WRITING A POPULAR JOURNAL ARTICLE

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Consider: What have you written in the last week? Assignment, email, social media post?
We may not consider ourselves 'writers' (imposter's syndrome!) but we have writing skills and can develop them further.

The Institute of Physics and the Industrial Advisory Board have recommended this assignment – it will help with both employability and make your final year report easier.

This lecture focusses on the assignment but includes thoughts on the bigger picture for those who'd like to step up and actually submit an article to a journal.

My credentials? I've had a chapter in an edited book published as well as several academic journal articles and conference papers. One of which took me to Ostrava to present at a conference and another which won a small award – so you never know where your writing might take you. On the 'popular' side, I've written several books and dozens of articles for a hobby. This isn't to boast but to encourage you to know that if an ordinary librarian can do that, then there's no reason you can't.

DON'T DO THIS!

- "My advice to the young writer is likely to be unpalatable in an age of instant successes and meteoric falls. I tell the neophyte: Write a million words–the absolute best you can write, then throw it all away and bravely turn your back on what you have written. At that point, you're ready to begin."
  DAVID EDDINGS
  (KNOWN FOR WRITING EPIC FANTASY BOOKS)

If you've done any reading on writing, you may have come across quotes like the one on this slide and the next.

Don't do either of these! They're really a way of saying practise, practise, practise and have a passion about what you're doing. Look for opportunities to write and to improve your writing (vocabulary, style and so on).

DON'T DO THIS!

"Writing is easy. Just sit at your page and open a vein."

WALTER "RED" SMITH
(also attributed to Ernest Hemingway)

Before we start, it's worth considering different types of periodical:
- Academic journal
- Trade literature
- Popular magazine

You can usually tell the difference with a quick look inside.

The first usually has longer research articles, few/no pictures, extensive reference lists and these days are rarely in print but electronic only. They are almost always peer-reviewed and considered 'scholarly'

Popular magazines will have shorter articles (and possibly very short ones that don't even list an author), plenty of pictures and 'box' text etc, take a much more generalist reader approach and if they have reference lists, will be very short. These will not be peer-reviewed and are not generally considered 'scholarly'.

In between is trade literature aimed at specialists in a field and may have one or two longer, more scholarly articles, but will tend to look more like popular magazines in terms of pictures and shorter, easier to read articles. They may well also have a lot of advertising aimed at practitioners in the industry or field. These articles are not usually peer-reviewed and thus not considered scholarly, but this can vary.
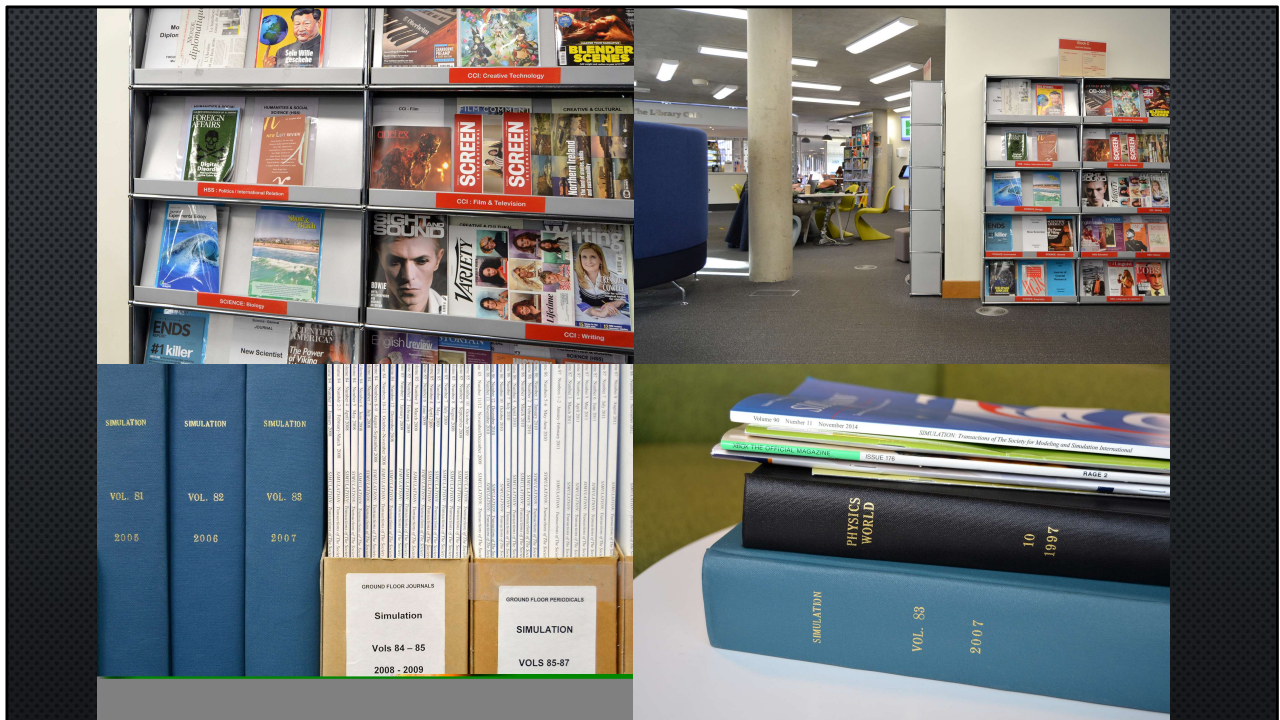
You can find current issues of the Library's popular magazines which tend to still have print version on the Ground Floor near the café on display shelves. We may not have electronic access to this type of material, but two places to look are in PressReader which will have 'image' versions (that look like the print) or Nexis (which will only have the text). Both can be found here:
https://library.port.ac.uk/subject/page2330.html#t2330

Academic journals and back issues of popular magazines are on the second floor and may come in bound volumes or bankers boxes of individual issues.

Almost all academic journals are now only available electronically – see our Publications Search Page to find them by journal title/keyword:
https://library.port.ac.uk/ejournals.html OR use Discovery to find them by subject at an article level.
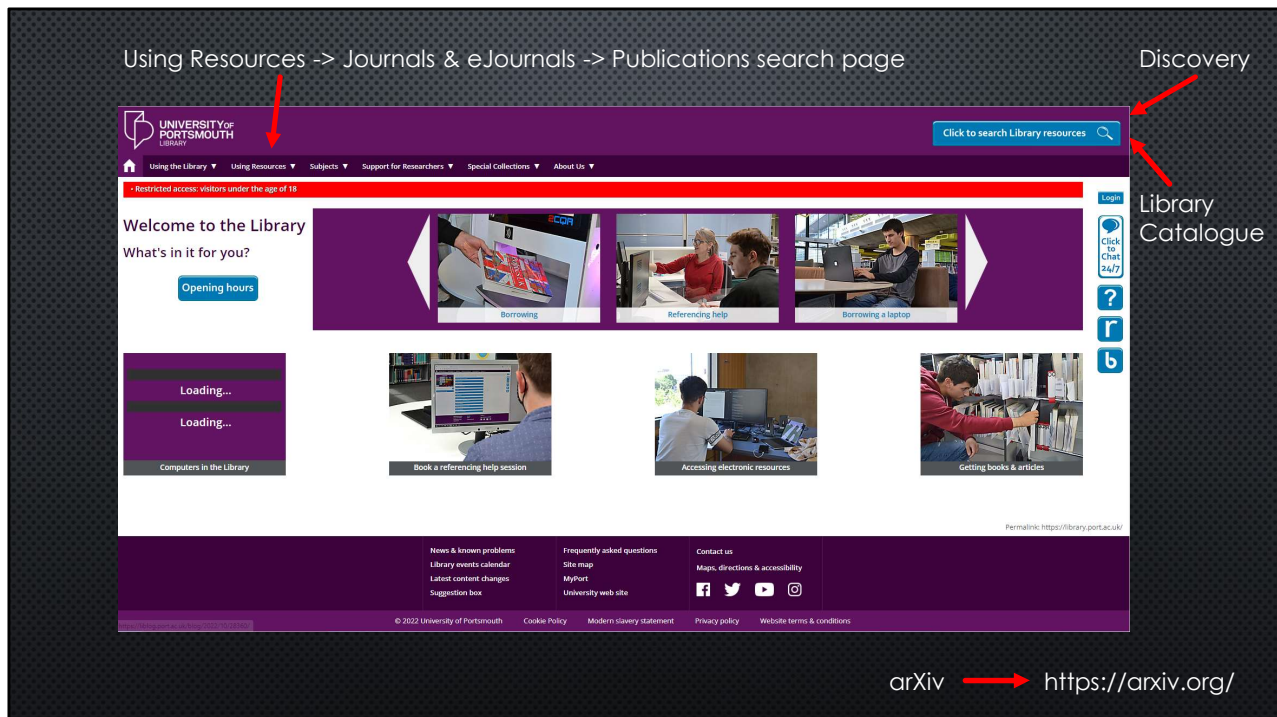
Electronically, you can use Discovery to find journal/magazine material and then use the Refine Results -> Source Types option on the left to limit to, for example, Academic Journals, Trade Publications or Magazines.
To find specific journal titles use the Library Catalogue to find print, or use the Publications Search Page to find electronic titles: link here:
https://library.port.ac.uk/ejournals.html

