host cell factors occur at every stage of the viral life cycle, although many are still poorly understood. Identifying and understanding these interactions are key to developing new treatments to combat retroviral diseases. (RTC, reverse transcription complex; PIC, pre-integration complex)

To ENTERTAIN

https://www.instagram.com/damien_kempf/

Senior Lecturer in Medieval History, University of Liverpool

122,000 followers

“The majority of my exchanges on social media are with non-academics, which I find particularly rewarding given that my aim in posting medieval images on Twitter and Instagram is precisely to reach out to people who are not specialists and would not otherwise encounter these images.”

The Poetry of Science

"this is sixth form poetry, not Keats or Yeats"

POETRY PODCAST ABOUT CONTACT

Beneath Shifting Canopies

April 21, 2023

The study of Earth's climate change and its impact on biodiversity reveals that many trees face potential extinction and decreased diversity, with uncertain consequences for ecosystems and human livelihoods.

Follow The Poetry of Science

Get a new science poem, every Friday.

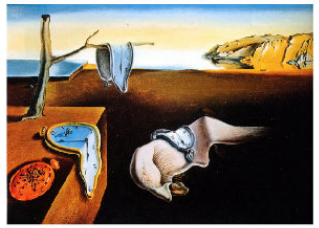
Email Address

Subscribe!

Artificial Bites at Night

April 14, 2023

Light pollution might lower mosquito survival by messing with their energy storage. This could potentially make the mosquito biting season longer and make it harder for those living in urban environments to survive the winter.



Lost in Time

April 7, 2023

Circadian disruption can cause health problems, including cancer, diabetes, and problems with brain cells. It can be caused by jet lag, shift work, and artificial light at night.

Aggregated by science seeker

https://thepoetryofscience.scienceblog.com/

Beneath Shifting Canopies

April 21, 2023 by Sam Illingworth

Stories etched in bark
play out tales
of light and shade,
verdant cells of leaves
and land.
Climate's past whispers
in the boughs,
breaking form
and branch
with every shifting
stage.
A tapestry of life
weaved on fading limbs,
as frozen truths
of ancient climes
spin round once more
on threads worn thin
from wear.
Inside the shadows
of these blizzards past,
our future greens
are draped in doubt
and cast by change.

The Poetry of Science

"this is sixth form poetry, not Keats or Yeats"

POETRY PODCAST ABOUT CONTACT

Beneath Shifting Canopies

April 21, 2023

The study of Earth's climate change and its impact on biodiversity reveals that many trees face potential extinction and decreased diversity, with uncertain consequences for ecosystems and human livelihoods.

Follow The Poetry of Science

Get a new science poem, every Friday.

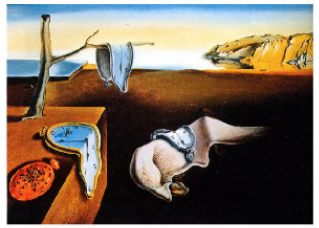
Email Address

Subscribe!

Artificial Bites at Night

April 14, 2023

Light pollution might lower mosquito survival by messing with their energy storage. This could potentially make the mosquito biting season longer and make it harder for those living in urban environments to survive the winter.



Lost in Time

April 7, 2023

Circadian disruption can cause health problems, including cancer, diabetes, and problems with brain cells. It can be caused by jet lag, shift work, and artificial light at night.

Aggregated by science seeker

https://thepoetryofscience.scienceblog.com/

This poem is inspired by recent research, which has found that the diversity of present tree species is shaped by climate change in the last 21,000 years.

Scientists have long studied how Earth's climate has changed over time and how it has affected different types of life. By looking at how climate change has impacted biodiversity in the past, they can better understand the potential risks of future climate change. However, it's still not clear how climate change affects biodiversity in different areas.

In this new study, scientists investigated how climate change has affected the diversity of angiosperm trees (i.e., flowering trees with seeds enclosed in a fruit/protective covering) using a new global survey of 1,000 forest areas. They analysed the changes in tree types in neighbouring regions over time and found that areas with larger temperature changes between glacial and interglacial periods had lower species turnover (i.e., fewer new species of trees replacing old ones in a particular area over time) and higher richness changes (i.e., more new types of trees being added to an area over time). The study also indicated that certain tree species were more likely to survive and thrive during past climate change events, while others became extinct or were unable to spread to new areas. These findings suggest that if climate change continues at its current rate, the diversity of angiosperm trees worldwide may decrease, which could have detrimental impacts on ecosystems and human livelihoods.

To INTERACT
The Francis Crick Institute
Public exhibitions

https://www.crick.ac.uk/whats-on/exhibitions/cut-paste/cut-paste-online-exhibition

PART ONE

What is genome editing?

The average human being is made of more than 30 trillion cells. These form your skin, bones, brain, and every other bit of your body. And in almost all of your cells there is a copy of your unique instruction manual: your genome.

To understand how this manual can be edited by 'cutting and pasting', first it's helpful to know how we are constructed...

If you could change one thing about yourself, what would it be?

What are you made of?

What makes you you?

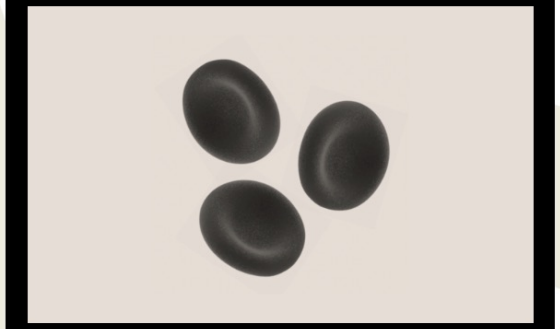
What is genome editing?

Plant power

Should genome editing be used to help solve global health issues?

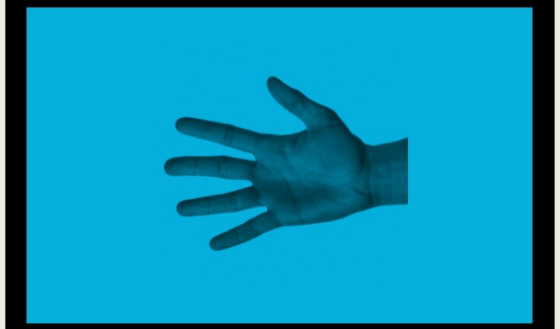
Climate-friendly cows

Should genome editing be used to help solve environmental crises?



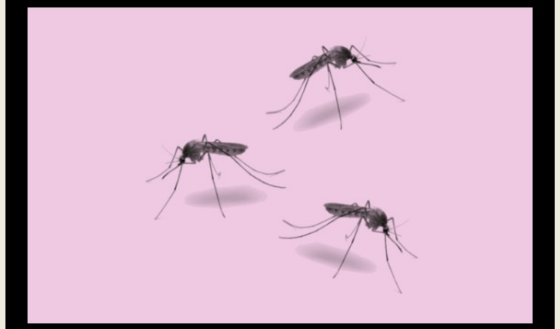
Sickle cell disease

Should genome editing be used to cure inherited diseases?



