BACK 2 BASICS

BRIDGING THE GAP BETWEEN HIGHER EDUCATION
AND LABOR MARKET BY FOSTERING DIGITAL SKILLS

Bridging the gap between Higher Education and the labour market

Co-funded by
the European Union

BACK 2 BASICS

BRIDGING THE GAP BETWEEN HIGHER EDUCATION
AND LABOR MARKET BY FOSTERING DIGITAL SKILLS

Module 1

Information Literacy

M1

HELLENIC REPUBLIC
UNIVERSITY OF MACEDONIA

Smi)e Lab

Co-funded by the European Union

Information Literacy

Part 1 – Information Literacy Overview

Co-funded by
the European Union

LEARNING OBJECTIVES

Discover Key terms & concepts:
"Information Literacy", "Data Literacy",
"Media Literacy","Digital Literacy"

WELCOME

WARM UP ACTIVITY

THEORY

PRACTICE

QUESTIONS

POST-ACTIVITY

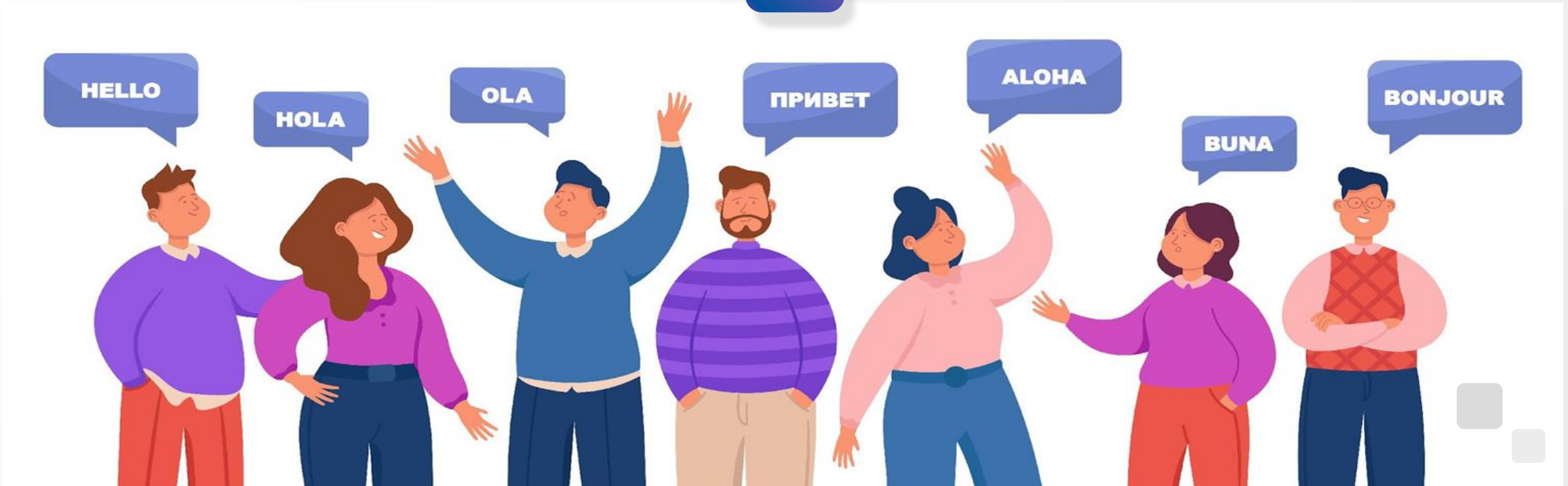**Module 1.** Information & Data Literacy

Welcome!

Image by pch.vector on Freepik

BACK 2 BASICS

WARM UP ACTIVITY!!

Open discussion: How would you define Digital Literacy? Have you ever heard other terms like "Information Literacy" or "Media Literacy" ? Reflect (2/3 min).

Image by pch.vector on Freepik

BACK 2 BASICS

WELCOME

WARM UP
ACTIVITY

THEORY

PRACTICE

QUESTIONS

POST-ACTIVITY

Module 1. Information & Data Literacy

THEORY!!

Image by pixabay

A plethora of interrelated concepts and definitions… (1/2)

- 'Digital Skills',
- 'Digital Competence' ,
- 'Information Literacy',
- 'Media Literacy',
- 'Digital Literacy',
- 'ICT Literacy',
- 'Digital Skills'…

Image source: https://www.pexels.com/photo/photo-of-woman-writing-on-tablet-computer-while-using-laptop-4348401/

There is still confusion what exactly these concepts describe.

Resource: Perifanou, M., & Economides, A. (2019). The digital competence actions framework.

BACK 2 BASICS

A plethora of interrelated concepts and definitions… (2/2)

Perifanou and Economides (2019) propose digital competence to be defined as the person's knowledge, skills and attitude to 'efficiently' :

- access digital resources,
- use digital resources,
- create digital resources,
- share digital resources,
- communicate,
- and collaborate with others

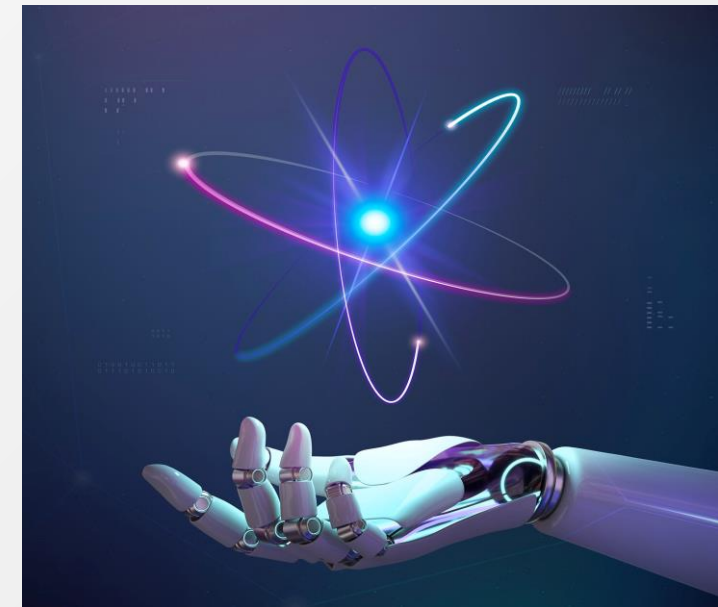by using digital technologies in order to achieve specific goals.

image source: https://pixabay.com/illustrations/arm-artificial-intelligence-robot-7014655/

Resource: Perifanou, M., & Economides, A. (2019). The digital competence actions framework.