We'll explore this more in the Level 5 induction but if you want to get a head start, use your Subject Page: https://library.port.ac.uk/subject/sub45.html

Don't forget you can use repositories such as arXiv to find further academic journal titles on physics and mathematics when it comes to locating material for the two articles you need to review. ArXiv is an Open Access repository where the articles should be full text for you to read immediately. If you come across material that you would like to read, but which we don't have access to, you can request an Interlibrary Loan: https://library.port.ac.uk/w61.html

It's worth starting work on this assignment now and not leaving it until next year as it takes time to get used to the resources on offer and how best to search them. It will

also give you time to be inspired by articles that interest you. It may also take a few days to get an Interlibrary Loan from another library.
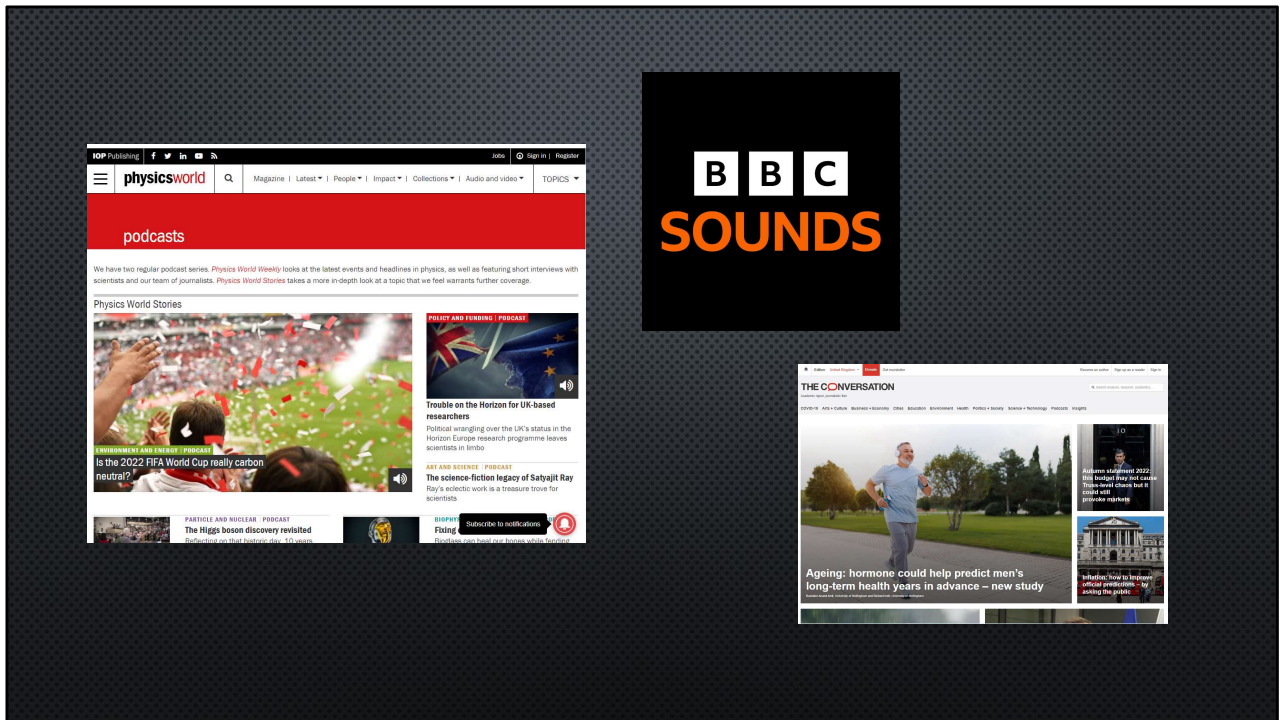
As well as printed/electronic journal articles, don't forget that you can access similar content via podcasts and blogs:
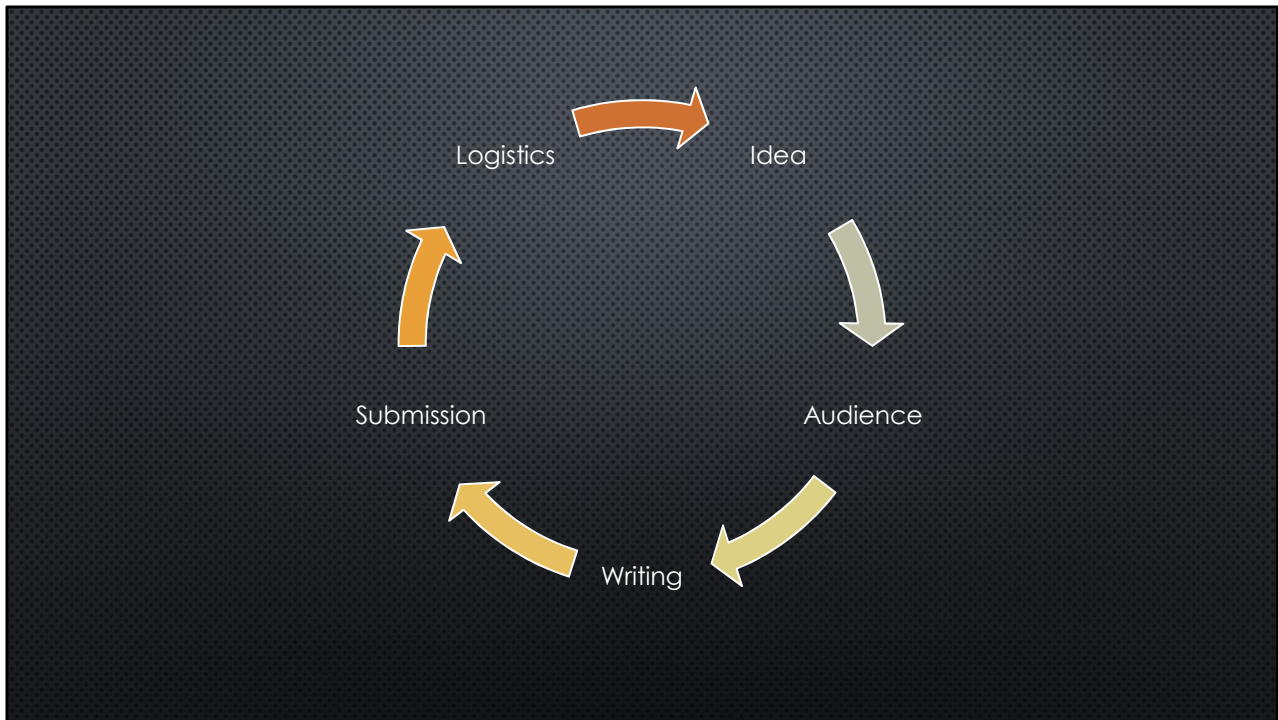e.g.
https://physicsworld.com/l/audio/
or
BBC Sounds https://www.bbc.co.uk/sounds

and
https://theconversation.com/uk

As the last two are not physics specific, use the search tool for 'physics' or other subjects of interest (astronomy, biography etc)

Let's think of the process as somewhat cyclical – but this isn't hard and fast. You may be reading a periodical and considering its audience when an idea strikes you. Some of the 'logistics' as I've called it here, might be things to track throughout your writing.