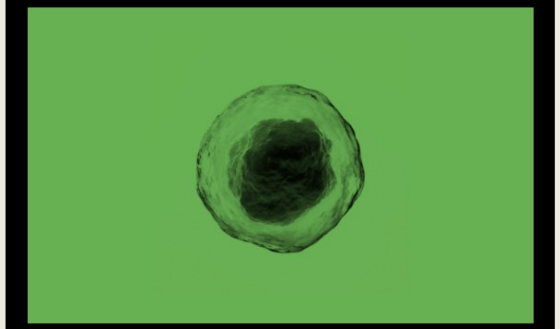
Super humans

Should genome editing enhance our minds and bodies?



Malaria research

Should genome editing be used on entire species to get rid of infectious diseases?



New frontiers

Should we use heritable human genome editing for challenges that could be solved in other ways?

Where do you draw the line?

How do you feel about using genome editing tools to alter an entire species to save human lives?

- No way
- I don't think so
- Hmm...not sure
- Okay with me
- Bring it on

VOTE VIEW RESULTS

Big Garden Birdwatch

RSPB

The house sparrow grabs top spot again!

This bold, noisy, community-minded bird has landed in top spot in Birdwatch, for the 20th year in a row, despite more than 10 million pairs disappearing in the UK since the late 1960s. However, house sparrow numbers have remained relatively stable over the last twenty years with signs of increases in some parts of the UK.

Can you share any other examples?

Who do you think does this well?

What makes those examples good?

How do people read online?

The science of reading

“Reading is the ability to extract visual information from the page and comprehend the meaning of the text”

- Keith Rayner and Alexander Pollatsek’s *Psychology of Reading*

- Readers’ eyes don’t read one word and then move on to the next – they jump about all over the place
- The more familiar your words are to the reader, the faster the reader can understand what they mean

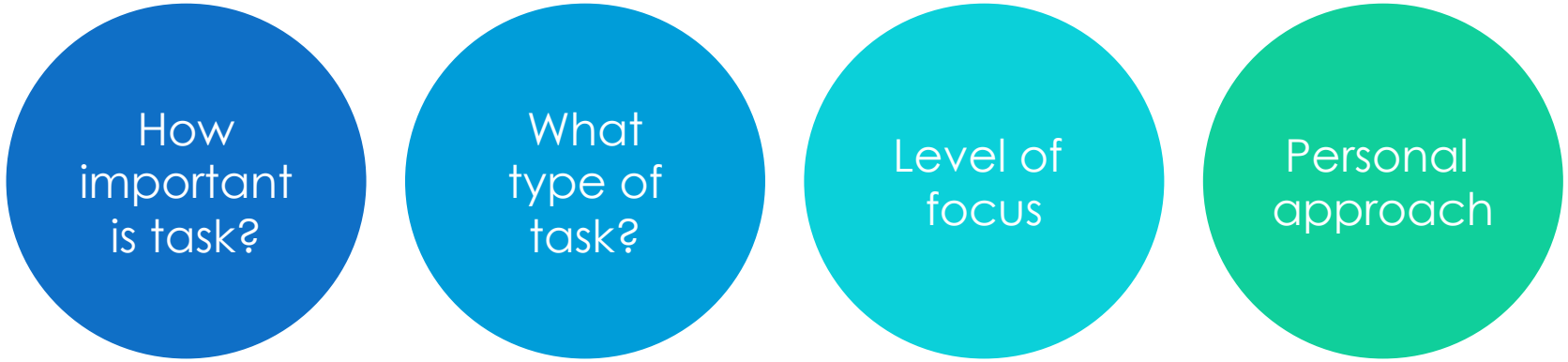
From the age of 9, your eyes can miss 30% of text on the page and your brain will still accurately predict the content

Reading online

People only read 20-28% of the page

- Jakob Nielsen

People scan, they don't read. They are naturally efficient with their time and effort.



https://www.nngroup.com/articles/how-people-read-online/
https://www.nngroup.com/articles/text-scanning-patterns-eyetracking/

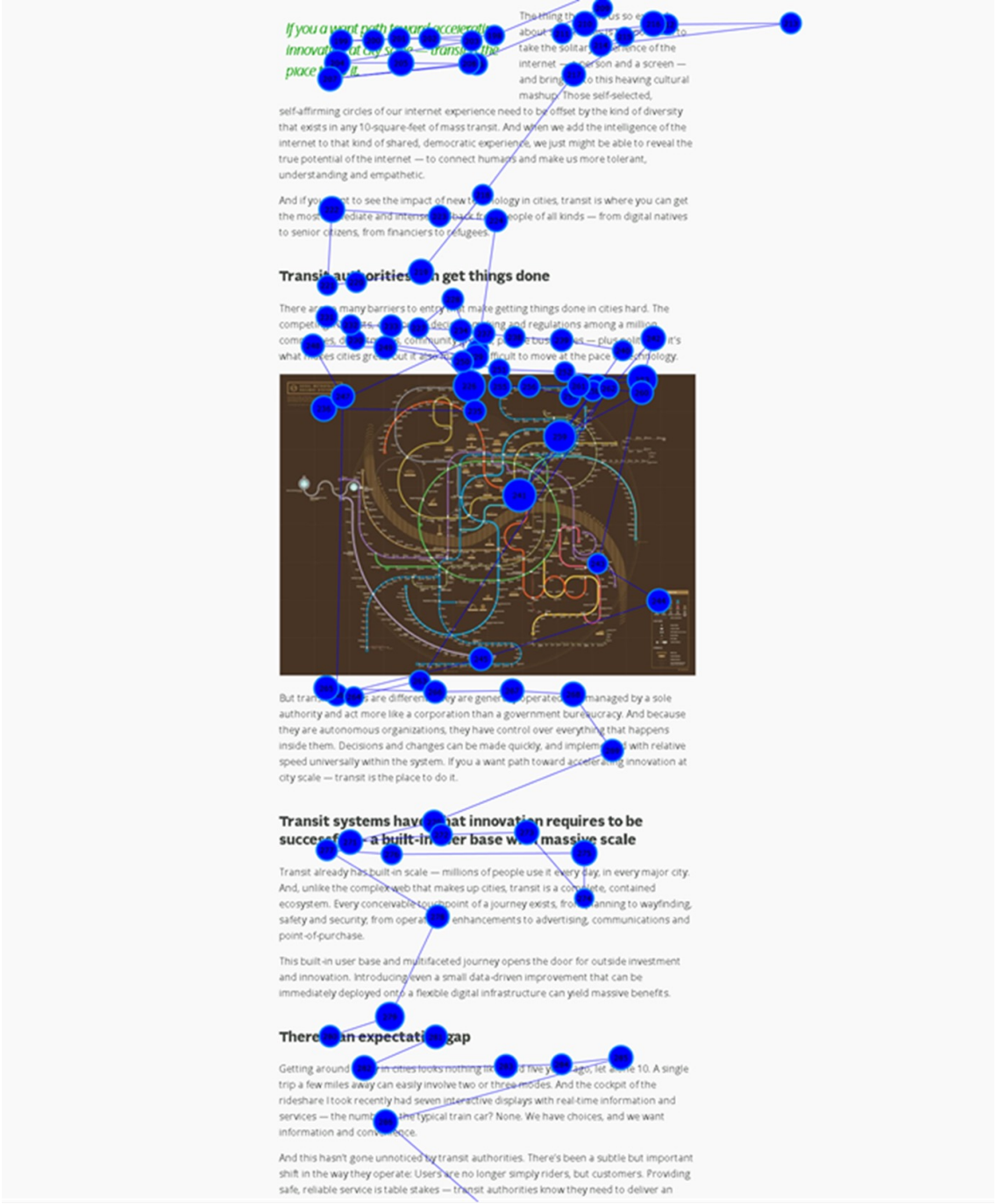
F-pattern

In the absence of subheadings and bullets, users tend to fixate on the words toward the beginning of lines and toward the top of the page.