BACK 2 BASICS

What is 'efficiently' considered?

An umbrella term includes the following:

- effectively,
- appropriately,
- responsibly (e.g. legally, ethically, respectfully),
- securely,
- critically,
- reflectively,
- creatively.

image source: https://www.apifirst.in/2020/09/17/jidoka-lean-tool-for-improvement-of-process-effectiveness-and-efficiency/

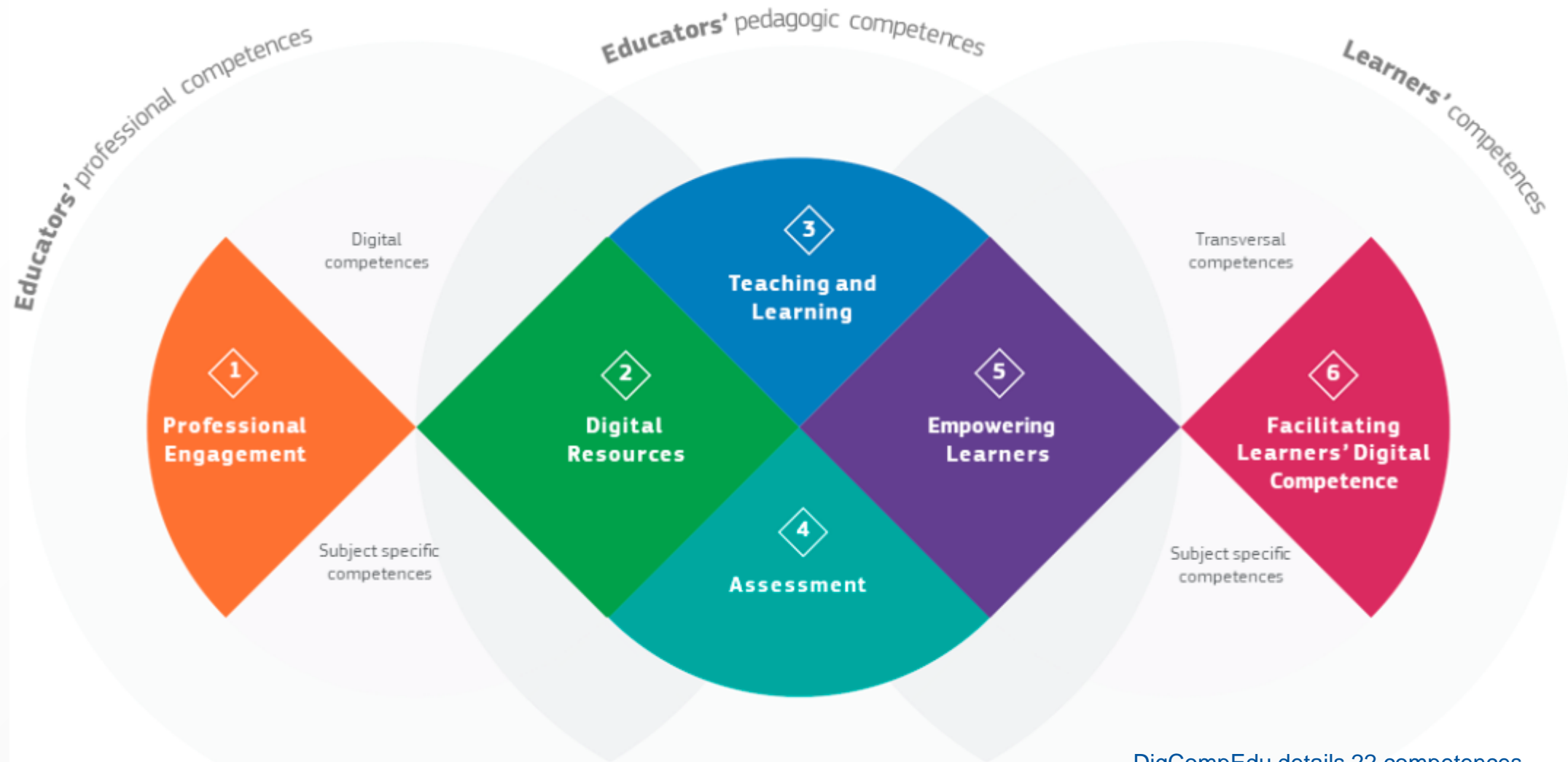Resource: Perifanou, M., & Economides, A. (2019). The digital competence actions framework.

https://publications.jrc.ec.europa.eu/repository/bitstream/JRC110624/dc_guide_may18.pdf

Educators' professional competences

Educators' pedagogic competences

Learners' competences

Digital competences

3	Teaching and Learning
1	Professional Engagement
2	Digital Resources
5	Empowering Learners
6	Facilitating Learners' Digital Competence
4	Assessment