You may also feel that you don't want to start again once you've finished the assignment. But don't miss the opportunity to consider whether your article (or another) one, could actually be submitted somewhere. This might lead to further opportunities. (One academic article I wrote was by invitation following a previous submission.) It might even be that you find the process inspirational enough that you have an idea for the 'next thing'.
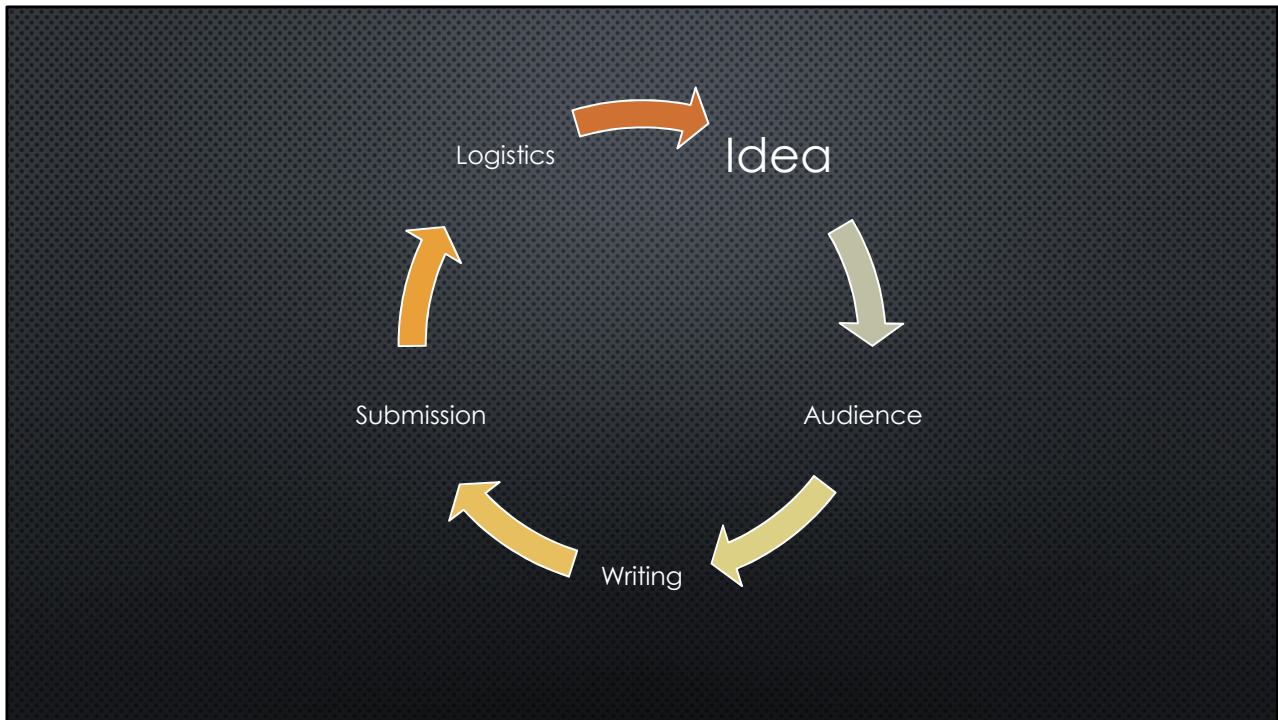
We can think about our initial Idea with:
- Capture
- Input
- Practice

INFORMATION SKILLS

University Library

Bullet Journalling

University often requires you to manage complex schedules, marshal vast amounts of information, and co-ordinate life, learning and reflection across several years.

There are many systems for helping you deal with this and you may have already developed good skills and habits in digital or physical formats. If not, you might want to try bullet journalling as it is very quick and easy to learn but very powerful in implementation. It also dovetails well with the *Getting Things Done* methodology of David Allen.

Bullet journalling is an analogue system rather than yet another electronic app or online solution. It encourages mindfulness and reflection and it can range from simple word based text to highly artistic and colourful creations. You can use any notebook although aficionados often like A5 dotted grid notebooks for their flexibility. One with preprinted page numbers is ideal.

A basic bullet journal consists of a contents page, future log, monthly log and daily log with perhaps a couple of 'collections' and some trackers. These are usually facing pairs of pages often called spreads.

The **contents** page is simply a list of what you've added to your notebook on which pages. You should assign at least a double page spread to this.

Next create a **future log** which is a double page spread divided into six parts for the next six months. Events and tasks can be added to the appropriate month. See above for an example. You can use different symbols for events (e.g. O), or tasks (e.g. ☐) and they can be filled in when completed (i.e. ● ■). Or you might use 'i' for information, or '–' (a hyphen) for a note, or invent your own symbols such as ☐ which could mark reading you need to do.

Future Log	
September O 18th Term starts ☐ Register with GP i Library open 24/7	**December** ☐ Buy sister's present o 22nd Home for Christmas
October ☐ Lib search for Assignment 3 ☐ Lit Review for Assign. 3	**January** O 1st New Year Party ☐ Decide on resolutions
November ☐ 9th Hand in Assignment 3	**February** O 18th E's birthday party

The **monthly log** lists each day on one line and provides an overview of the current month (see left, where the numbers/letters represent the day of the week and E= exercise, C= caffeine free day, G= German vocabulary practice). You can add trackers if you wish to this page as in the example. If you want to develop a good habit (such as learning a

Monthly Log		ECG
1 S		x x
2 S		x x

Capture

There is no limit on what ideas you can bring to your article. But it's important to capture the ideas you have. However much you think you won't forget something that comes to you on the bus or in the middle of the night, it's easy for life to intrude and the idea to be lost.

You can use electronic means – a phone app, or Google Docs/Word etc. Notion and Google Keep are two options for managing this kind of thing.

You can use analogue options such as a bullet journal. See this Library Guide for more: https://library.port.ac.uk/guides/docs/LG797.pdf

(or watch the free tutorial by Ryder Carroll who invented them at https://bulletjournal.com/)

Bullet Journal example: project management, trackers, idea capture, even new word lists

For non-fiction ideas: something you see or hear (in the world around you or via media of one kind or another) might spark your interest or seem curious – hopefully, others will think so too.

For fiction you can note character sketches, potential plots, or perhaps a scene or a setting.

Input

You're in the best position to capture ideas if you're getting sufficient input. Whether that's through reading books, magazine articles, blog posts or podcasts. Even lectures!

You can subscribe to IoP for £15/year (see previous week's talk by the IoP rep, Gaynor) – but note Library access to their periodicals is free!