Eyetracking by Nielsen Norman Group nngroup.com NN/g

Layer-cake pattern

Fixations on the page's headings and subheadings, with deliberate occasional fixations on the (body) text in between.



Core writing **principles**

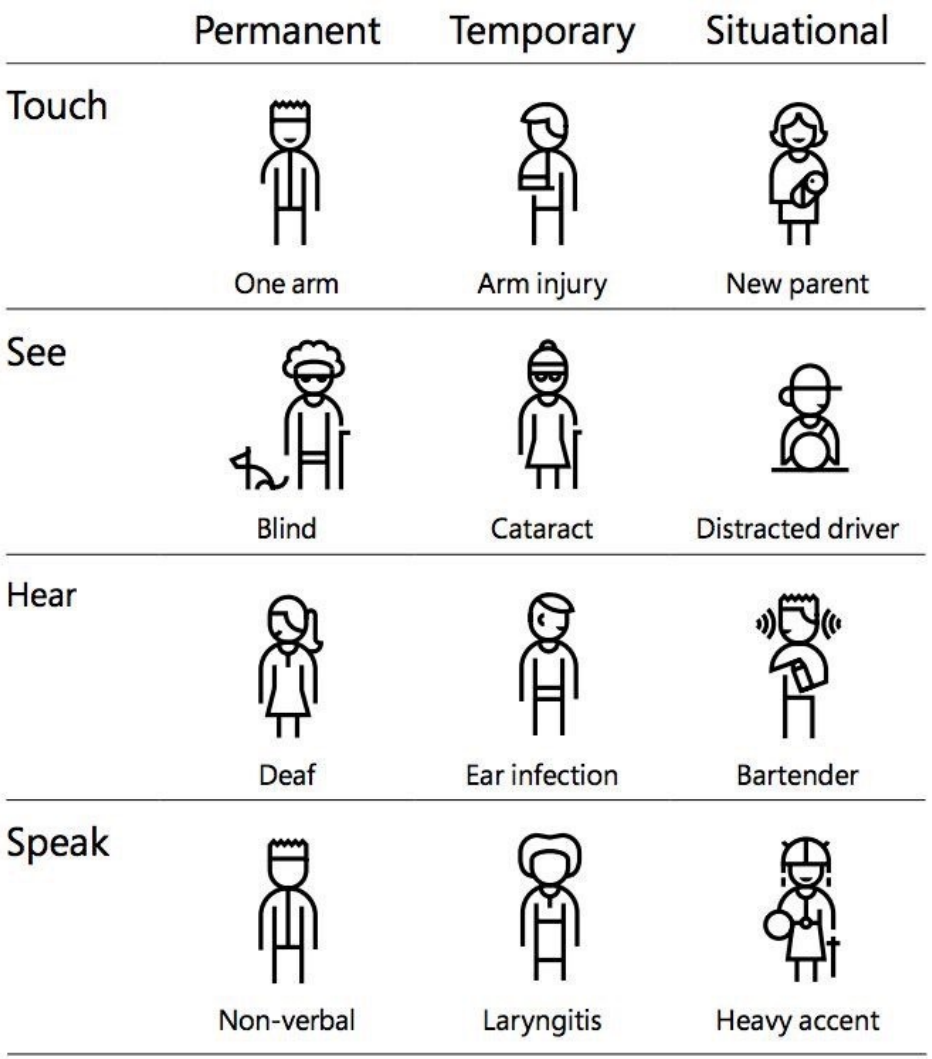
Web ‘accessibility’ online

Web accessibility means that websites, tools, and technologies are designed and developed so that people with disabilities can use them.

Accessibility is not just about disability, it is about universality.

- It is about the inclusion and participation of people with disabilities using the web.
- It means making your digital content accessible to **all internet users**.

Design decisions disable people



https://www.w3.org/WAI/fundamentals/accessibility-intro/

Inclusive
A Microsoft Design Toolkit

Accessible writing – plain English

Making content **clear** and **understandable** opens writing up for users with different literacy levels and access challenges.

https://readabilityguidelines.co.uk/clear-language/plain-english/

- Web Content Accessibility Guidelines (WCAG) say: "using the clearest and simplest language appropriate is highly desirable."
- The United Nations recommends plain language for communications.

Choose easy and short words not formal, long ones.

- Write for the reading comprehension of a 9 year old.
  - helps your **content reach** the most users
  - makes your content **easier to scan** read

"buy" not "purchase”
"help" not "assist”
"about" not "approximately”
“use” not “utilise”

Keep your sentences and paragraphs short too

- The maximum sentence length for a good level of comprehension is 25 words. Split long sentences up into 2 or 3, or use bullet points.
- Oxford Guide to plain English, GOV.UK and linguists agree:
  - 15 word sentences are more likely to be comprehensible
  - 25 words is a good maximum sentence length limit
  - above 40 words sentences are hard to comprehend easily
- 5 sentence paragraphs

BUT…

Keep sentence length varied - A mix of slightly shorter and slightly longer sentences can make reading more interesting.

Jargon and buzzwords are unlikely to be clear language

- These words are too general and vague and can lead to misinterpretation or empty, meaningless text.
- Think about what the term actually means and describe that.
- Be **open** and **specific**.

"Let's touch base in 10 and do some blue sky thinking."

or

"Let's meet in 10 minutes to think of some ideas."

Explain technical terms

- Technical terms are not jargon – you will need them!
- Explain what they mean the first time you use them.

Write conversationally, in first person, using the active voice

- Picture your audience and write as if you were talking directly to them, with the authority of someone who can help and inform.

Test your content with users

- What is clear to you may not be for someone else.

Isn't this 'dumbing down'?

- Research shows that **higher literacy people prefer plain English** because it allows them to understand the information as quickly as possible.
    - Research into use of specialist legal language in legal documents found that 80% of people preferred sentences written in clear English
    - the more complex the issue, the greater that preference the more educated the person and the more specialist their knowledge, the greater their preference for plain English
- People understand complex specialist language, but do not want to read it if there's an alternative. People with the highest literacy levels and the greatest expertise tend to have the most to read.

https://gds.blog.gov.uk/2014/02/17/guest-post-clarity-is-king-the-evidence-that-reveals-the-desperate-need-to-re-think-the-way-we-write/

“It’s not dumbing down, it’s opening up”

- Sarah Richards, “Content Design”

“It’s not dumbing down – it’s opening up”

- It **communicates information succinctly and efficiently** so that readers understand the message quickly
- It **benefits everybody**, from expert readers to international users and people who use English as a second language.
- It is **easily searchable** and will often gain you a better search engine ranking.
- It is **welcomed by readers**; in fact, studies show that it makes the writer look smarter. (If people understand more of what you’re saying, they will likely feel that you make sense.)