Transversal competences

Subject specific competences

Subject specific competences
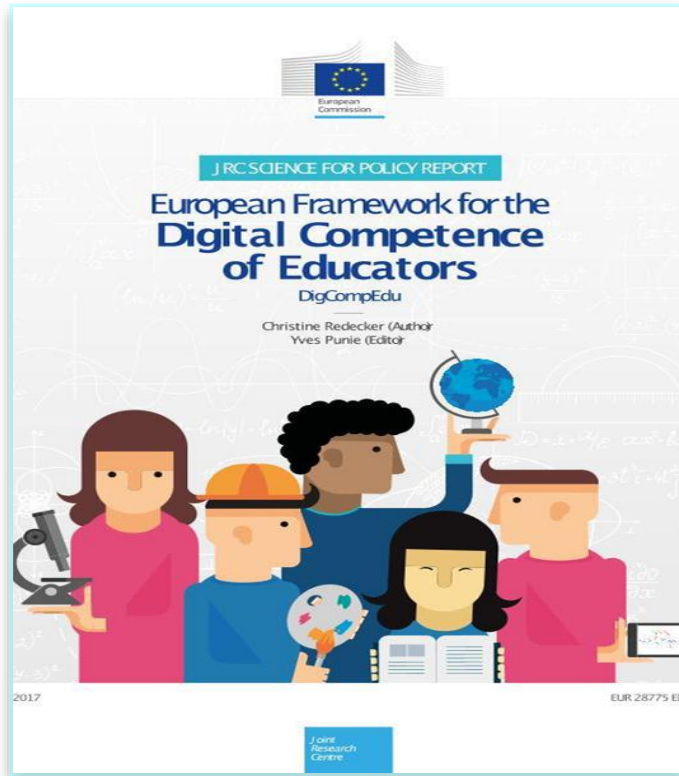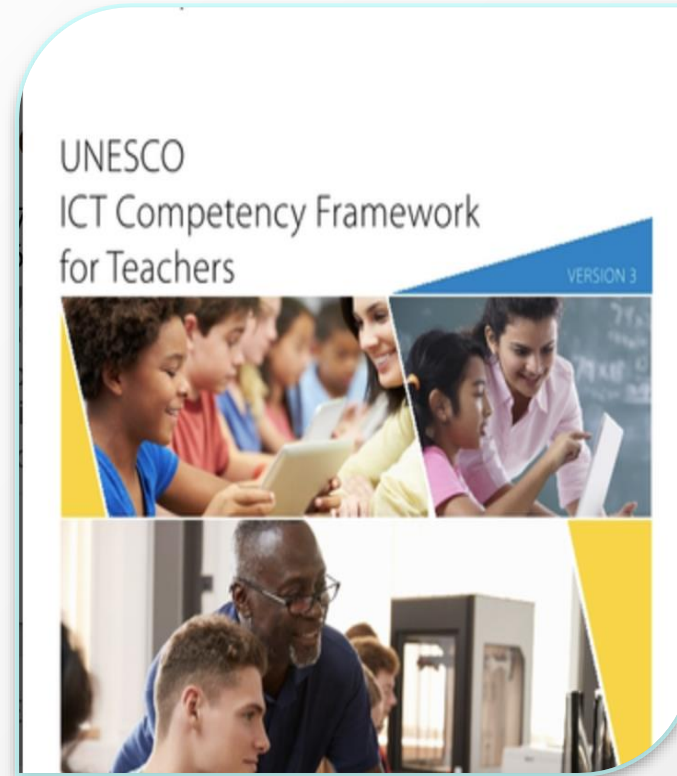
https://joint-research-centre.ec.europa.eu/digcompedu_en

DigCompEdu details 22 competences organised in six Areas

DIGITAL FRAMEWORKS FOR TEACHERS (1)
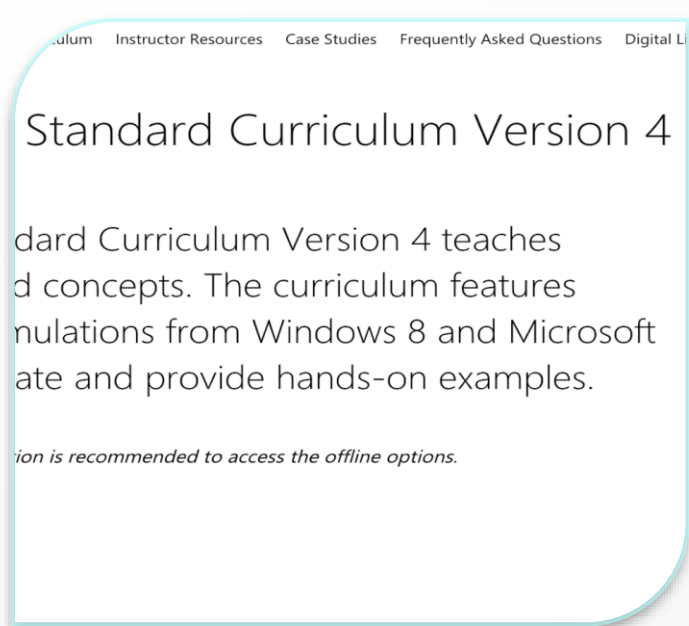

JRC, 2017
DIGICOMP FOR EDU

UNESCO, 2018
ICT COMPETENCY FRAMEWORK
FOR TEACHERS

INTEF, 2017
COMMON DIGITAL
COMPETENCE FRAMEWORK
FOR TEACHERS

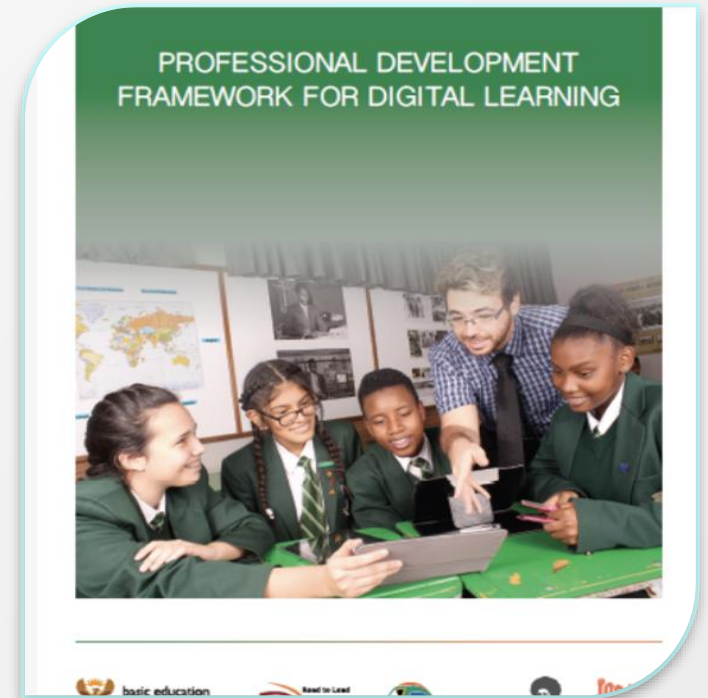# DIGITAL FRAMEWORKS FOR TEACHERS (2)