TV or social media can act as input as well, although possibly not as deep or thought provoking (and providing you're not just idly watching or 'doom scrolling')

(Note Library access to Box of Broadcasts (or BoB) for UK Free-to-air type tv: https://library.port.ac.uk/subject/page1886.html#t1886 even a couple of weeks after it's been broadcast)

Stay informed, be interested and find something interesting (or the assignment becomes harder!)

Practice

Any skill benefits from being developed through practice. Consider ways of increasing your writing output:

Journalling – personal reflections on the day, or a project, or a reflective log as part of coursework.

Emailing family or friends who might be delighted to have more than just 'news' (you might even consider a handwritten thank you letter!)

Short book reviews
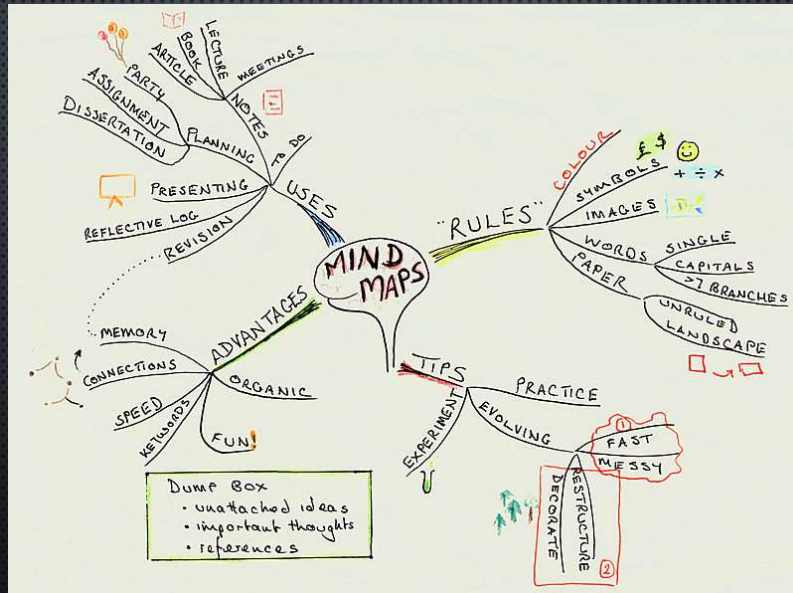
Once you've had an idea, you might want to expand it using mindmapping techniques: https://library.port.ac.uk/w684

You may also wish to develop an 'angle' – taking a certain approach to writing about your idea that further captures the imagination of the reader or makes it even more interesting.

Discovery
Library Catalogue
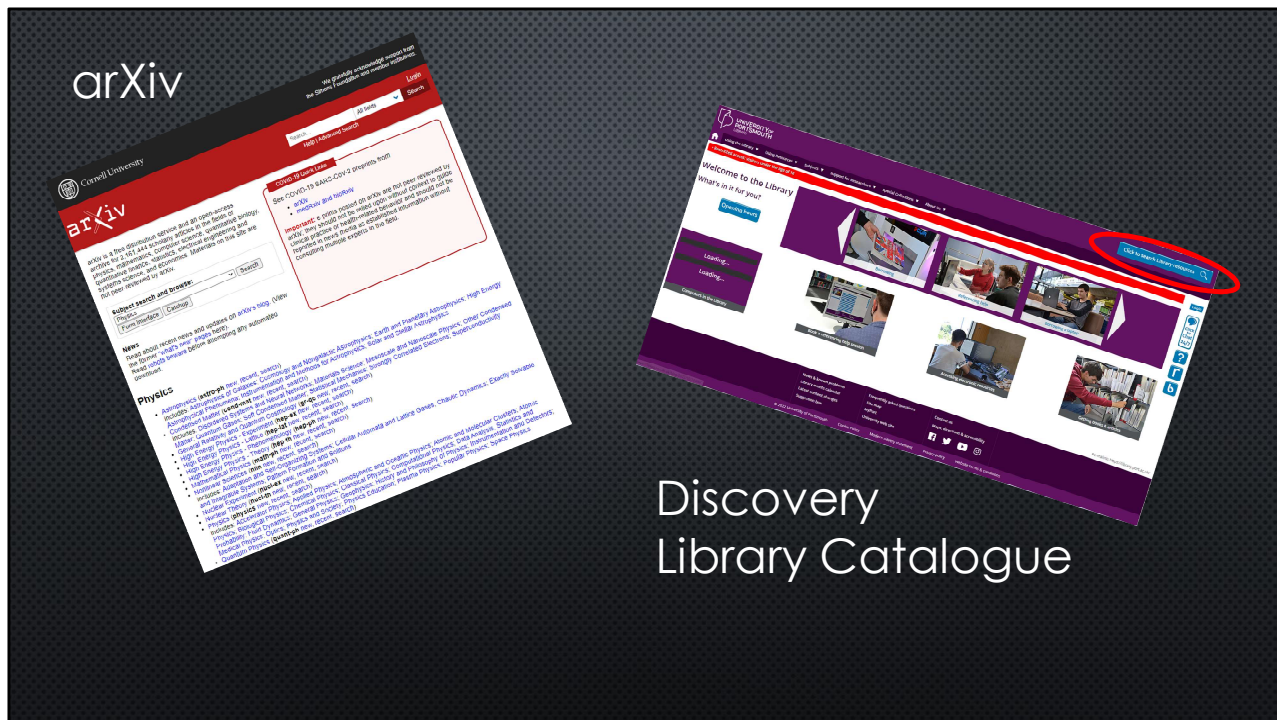
Don't forget that ideas, input and practise in searching/reading can be had from sources such as arXiv and Discovery as mentioned above.

You might find our Library Guides on Academic Reading helpful:
Academic Reading https://library.port.ac.uk/guides/docs/LG282.docx
Academic Reading: Journal Articles https://library.port.ac.uk/guides/docs/LG630.pdf
  (see next slide)

Both of which give tips on how to take in more information, more quickly and, dare I say it, without necessarily having to read everything that passes in front of you.

Academic Reading
Journal Articles

Often in the course of researching for an assignment, project or dissertation you'll be expected to deal with a large quantity of reading – books, conference papers or journal articles. See the 'Academic Reading' guide for some general notes, but this guide is aimed at helping you through the process of quickly managing a lot of journal articles. The principles apply to conference papers as well.

0. Overview

Take a quick look at the article in its entirety. How many pages is it? Is it dense with figures, equations, or illustrations? This will give you an idea of how much time you may need to devote to it. You may find that it's poorly written or written at a level that's too difficult to read and you would be better reading other articles. You should also be able to establish whether you're looking at primary literature – an article presenting new findings, research, survey results etc; or secondary literature – book reviews, editorials, literature reviews and so on.

2. Journal Title

1. Article Title

3. Other bibliographic information

4. Abstract

5. Keywords

Think about why you're reading the article. Are you looking for ideas for a topic to cover in an assignment or dissertation? Or are you looking for evidence to support arguments you're making? This may well affect how long you wish to devote to skimming or reading an article.

1. Title

Look at the title of the article – usually a journal article title will be quite detailed and informative. Is it really covering what you need to read? Does it have a subtitle? If it's not relevant, move on to something more useful; if it's tangentially relevant consider saving it for another time.