> To write gallery text that is captivating, illuminating, and comprehensible for a wide audience is difficult but not impossible to reach. To achieve this, **we do not have to 'dumb down' our scholarship** and collections.
>
> Instead, we have to **recognise visitors' needs and interests**, and use the devices of good writing to communicate our ideas. By good writing, we do not simply mean clarity and correct grammar. To appeal to our visitors in the busy environment of the museum, text also needs **personality, life and rhythm**. Only these qualities of communication will highlight the ingenuity of our collections and enrich the imaginations of our visitors in the way that we promise.

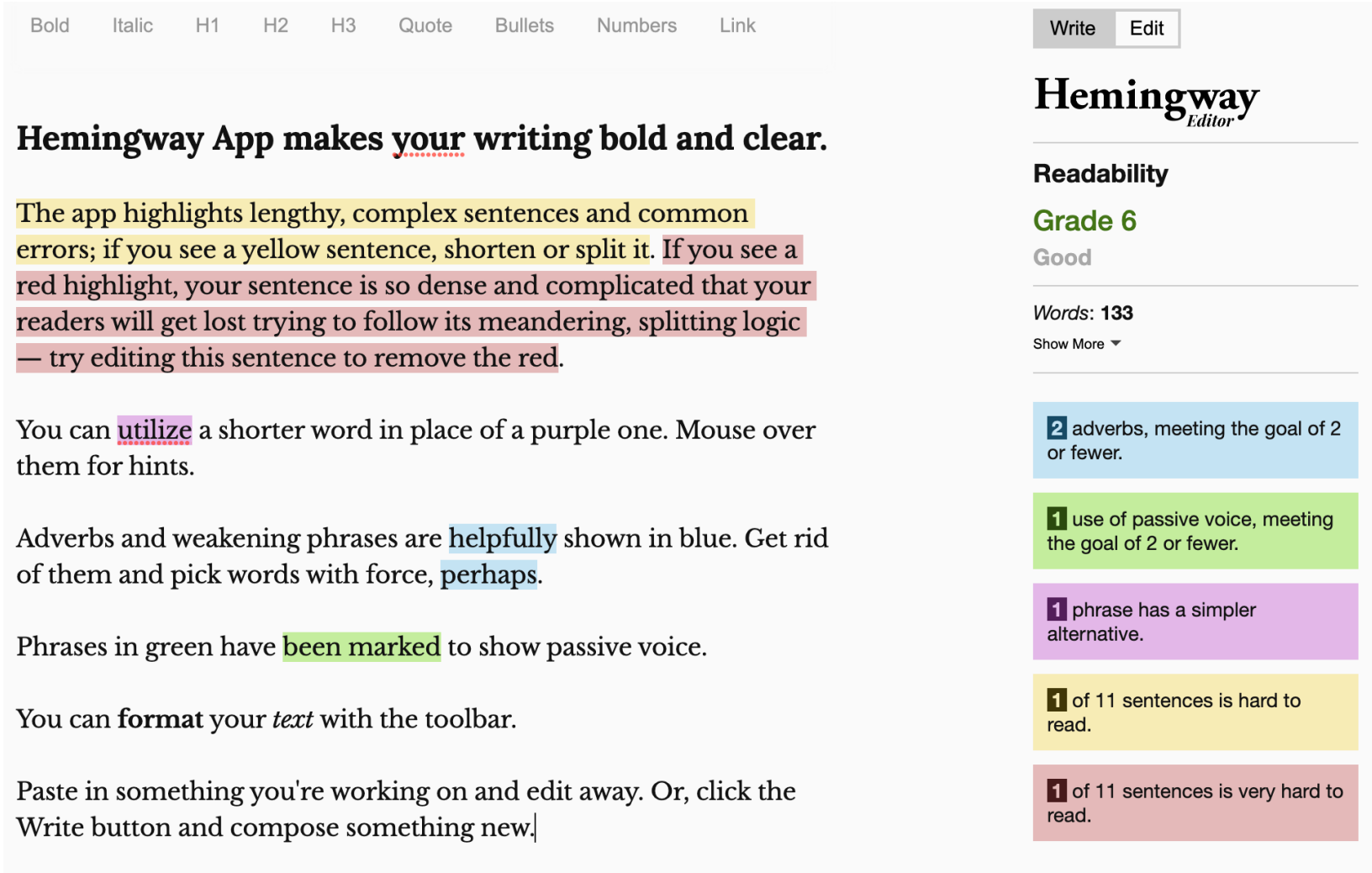
https://www.vam.ac.uk/blog/museum-life/getting-it-write

George Orwell's 6 rules of writing

1. Never use a metaphor, simile, or other figure of speech which you are used to seeing in print.
2. Never use a long word where a short one will do.
3. If it is possible to cut a word out, always cut it out.
4. Never use the passive where you can use the active.
5. Never use a foreign phrase, a scientific word, or a jargon word if you can think of an everyday English equivalent.
6. Break any of these rules sooner than say anything outright barbarous.

Your turn

https://hemingwayapp.com/



Structuring your content

e.g. blog posts, web introductions

Questions to consider

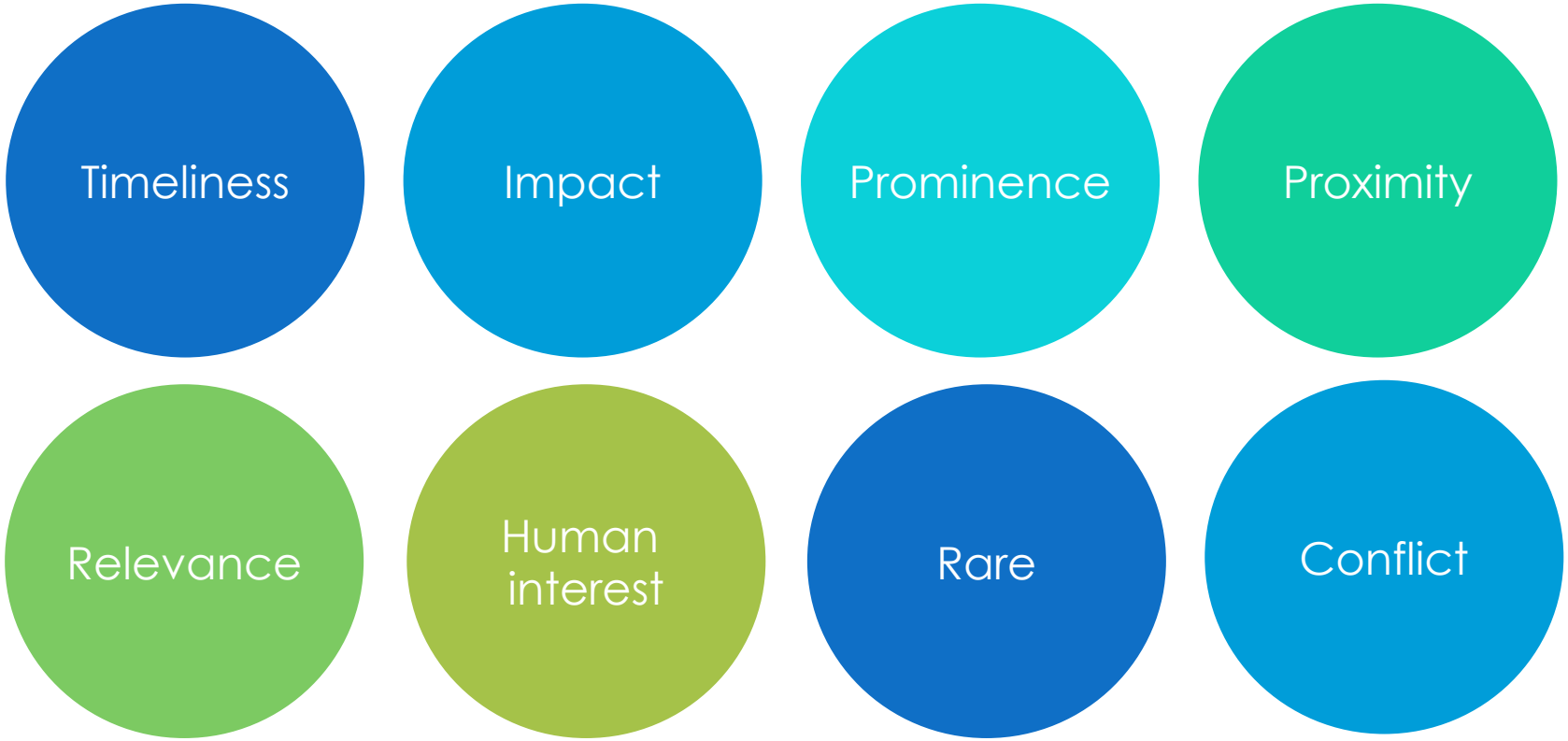
- **Who** are your audiences?
  - Try to be specific