MICROSOFT, USA, 2016

DIGITAL LITERACY STANDARD CURRICULUM VERSION 4 TEACHER'S GENERIC ICT SKILLS AND CONCEPTS

THE NORWEGIAN CENTRE FOR ICT IN EDUCATION, NORWAY, 2017

PROFESSIONAL DIGITAL COMPETENCE FRAMEWORK FOR TEACHERS

SCHOOLNET, SOUTH AFRICA, 2017

PROFESSIONAL DEVELOPMENT FRAMEWORK FOR DIGITAL LEARNING

DIGITAL FRAMEWORKS FOR TEACHERS (3)

BEETHAM & SHARP, 2010

DIGITAL LITERACY FRAMEWORK

BELSHAW, 2014

8 ELEMENTS OF DIGITAL LITERACY

BRITISH COLUMBIA, K12, USA

DIGITAL LITERACY FRAMEWORK

DIGITAL FRAMEWORKS FOR TEACHERS (4)

EDUCATIONAL TESTING SERVICE (ETS), USA, 2001

INFORMATION COMMUNICATION TECHNOLOGY (ICT)

JISK, UK, 2018

DEVELOPING DIGITAL LITERACIES

MIT, USA, 2016

DIGITAL LITERACY & COMPUTER SCIENCE CURRICULUM FRAMEWORK

Young adults' information literacy skills

Young adults:

- consider themselves to have good information literacy skills, when in fact many do not.
- rely heavily on information obtained from the web and social networks,
- may not be able to judge the authenticity, validity, and reliability of digital information,
- may share misinformation among themselves. (This can be particularly problematic in some contexts, e.g. of health/well-being information).

→ Professionals within the fields of librarianship (primarily) and information science are the experts that educate people to develop critical thinking about the credibility of online information.
→ Professionals from journalism, information systems and education also contribute to the war against fake news and disinformation

BACK 2 BASICS

Image source: https://www.pexels.com/photo/working-in-front-of-the-computer-3184355/

Takeaway - Overview of the combined concept Media and Information Literacy

★ *A media/information literate person must not only be a consumer of information and media content, but also a **responsible information seeker,** who is able to take advantage of a diverse **range of information and communication tools and media**.(UNESCO, 2013)*
Resource: https://tise2015.kku.ac.th/drupal/?q=node/18

Image source: Dreamstime

Image source: https://pixabay.com/illustrations/hands-smartphone-social-media-1167618/

BACK 2 BASICS

WELCOME

WARM UP ACTIVITY

THEORY

PRACTICE

QUESTIONS

POST-ACTIVITY

Module 1. Information & Data Literacy

PRACTICE!!

Image by pixabay https://pixabay.com/illustrations/background-7371258/

Image by pixabay

2nd Activity: QUIZ Choose the right answer!
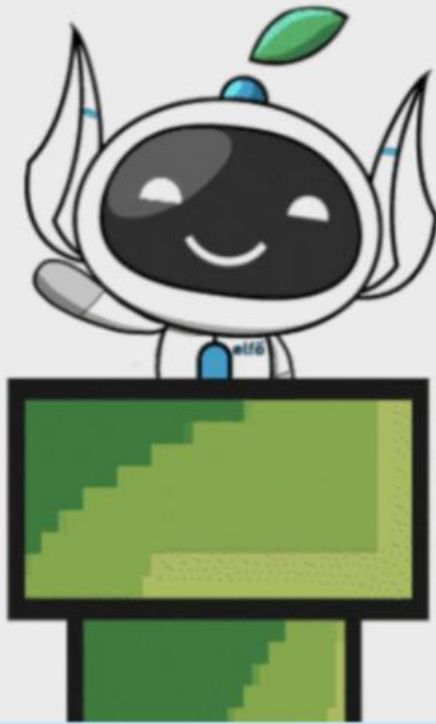
Image by pch.vector on Freepik

2nd ACTIVITY!!

QUIZ! QUESTION 1

1. As members of the digital citizenship, obtaining digital skills helps HE students to:

a. participate actively, continuously, and responsibly mostly in online communities

b. participate actively, continuously, and responsibly in local communities

c. participate actively, continuously, and responsibly in local, national, global, online, and offline communities.

d. participate actively, continuously, and responsibly only in offline line communities

Image by pch.vector on Freepik

BACK 2 BASICS

CORRECT ANSWER

1. As members of the digital citizenship, obtaining digital skills helps HE students to:

a. participate actively, continuously, and responsibly mostly in online communities

b. participate actively, continuously, and responsibly in local communities

c. participate actively, continuously, and responsibly in local, national, global, online, and offline communities.

d. participate actively, continuously, and responsibly only in offline line communities

Image by pch.vector on Freepik

BACK 2 BASICS

QUIZ! QUESTION 2

2. "Digital competence is considered to be the person's knowledge, skills and attitudes to 'efficiently' access, use, create & share digital resources, as well as communicate and collaborate with others using digital technologies in order to achieve specific goals". What is 'efficiently access' considered? You can choose more than 1 answer.

a. Freely

b. Easily

c. Safely

d. Ethically

Image by pch.vector on Freepik

BACK 2 BASICS

CORRECT ANSWER

2. "Digital competence is considered to be the person's knowledge, skills and attitudes to 'efficiently' access, use, create & share digital resources, as well as communicate and collaborate with others using digital technologies in order to achieve specific goals". What is 'efficiently access' considered? You can choose more than 1 answer.

a. Freely

b. Easily

c. Safely

d. Ethically

Image by pch.vector on Freepik

BACK 2
BASICS

Information Literacy

Part 2 – Searching Techniques

LEARNING OBJECTIVES

->To apply effectively search techniques, using either command search or menus, in various search engines and databases and for various purposes.