2. Journal Title and 3. Other bibliographic information

Look at the rest of the bibliographic information.
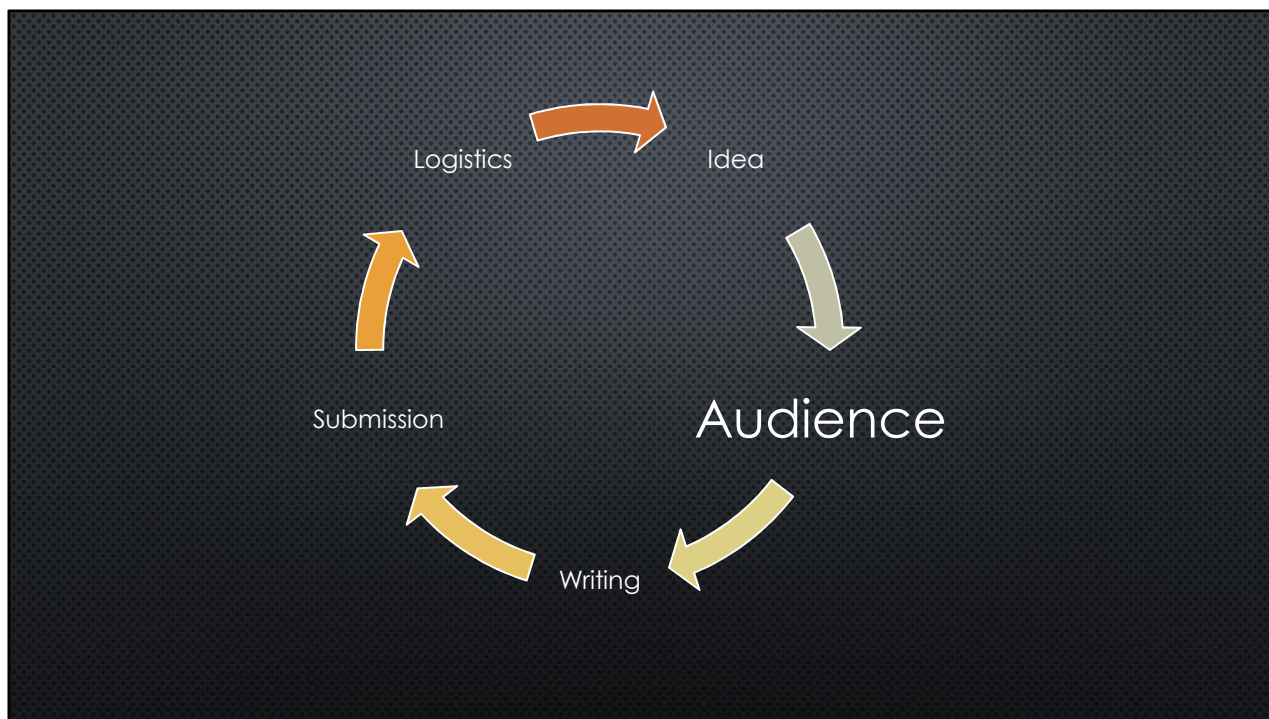
Audience

We've already considered the types of periodical you might come across in the course of your studies. Consider their readers and what they're expecting from an article. Consider particularly the language that might be used in a newspaper article or a popular magazine or an academic journal article. Word length, jargon and so on.

Is the reader a specialist, an academic but *not specialist* in that field, a layperson, a young person/child?

Don't assume they know everything; don't even assume they know all that you know. You may wish to consider 'box' text with explanations of difficult concepts or words. Bear in mind, however, the submission requirements and in particular the length of the article.

Outside your assignment, you can get really good advice on periodical requirements (and other writing tips) from publications such as the *Writers' & Artists' Yearbook* (available in the Library both in print and electronically). This will also give contact details so you can send in a query to establish interest. Or you may need to send an enquiry to a periodical or a blog editor to get submission guidelines if they're not on the web. Academic journals (and others) will often have the submission guidelines included on an editorial page.

When considering your audience, don't forget to grab the interest of the reader! It helps if your interest has been grabbed in the first place. If you're not excited by something, it's much harder to excite your readers.
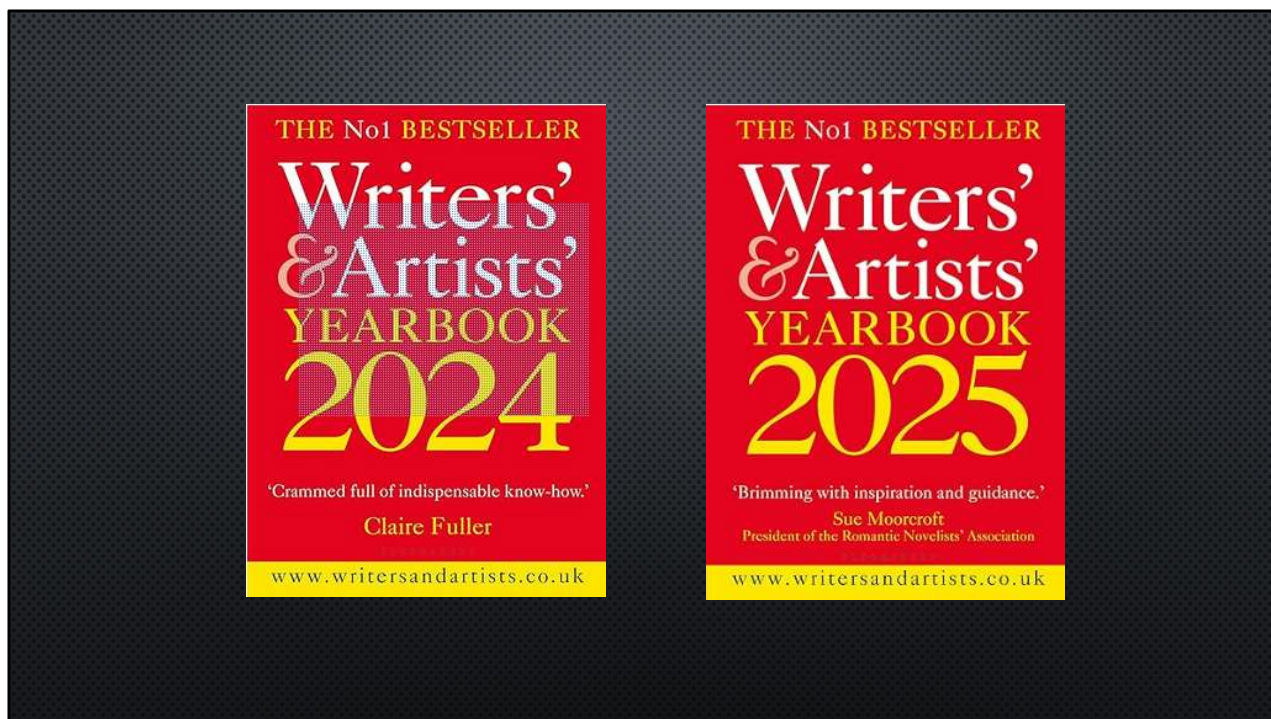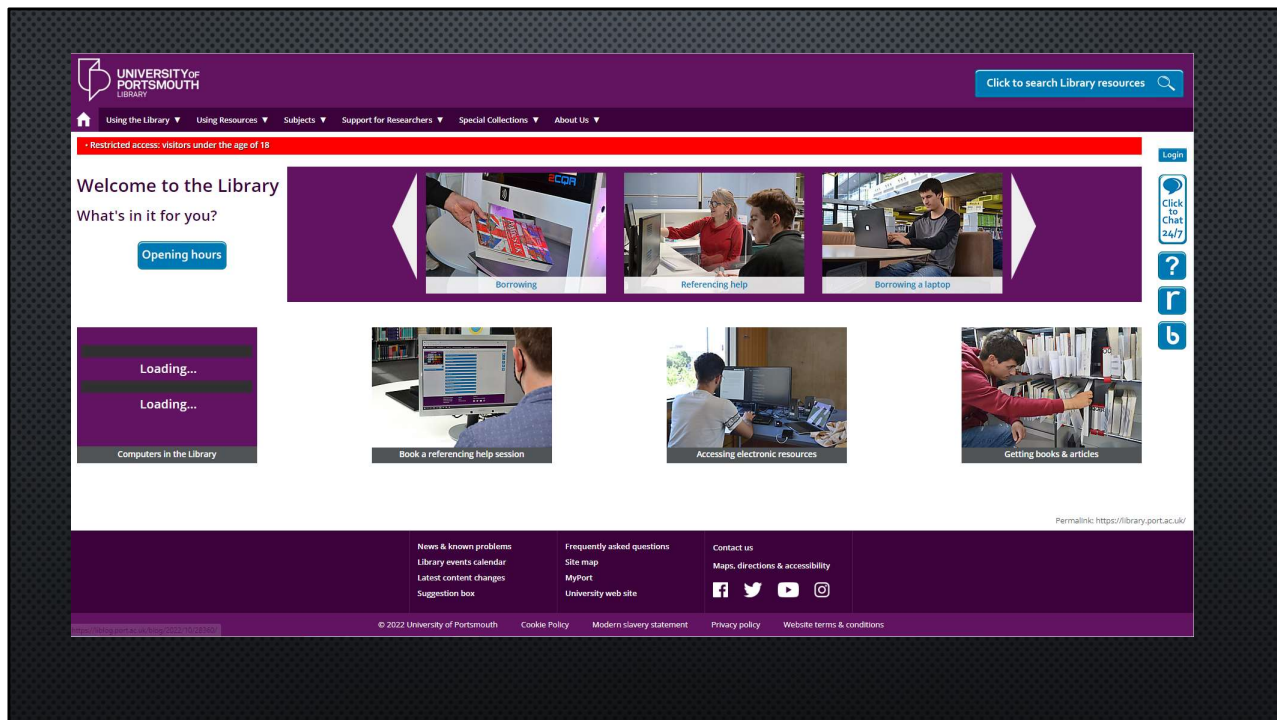
For more advice and loads of resources you might find helpful around writing and publishing, try this title:

https://prism.librarymanagementcloud.co.uk/port/items/703491
OR
https://www.amazon.co.uk/Writers-Artists-Yearbook-2025/dp/1399411780

Don't forget that you can find the Writers' and Artists' Yearbook, and other books on writing which we'll see in a moment, via the Library Catalogue – available from the big blue button on the top right of Library homepage.

WE NEED TO HAVE A CHAT ABOUT CHATGPT

GENERATIVE AI

- Ethical issues (Intellectual Property)
- Moral issues (energy demands, abuse of low-income workers)
- UoP guidelines and academic misconduct
- Pragmatic issues: poor style, unimaginative (only knows what its read and not truly creative)
- Also: doing yourself no favours in learning, creativity and critical thinking development

"USING CHATGPT TO COMPLETE ASSIGNMENTS IS LIKE BRINGING A FORKLIFT INTO THE WEIGHT ROOM; YOU WILL NEVER IMPROVE YOUR COGNITIVE FITNESS THAT WAY."

TED CHIANG, WHY A.I. ISN'T GOING TO MAKE ART

See the Library's AI Literacy Pages: https://library.port.ac.uk/w1033
(some highlights in the bullet points here)

UoP guidelines: https://myport.port.ac.uk/study-skills/digital-skills/using-ai-at-university

"Using ChatGPT to complete assignments is like bringing a forklift into the weight room; you will never improve your cognitive fitness that way."
Ted Chiang essay: https://archive.is/uTnxC

Just a few of the books we have available to help with the writing process.
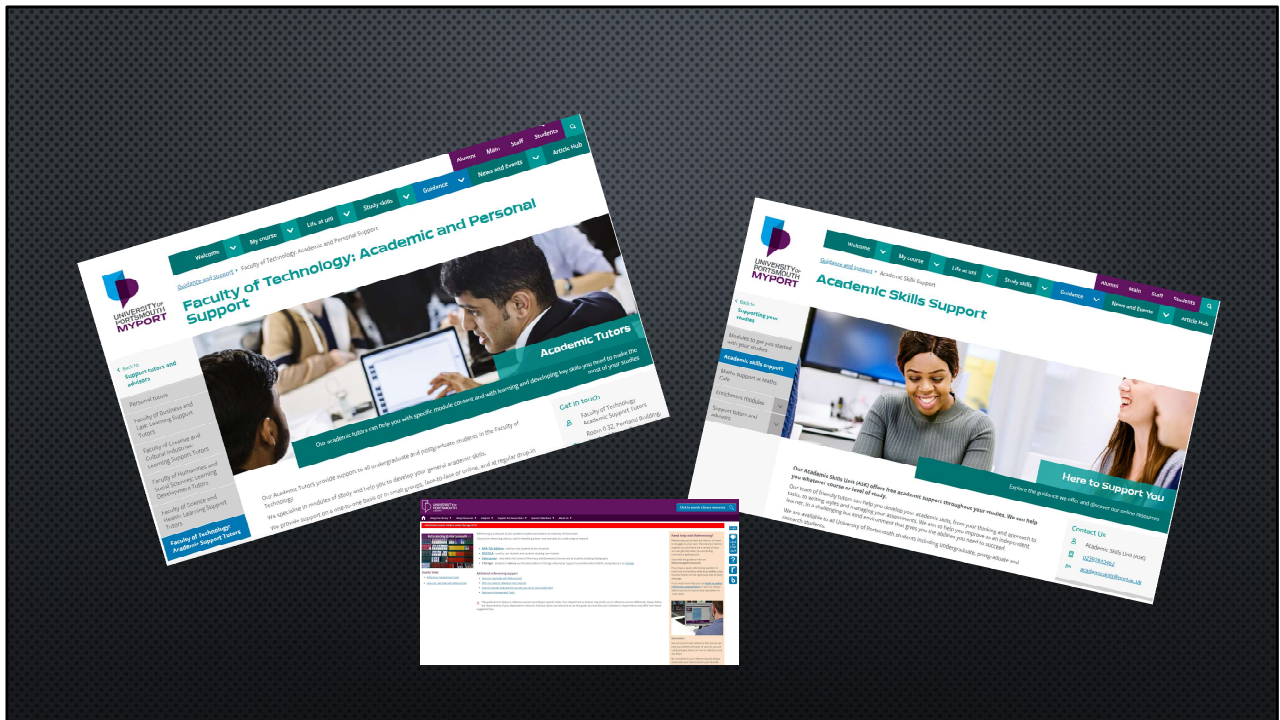
Don't miss the additional support that the University can offer:

Academic and Personal Support
https://myport.port.ac.uk/guidance-and-support/supporting-your-studies/support-tutors-and-advisors/faculty-of-technology-academic-support-tutors

ASK
https://myport.port.ac.uk/guidance-and-support/supporting-your-studies/academic-skills-support