- What do you want them to **do**?
  - Are there tangible actions you would like your reader to take?
  - Is it about changing minds rather than tangible action?
  - Do you want them to share your content?

- **Where** are they reading?
  - Inform your platform choice

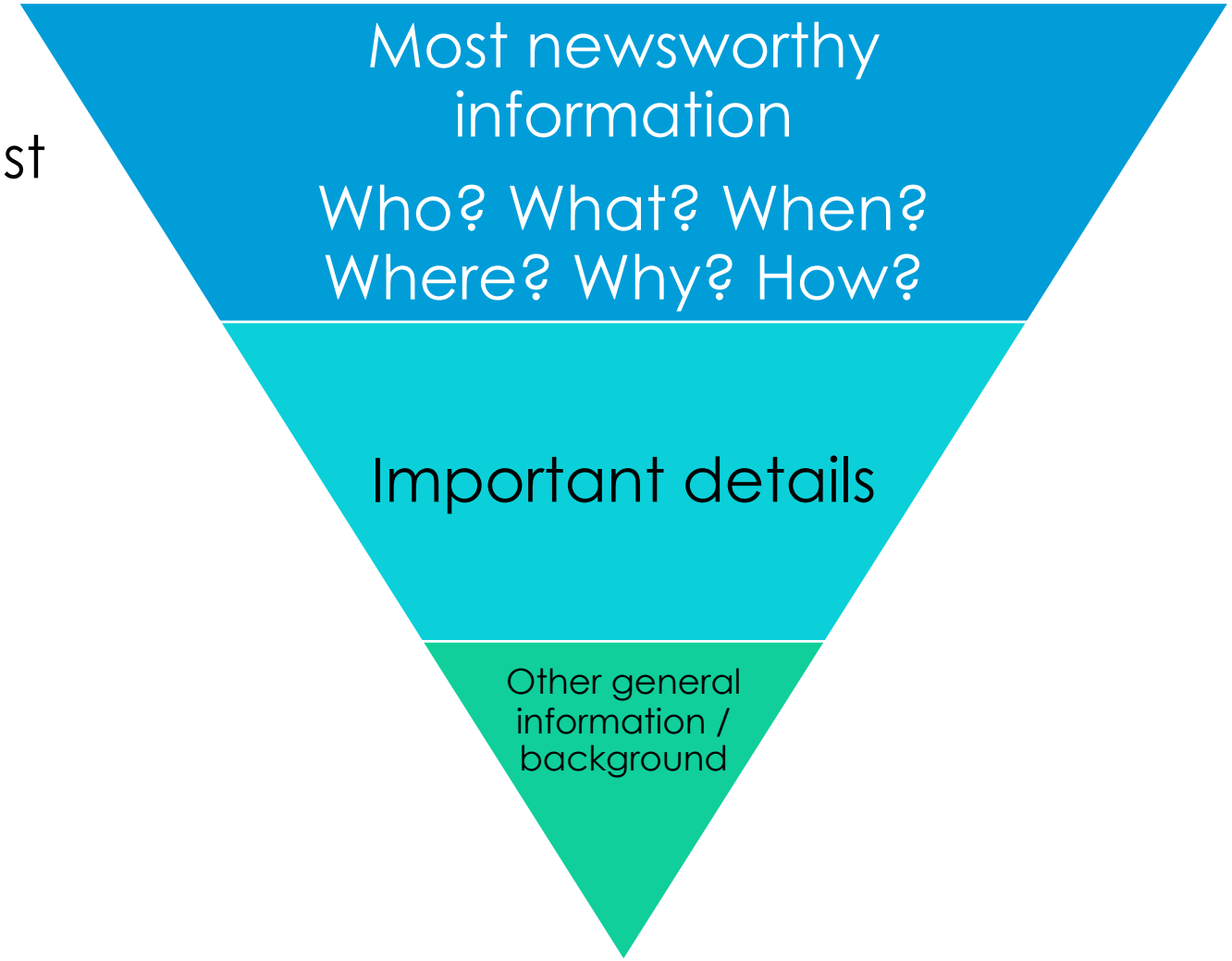
Consider the news value

- What will make your content interesting, useful and shareable to your readers?



Structure your writing – informative writing

- Get to the point quickly – first 100 words should offer the most crucial information
- Priority is to get information across to as many people as possible quickly



Garden scraps: British wildlife clash over leftover food

Badgers, hedgehogs, foxes and cats are becoming embroiled in fights and stand-offs over food left in British gardens, a study has revealed.

27 February 2023

Wildlife conservation experts at the University of Brighton and Nottingham Trent University analysed hundreds of videos supplied by members of the public to investigate interactions within and between different species.

The researchers found that while food left by people in urban gardens – leftovers or commercially bought for this purpose – can provide benefits for wild animals, it can also bring competitors and predators into close proximity.