WARM UP ACTIVITY!!

Share with us your experience on helpful search practices!

OPEN DISCUSSION

Image by pch.vector on Freepik

BACK 2 BASICS

THEORY!!
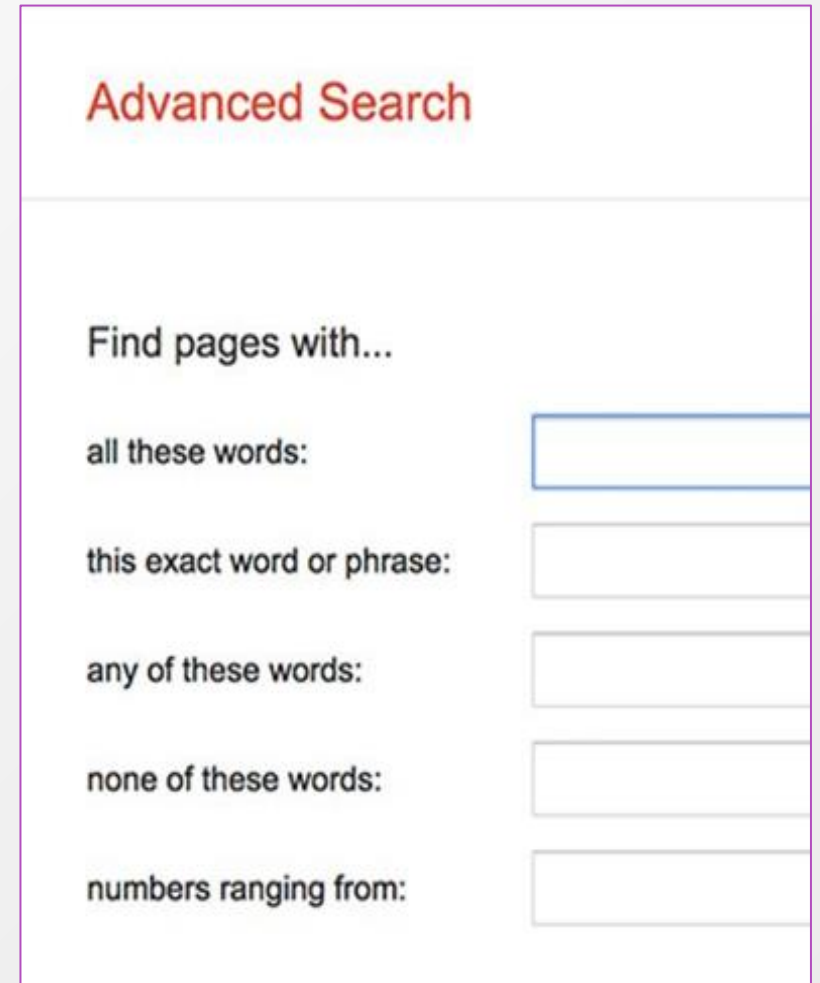
Image by pixabay

What do we mean by advanced searching?

Although popular Google's search engine is very "intelligent", so that by typing keywords it returns the relevant search results for us, it additionally provides advanced search techniques **for more complex searches, in a drop-down list**

- excluding keywords
- searching for informational material in a specific time period

Check here: https://www.google.com/advanced_search

Advanced Search

Find pages with...

all these words:

this exact word or phrase:

any of these words:

none of these words:

numbers ranging from:

Image source:
https://newsinitiative.withgoogle.com/resources/trainings/advanced-search-researching-with-precision/

29

When do we use advanced searching?

Many databases and search engines offer an advanced search option

- Each database or search engine may use Boolean operators in slightly different ways.
- Therefore, it is important first to check how Boolean operators work in the specific database or search engine you're using.

Source: Boolean Operators | Quick Guide, Examples & Tips

https://www.scribbr.com/working-with-sources/boolean-operators/

Advanced search Examples (cont.)

- Use of boolean Operators

Source: Boolean Operators | Quick Guide, Examples & Tips

https://www.scribbr.com/working-with-sources/boolean-operators/

Boolean operator	Function	Example
AND	Provides results that contain **both or all** keywords	paradigm AND syntagm
OR	Provides results that contain **either** keyword	meteor OR meteorite
NOT or AND NOT	Provides results that contain **the first** keyword but **not the second**	football NOT soccer
Quotation marks ""	Provides results with **the exact phrase**	"Newtonian mechanics"
Parentheses ()	Allows you to **group together** keywords and control the order in which the terms will be searched	(rural OR urban) AND sociology
Asterisk *	Provides results that contain a **variation** of the keyword	Develop* This will return results containing words such as "development," "developer," and "developing."

Advanced search examples (cont.)

- Terms exclusion

Advanced search examples (cont.)

- **Use of phrases**

'Department of Economic studies'

- **Truncation** (e.g. if you are looking for information on <u>gardening</u> you can broaden your term by writing:)

garden*

→ Results will include documents containing the following words:

gardens, garden, gardener, gardening, and so on.

Using parentheses in command search

- You can create more complex queries in command search by using parentheses.

(gasoline NOT diesel) AND hybrid electric AND vehicle

- Priority rules are similar with those used in mathematical statements.