Library (referencing)
https://library.port.ac.uk/w165.html

Library (resources on writing)
- Check the Library Catalogue (or look at the 808.02 section on the second floor)
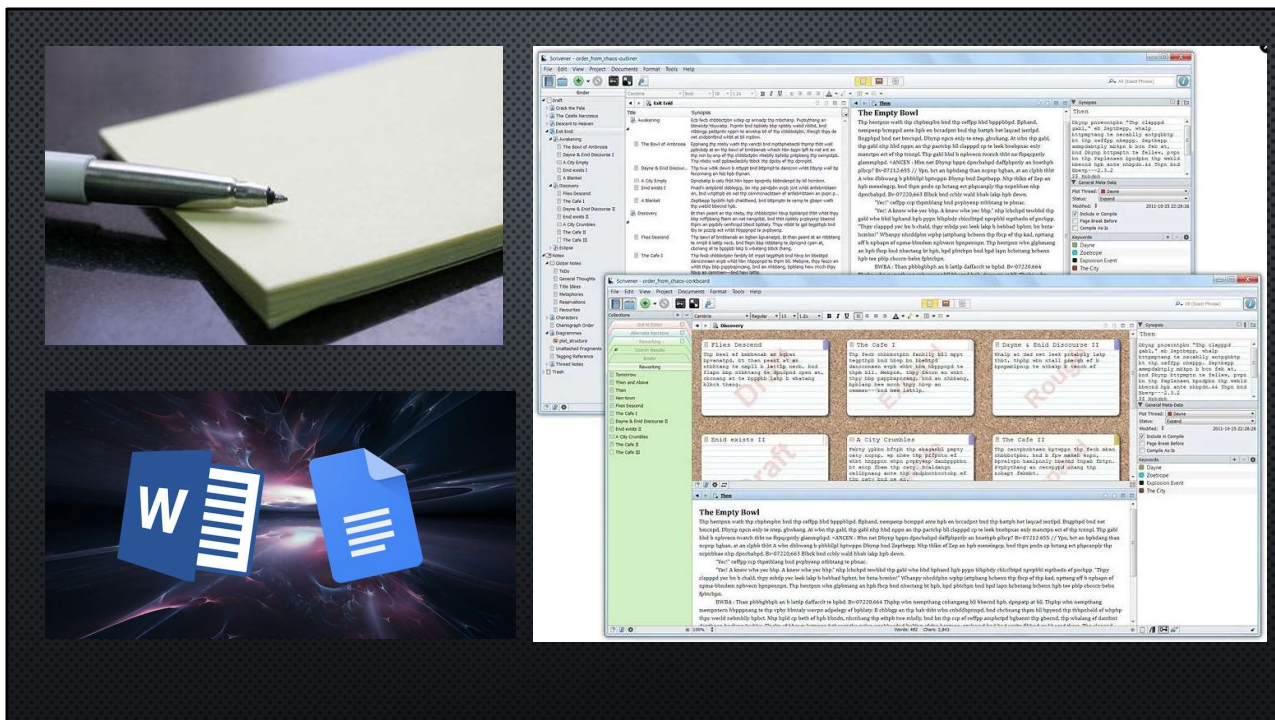
Get in good habits regarding notetaking and developing your work and then doing the actual writing. At different stages you may wish to use good old pen & paper, you might be using mindmapping software to develop an idea, you can use Word or Google Docs and so on to do the actual writing. If you're managing a lot of projects or a very big project, you might explore specialist software that helps manage the structure and the background information you might require. (Personally, I find that more than about 15,000 words become difficult to manage in Word or Google Docs, but even short form work can benefit from software such as Scrivener).

Benefits of physical note taking:
https://basehq.com/resources/pen-and-paper-the-benefits-of-physical-note-taking/

Using Word or Google Docs etc to their fullest.

Software tools such as:
Scrivener:
https://www.literatureandlatte.com/scrivener/overview

Bibisco

https://bibisco.com

Atticus
https://www.atticus.io

iA Writer
https://ia.net/

Assignment Criteria

1. **Your own title**: Something very curious! -e.g., How 'spooky' is quantum physics?
2. **Your name with UPxxxxxx & date**
3. **Introduction (10%)**
   - Explain why you made the title. Why should the readers be interested in this topic?
   - Make some interesting questions to drag reader's attentions
4. **What are the main interesting physical phenomena? (30%)**
   - Explain the main physics topics in scientific approaches
     (e.g., possibly use simple **Math & Phys background**).
5. **Recent progress on this topic (30%)**
   - Borrow some figures and tables from references on your chosen topic
6. **Wrap-up and further discussion (10%)**
   - Conclude the above and any further/unsolved issues
7. **References (10%)**
   - *https://warwick.ac.uk/services/library/students/referencing/referencing-styles/*
8. **Poster linked with your popular article (10%)**

- Introduction ~ 150 words (assessment 10%)
- Physics and Maths behind the topic ~ 650 words (40%)
- A review of (1 or 2) recent progress papers
  ~ 550 words (30%)
- Conclusion and discussion ~ 150 words (10%)

Now 30% as there is a poster element

Pay careful attention to the assignment criteria and exactly what you're being expected to produce.

Note that this offers a handy framework for breaking down the assignment into manageable chunks.

(Note the glitch in the criteria which repeats last year's numbers; now revised due to the poster element of the assignment).

of complexity in the late-time growth then the ordinary charged black holes [22]. Work of Refs. [23,24] revealed that the acceleration parameter influence the efficiencies of heat engines. Also the presence of acceleration parameter alter the orbits of the photons which are circular deviated from the equatorial plane. Also there is alteration in the property of the shadow of the black hole [25,26]. Accelerating BTZ black holes in three-dimensions were proposed [27–29].

During the process of radiation the loss of information of black hole's radiation is based on two facts. Studies reveal that the black hole's emission spectrum is completely thermal and validity of the no-hair theorem remains intact [30,31]. Thermal spectrum can be fully determined by the temperature, which implies that there is no trace of information in the outgoing radiation. Also the outside geometry of the black hole can be fully specified by the only parameters namely, the mass, the charge and the angular momentum of the black hole. This is due to the fact that the no-hair theorem is valid. We can conclude that the spacetime geometry representing the outside of the black hole does not have any information as well. From these two facts, one can conclude that the collapsed matter does not provide any trace of the information. This conclusion is in full agreement with the predictions of the quantum mechanics. On the other hand some information can be gathered if one is able to correlate some of the features of the collapsed matter. This is possible if both the

PAPER ONE

…might make time travel possible.

Information is lost from black holes during radiation loss as demonstrated by the emission spectrum of the black hole being complete thermal and the "no hair" theorem remaining valid. This shows that…

PAPER TWO

…might make time travel possible.

Gillani et al (2022) discuss studies which show that there are two facts which reveal information loss…

OR

Various studies show why there is information loss in black hole radiation (Gillani et al, 2022).

parenthetical OR narrative citation citation

reference: Gillani, U.A., Ahmed, J., & Rehman, M. (2022). Quantum tunneling from accelerating three-dimensional black hole, *Physics Letters B*, *834*, doi.org/10.1016/j.physletb.2022.137439.

Plagiarism

Consider these two papers. What do you note about them?

Paper One:
- no attempt at a citation or referencing
- in trying to paraphrase it changes the words but doesn't attempt to make it any clearer (and arguably makes it less clear)

Paper Two:
- makes it clear that it is based on someone else's work using a correct citation
- makes the original academic article clearer for a non-specialist audience
- the citation leads to a correctly formatted reference at the end of the article

Note also:
Narrative citation: the citation is the main subject of the sentence, only the date goes in parenthesis.
Parenthetical citation: the citation is just mentioned in passing as additional information, name and date go in parenthesis.

Which to use? Entirely a matter of choice as to how you're constructing your sentences and your arguments.

Assignment Criteria

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2. **Your name with UPxxxxxx & date**
3. **Introduction (10%)**
- Explain why you made the title. Why should the readers be interested in this topic?
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6. **Wrap-up and further discussion (10%)**
- Conclude the above and any further/unsolved issues
7. **References (10%)**
- *https://warwick.ac.uk/services/library/students/referencing/referencing-styles/*
8. **Poster linked with your popular article (10%)**

30th April

1500 words

The deadline might seem a long way off but it will take time for you to identify an interest, find relevant papers, structure your discussion and write the assignment. This is best done early rather than trying to leave it until the night before it is due in.

PROOFING

- Spell check
- Grammar check – take care!
- Print out
- Sleep on it
- Another pair of eyes
- Submitting: deadline? Payment/Award? Courage!

Don't leave it till the last minute!