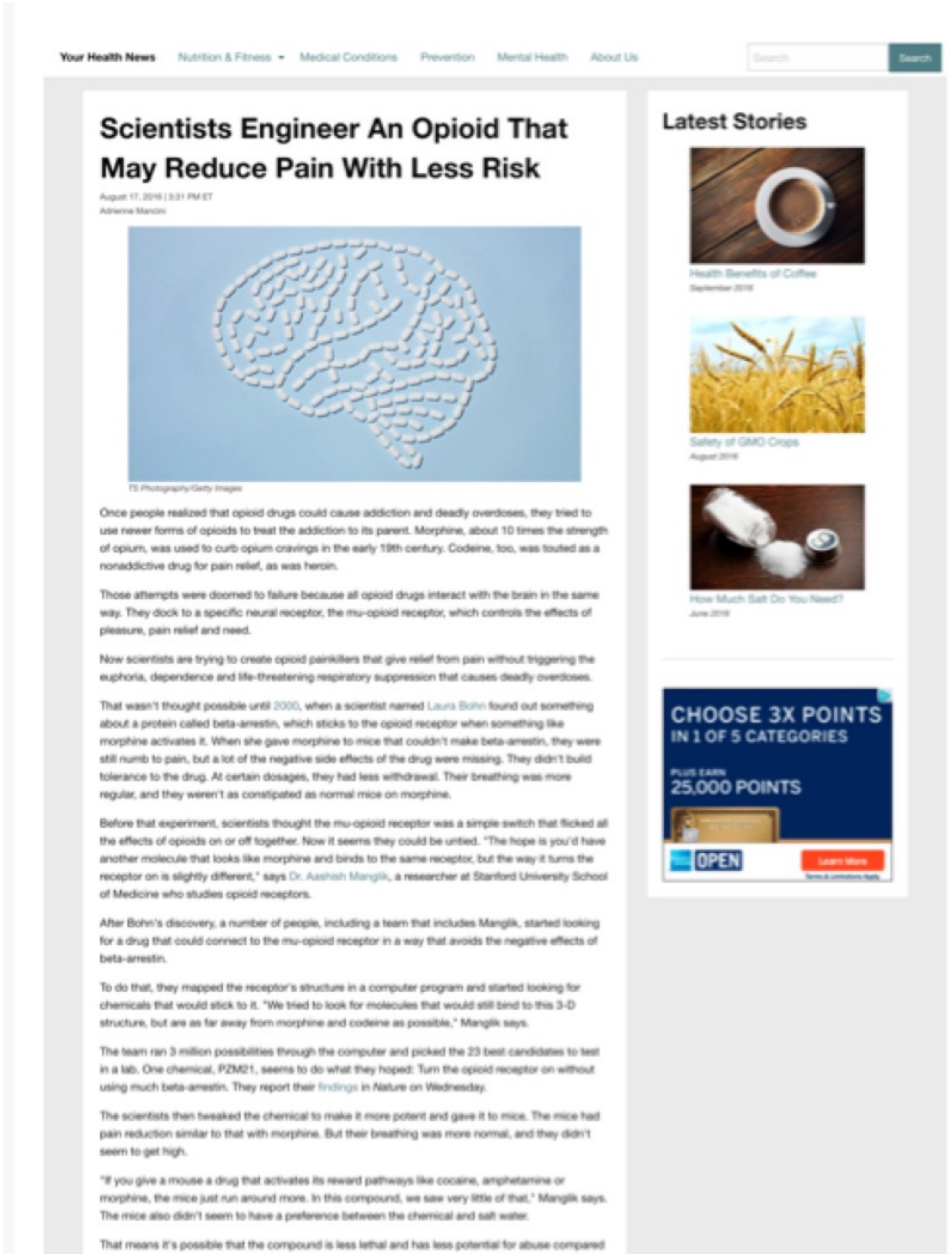
While badgers tended to dominate other species in the garden hierarchy, hedgehogs were also found to have more clashes than expected, the study revealed.

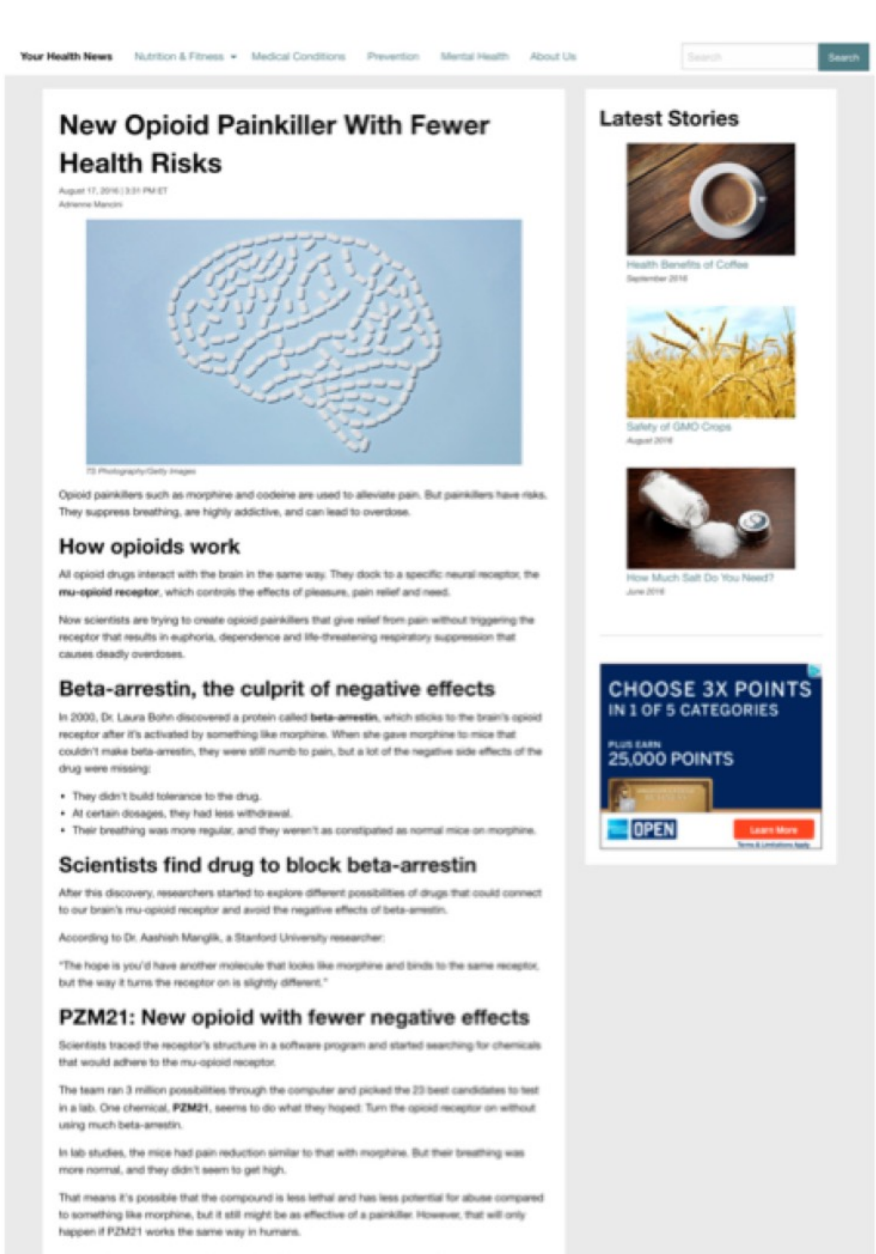
Aggressive and submissive behaviour among animals in the footage was found to be more common than neutral interactions – from 316 instances where animals were spotted together 175 ended in confrontation.