Mini Quiz

Quiz (answer individually): Search Better - Search Better Quiz

https://edu.gcfglobal.org/en/search-better-2018/search-better-quiz/1/

Further reading

- Link: How to Refine Your Google Search and Get Better Results

https://medium.com/geekculture/how-to-refine-your-google-search-and-get-better-results-c774cde9901c

- Link: Search Better - Get More Out of Google Search

https://edu.gcfglobal.org/en/search-better-2018/get-more-out-of-google-search/1/

- Video: How Google Search Works (in 5 minutes)

https://www.youtube.com/watch?v=0eKVizvYSUQ

Further reading - Image search

Prefer the largest image size available (image.google.com, Tools).
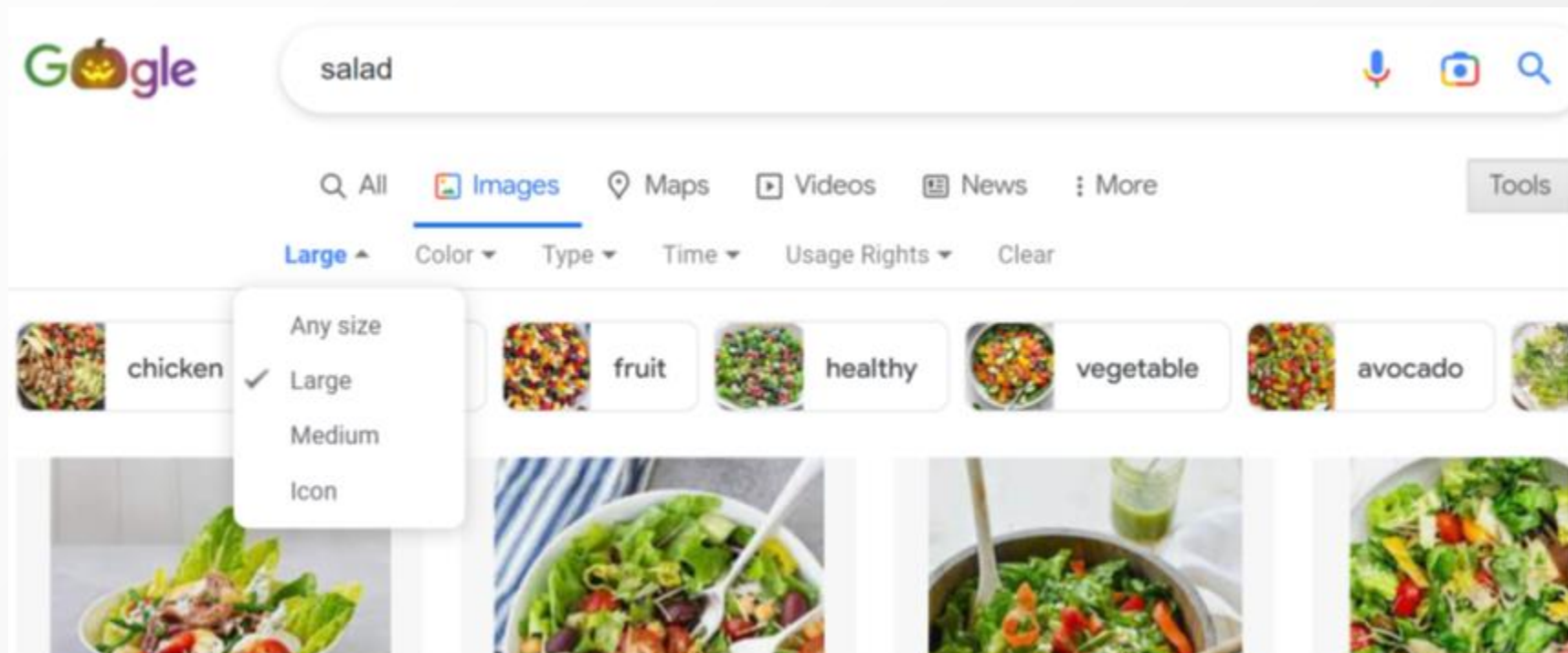
Further reading - Search for specific image file type (1/2)

Let's search for mexican salad filetype:jpg,

- One way is to click on Tools
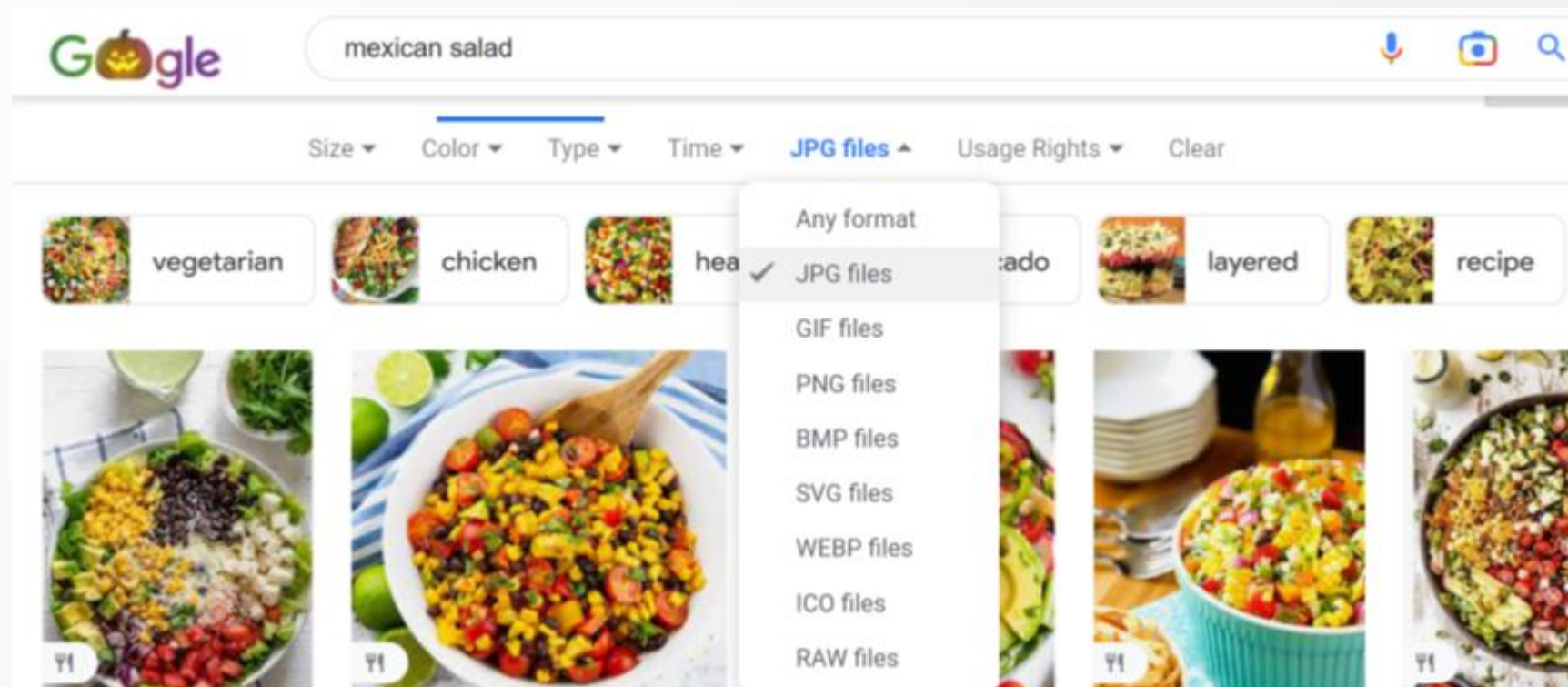
Further reading - Search for specific image file type (2/2)