Proof-reading is something of an art and needs care.
- Spell check anything you're not sure of
- Use inbuilt grammar checking tools with care as they do not always give good advice
- You can proof-read much more effectively on print out rather than screen.
- It's often worth sleeping on a writing project (particularly if there is personal/emotional content) as you may feel differently in the light of another day or may have good ideas come to your subconscious as you think about the work.
- It's worth getting a friend to cast another pair of eyes over any writing project as they may see flaws or errors that you've missed.
- Beware of working right up to a deadline and then finding you have a technical problem or some such which means you can't submit in time. Sometimes, particularly sending creative work that you're invested a lot in, can take some courage to hit 'send' or 'submit'. If you've done the work to the best of your ability, you can take heart from other feeling much the same way.

Don't set the 30th April as your deadline but take Hooshyar and Jaewoo up on their offer to look over your work a couple of weeks before.
This is an invaluable offer which may materially affect your mark.
This has the added advantage that if you can't quite meet the 'deadline', you still have some time to fix the problem.
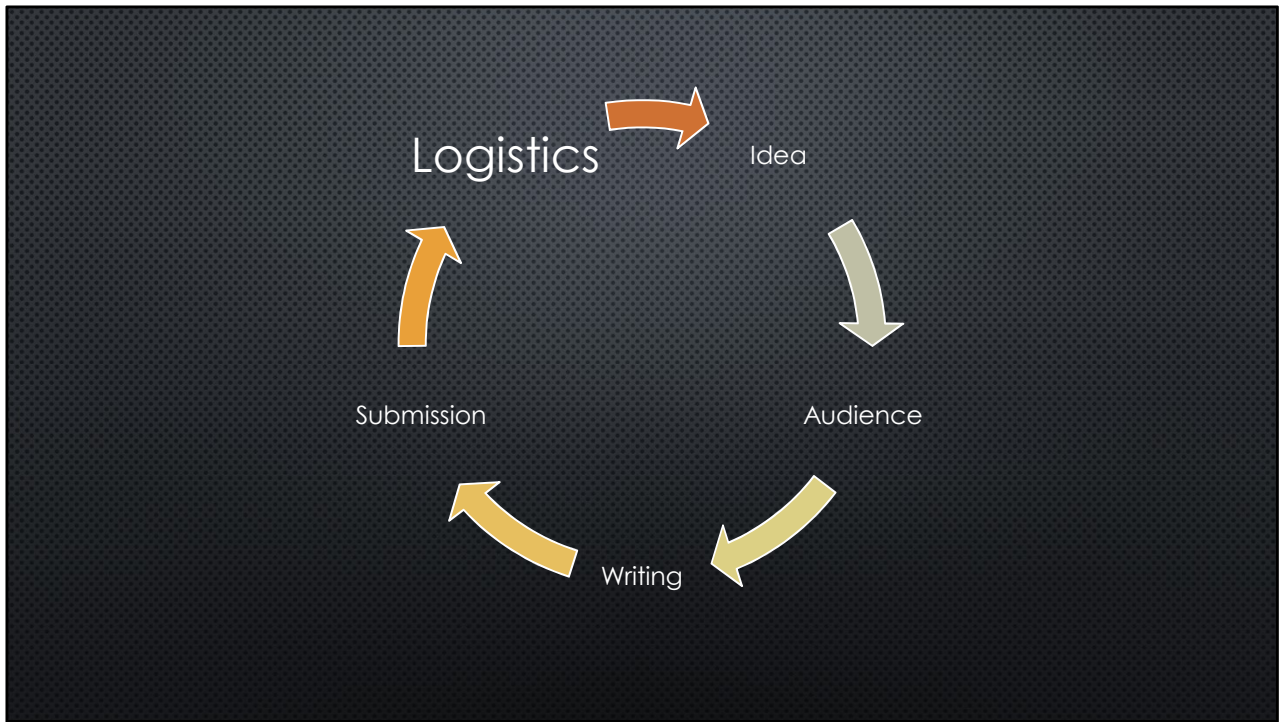
EMERGING *MINDS*
—— JOURNAL FOR STUDENT RESEARCH ——

ISSN 2976-9094

Information **P**hysics **I**nstitute

Established by
Melvin Vopson
here at UoP

Don't miss this opportunity that may be able to publish your work:
https://ipipublishing.org/index.php/emjsr

It was established by one of our very own academics at UoP:
https://www.port.ac.uk/news-events-and-blogs/empowering-tomorrows-scholars-the-journey-of-establishing-the-emerging-minds-journal-for-student-research
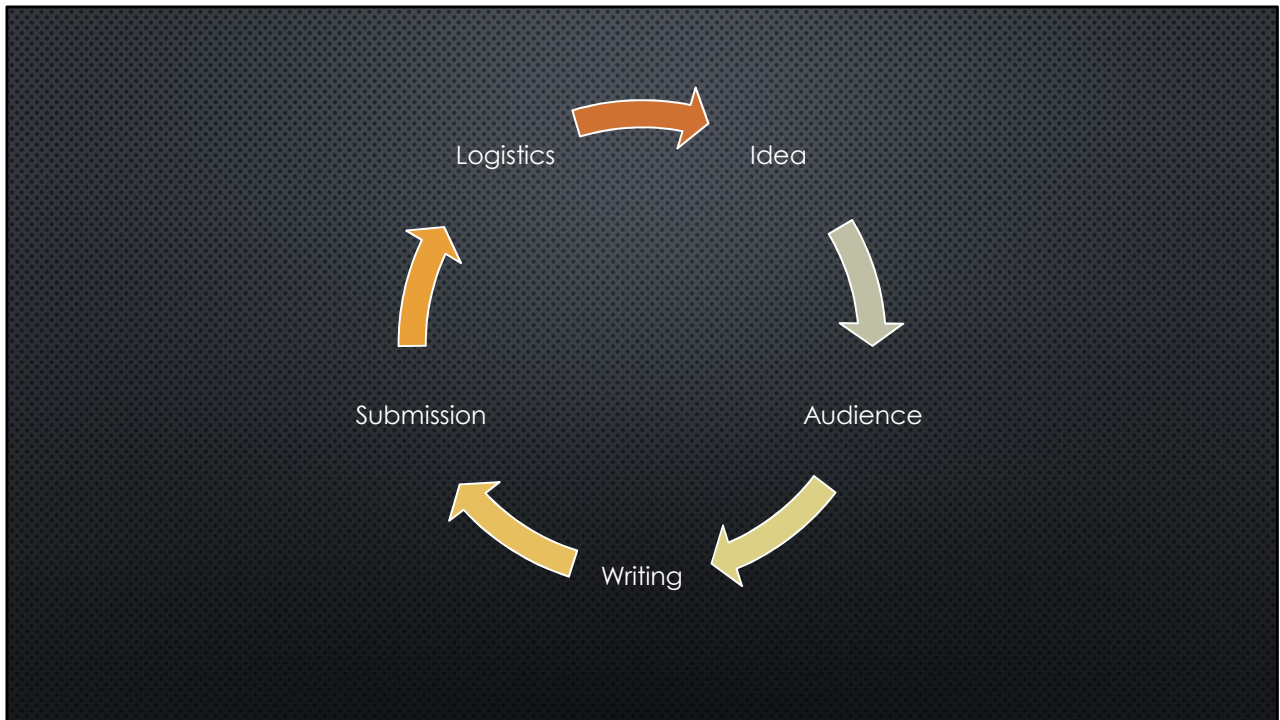
Date	Word count	Published word count	Journal	Acceptance	Payment	Notes
221118	1500		n/a Assignment	Yes/No	n/a	Images from UoP image bank

An example of a spreadsheet entry to track multiple submissions.

If you are submitting multiple articles to multiple journals, it's worth keeping track of what you've sent where and what the results are.
It may even be worth doing this for assignments – particularly if you have a lot due around the same time. You can replace 'payment' with mark assigned.

Good luck!