Animals were more likely to confront different species than their own. Cats and foxes were found to take a particular

Structure your writing – informative writing

- Help your readers to scan
  - Use sub-headings
  - Lists
  - Links
  - Quotes
  - Images





https://www.nngroup.com/articles/plain-language-experts/

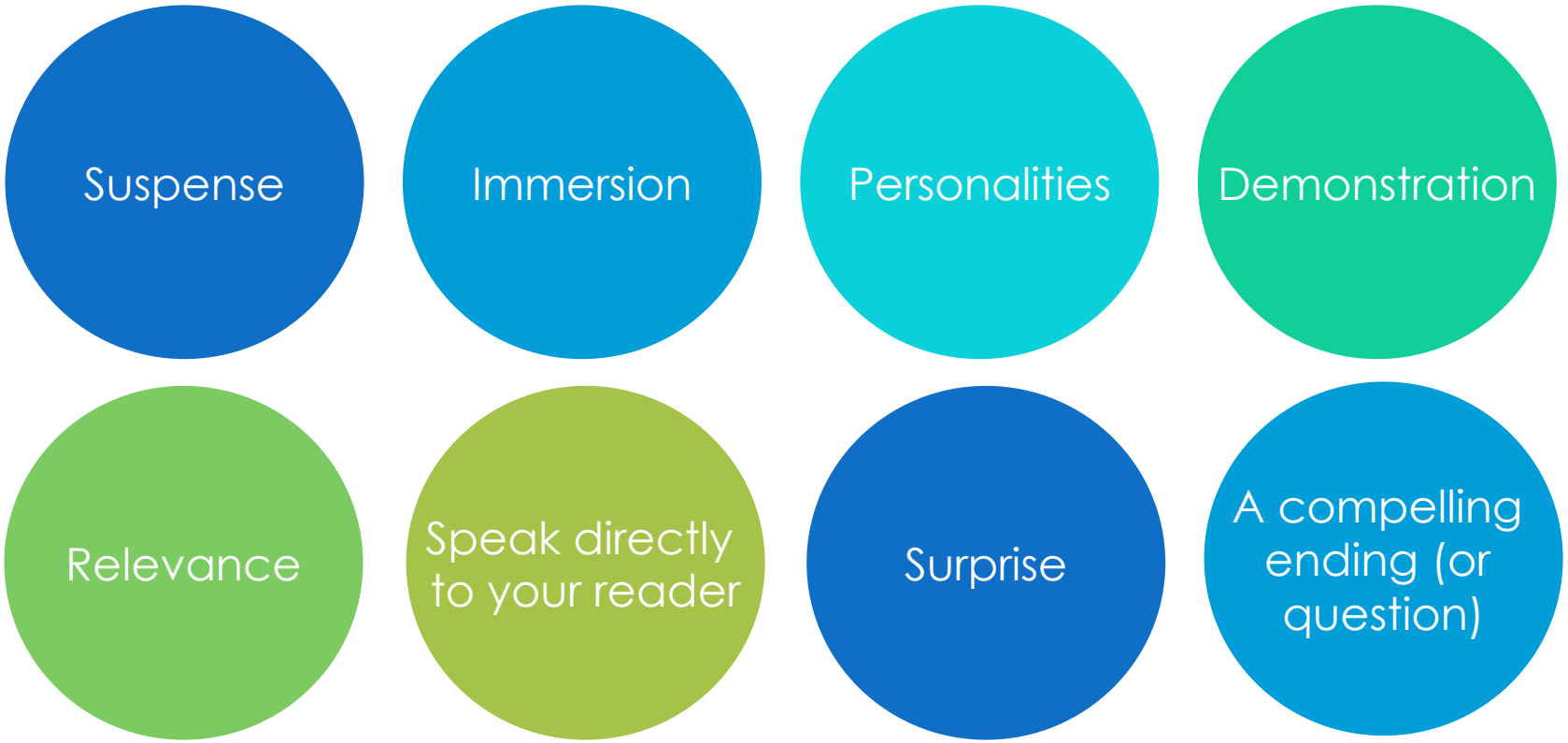
Capture attention immediately – think about your headline

- Use your headline to capture attention
  - Keep it short and simple – easy to understand
  - Grab attention – but don't oversell
  - Reveal your theme – tell a story
  - Front load with keywords
  - Take your time (do it last?)
  - 8–12 words

Storytelling techniques

Characters are at the heart of compelling story telling

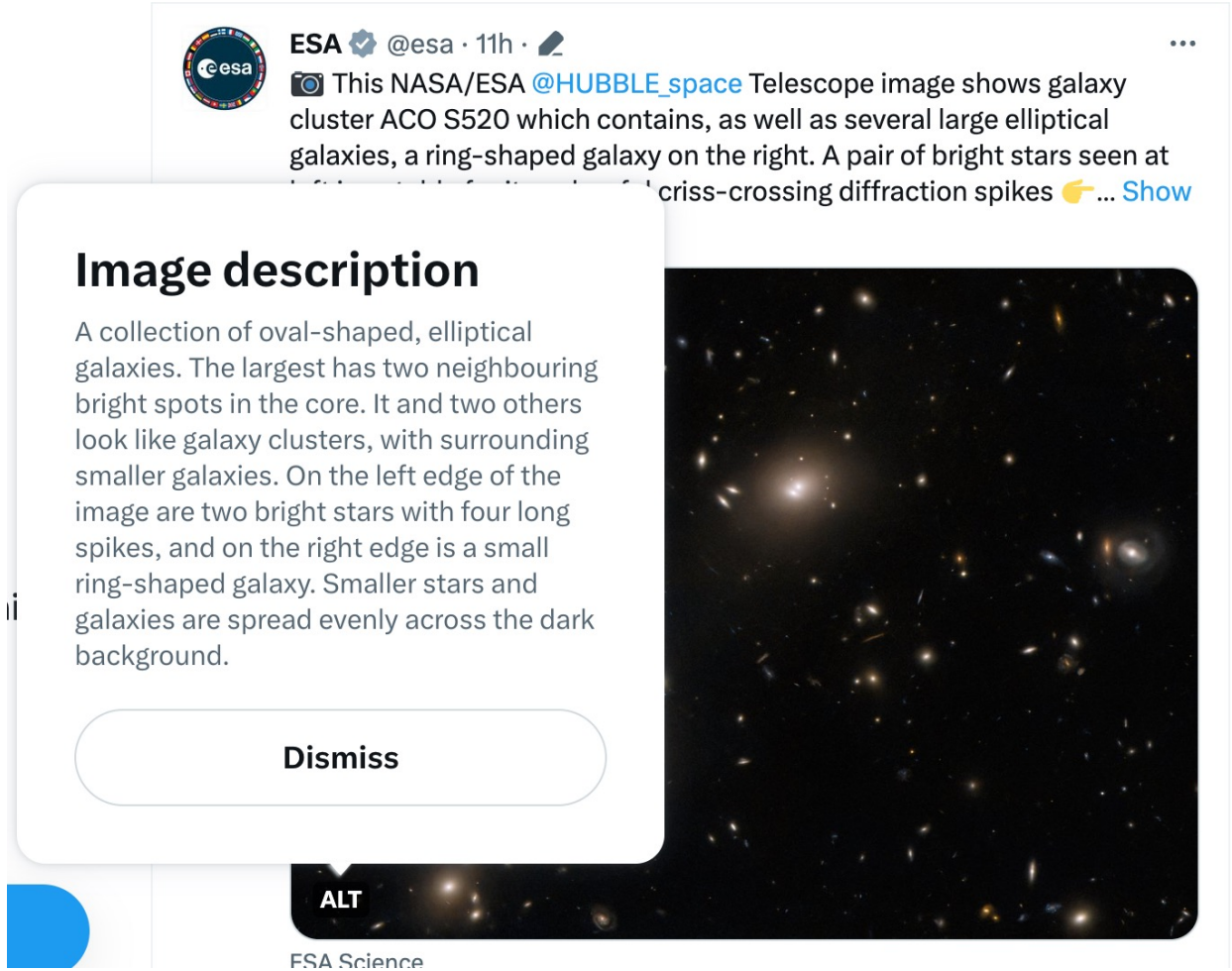
1. *A protagonist faces a problem*
2. *There is a journey / conflict*
3. *There is resolution – the problem is overcome*



Shorter form content – social media

- Even less space to capture attention!