- Another way is to write in command search:

  *mexican salad filetype:**jpg***

- Caution: use no spaces!!!

Advanced Google Image Search

https://www.google.com/advanced_image_search

Image source: https://www.lifewire.com/**what-is-reverse-image-search**-5205187
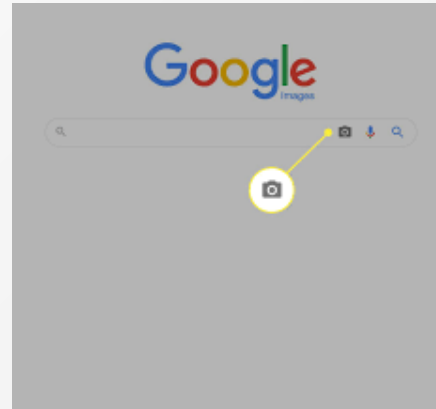
Takeaway - Subsection: Searching techniques for academic, workplace, or everyday life contexts.

- Simple Google command search is not the only searching technique.
- There are effective search techniques using either command search or menus in various search engines, databases and contexts.

Effective Internet Searching

Image source: https://slideplayer.com/slide/5850153/

WELCOME

WARM UP ACTIVITY

THEORY

PRACTICE

QUESTIONS

POST-ACTIVITY

Module 1. Information & Data Literacy

PRACTICE!!

Image by pixabay https://pixabay.com/illustrations/background-7371258/

Image by pixabay

BACK 2 BASICS

ACTIVITY 2

2nd Activity: Try a complex search

Google

LOV

Google Search   I'm Feeling Lucky

Image by pch.vector on Freepik

BACK 2 BASICS

Information Literacy

Part 3 – Popular sources of information and knowledge for academic, workplace, and everyday life contexts.

LEARNING OBJECTIVES

->To identify and access popular on-line sources of information and knowledge for academic, workplace, and everyday life contexts.

->To compare different online source types.

WARM UP ACTIVITY!!

Which popular sources of information and knowledge do you use?

OPEN DISCUSSION

Image by pch.vector on Freepik

BACK 2 BASICS

WELCOME

WARM UP
ACTIVITY

THEORY

PRACTICE

QUESTIONS

POST-ACTIVITY

Module 1. Information & Data Literacy

THEORY!!

Image by pixabay

Popular sources of information or knowledge

Following list items are presented in proposed order:

everyday life -> workplace -> academic use

(no discrete limits between items)

- Online Discussion Forums
- Websites (including blogs)
- Generative AI tools (e.g., ChatGPT)
- Crowdsourced encyclopedias (e.g., Wikipedia)
- MOOCs
- Libraries (academic, public)
- Repositories
- Academic and scholarly databases

Image source: https://sure.nlb.gov.sg/tng/surevivors-activity3/

Online Discussion Forums

Electronic platforms for:

- discussion,
- participation
- knowledge sharing,
- information dissemination.

Examples:

- online community forums,
- social media platforms

Image source: https://elearningindustry.com/how-create-engaging-online-discussion-forums

Online Discussion Forums (cont.)
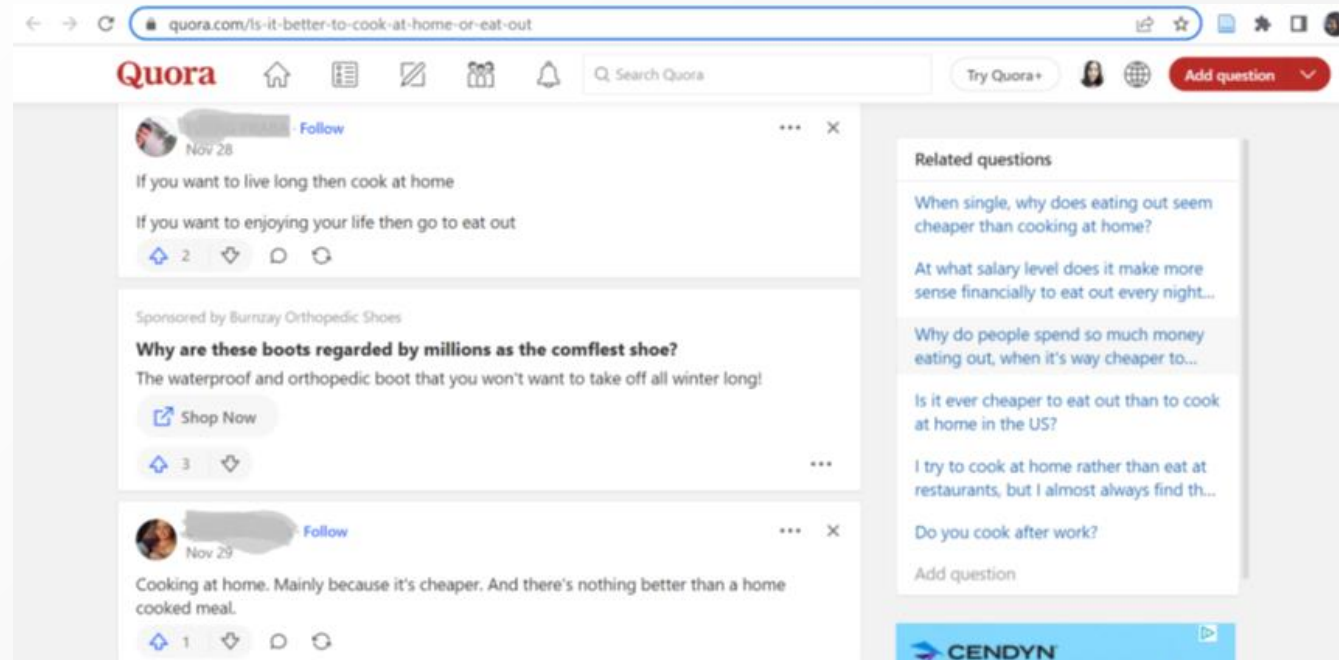
Screenshot from *thread* (discussion) at Quora forum (sign-up needed).