- **Use camel case for multi-word hashtags**. Capitalise the first letter of each word to make hashtags more legible and prevent screen reader issues
- **Limit emoji use**.
- **Provide descriptive image captions**.
- **Don't embed content within images** without including the full text in the alt-text



What next?

- So what? Who cares?
- Calls to action
  - What do you want your reader to **THINK**, **FEEL** or **DO**?
  - Include an invitation to achieve that

Your turn

- Try adding some structure to your piece of writing
- What is the ‘call to action’?

Editing **techniques**

Editing and proof-reading techniques

- Remind yourself of what you set out to write – the purpose and outcomes
- Reverse outlines – post-it per paragraph. Summarize each paragraph –
  - Does the flow make sense?
  - Is it repetitive?
  - Does each paragraph smoothly connect?
- Is the call to action clear?

Editing and proof-reading techniques

- Use the spelling and grammar checker that is part of Microsoft Word
- Print it out and use a ruler to slow you down!
- Make it look unfamiliar by changing the font/colour
- Take a break from it or change location
- Read it out loud (or use text-to-speech software, such as the Immersive Reader on Word Online)
- Keep a checklist of common mistakes you make – and check them each time
- Ask someone else to review it

Pair writing and editing

- Start from the same page
  - What questions will your reader have?
  - What change/action are you trying to create?
  - What information do you have to include?
- One screen (or Google Docs online)
- One person – the subject matter expert – is in control of the keyboard and starts writing
- Second person asks questions, makes suggestions, ask abut particular words or phrases
- Swap occasionally

https://gds.blog.gov.uk/2016/09/21/it-takes-2-how-we-use-pair-writing/

Checklist

Planning your content	Writing your content	Editing your content
❑ What is the primary purpose of your content? ❑ Who is it for? ❑ Where will they read it? ❑ What is the call to action? ❑ Consider the 'news value' or 'storytelling approach'	❑ Can you cut excess words or paragraphs? ❑ Can you remove jargon? ❑ Can you simplify words or sentences? ❑ Have you added structure like subheadings and bullet points? ❑ Are your headings clear, front-loaded and include keywords?	❑ Have you completed a readability check? ❑ Have you asked someone else to read it? ❑ Is the main point clear immediately? ❑ Is the call to action clear? ❑ Do any terms need defining?

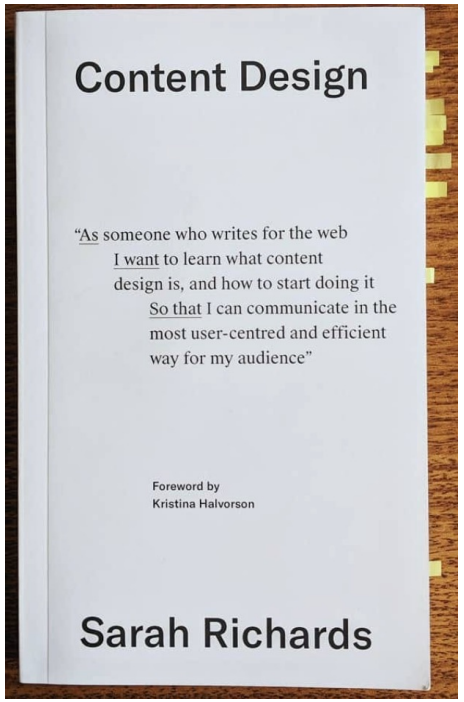
Your turn

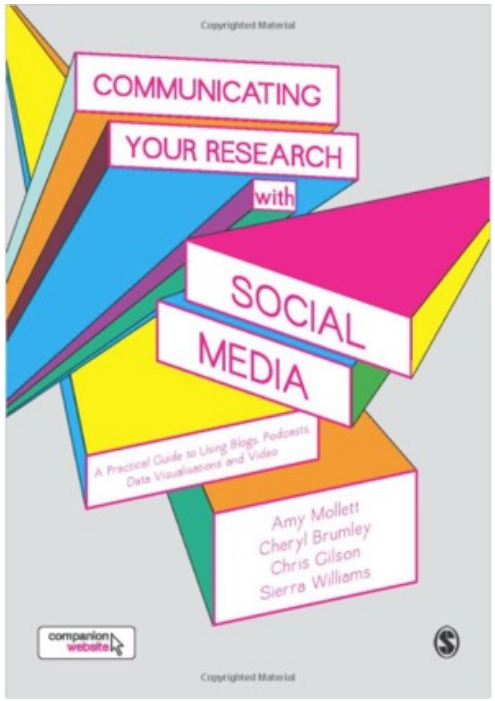
Resources for the **future**

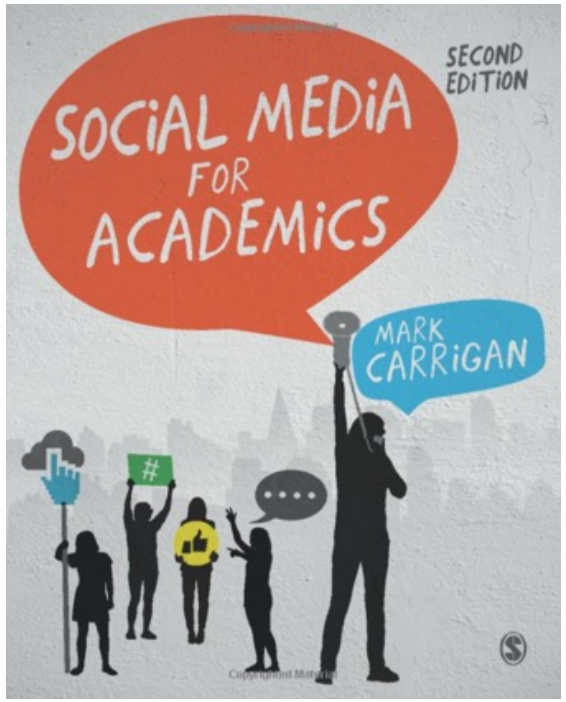
Resources

https://www.pamelaagar.com/writing-course
Password: Brighton

- https://readabilityguidelines.co.uk/
- https://www.gov.uk/guidance/content-design/writing-for-gov-uk







Thank you!

hello@pamelaagar.com