Discussion topic: "Is it better to cook at home or eat out?" accessed 12 Dec 2022

Source:

> *Is it better to cook or eat out in the UK?* Quora. (n.d.). Retrieved December 12, 2022, from https://www.quora.com/Is-it-better-to-cook-or-eat-out-in-the-UK

Online Discussion Forums (cont.)

- huge quantity of online discussions available

- access to different views and approaches

- support deeper understanding of a topic

- some posts may be of low quality or abusive

(Onyema et al, 2019)

Image source:

https://universityservices.wiley.com/9-student-engagement-strategies-for-discussion-forums/

Use of generative AI tools (e.g., ChatGPT) in academic settings

- While AI can generate useful ideas and can help with certain tasks, it should be used as a tool to supplement, not replace, your academic work.

- AI-generated text should not replace primary sources or sound academic research.

- However, it can be a good starting point.

- You should always verify the information you obtain from AI with credible and primary sources.

Video: Using AI Ethically in academic settings (critical approach, ethical use)
https://monash.au.panopto.com/Panopto/Pages/Viewer.aspx?id=89ed71d3-972c-4939-b6ce-afd50109d15e&start=155.505504

Further reading:

Using artificial intelligence. Learn HQ. (2023, May 2). https://www.monash.edu/learnhq/build-digital-capabilities/create-online/using-artificial-intelligence accessed 1st July 2023

Source:OpenAI. "ChatGPT." Version 4.0, 2023, www.openai.com.
Image source: https://www.vecteezy.com/free-vector/ai-tools

What about Wikipedia?

- Although Wikipedia is not considered a reliable source,
- as its content can be edited by anyone,
- however, it can be a good starting point,
- for general information and finding other sources.
- References and further reading section at the bottom of the Wikipedia article.
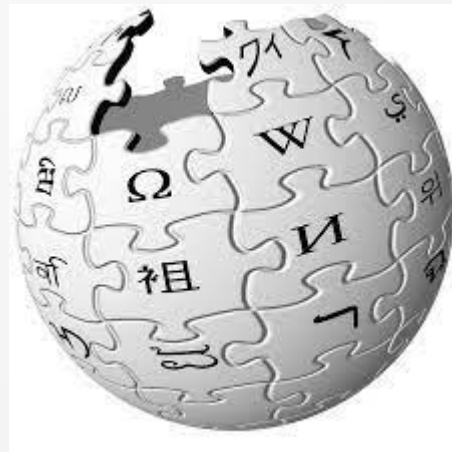
Massive Open Online Courses (MOOCs)

- A new model of distance education

- May offer video lessons, announcements, forums, and assessments (quizzes, exercises, etc.) (Hsu, 2021; Gardner & Brooks, 2018).

- Either self-paced (flexible deadlines), or fixed-schedule (Ihantola et al., 2020).

- May offer certificate of completion (with some fee) (Chuang & Ho, 2016).

- Popular English-language MOOC educational platforms include:

  - Coursera,
  - edX,
  - FutureLearn,
  - Udacity

- A popular Greek MOOC platform is https://mathesis.cup.gr/

Quick access to popular MOOCs

1. **Google search** using either of the following terms:
    *   MOOCs
    *   (free) online courses

2. Visit https://www.classcentral.com/
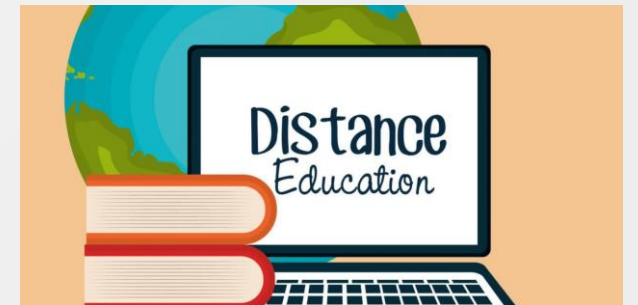
Further reading: Online Courses

Links:

Boosting your Employability through MOOCs

https://libraryblog.wordpress.hull.ac.uk/2022/03/22/boosting-your-employability-through-moocs/ accessed 17 Jan 2023

Useful guidelines about accessing and evaluating online courses

https://libguides.hull.ac.uk/digitalstudent/educationaltools accessed 17 Jan 2023

Academic Libraries

You can find helpful print sources in your institution's library. These include:

- Journal articles

- Books

- Encyclopedias

- Newspapers and magazines

Visit https://nmsu.libguides.com/sources/types

Academic and scholarly databases

- Specialist search engines for academic and research purposes.

- Google Scholar, Scopus and ScienceDirect, for example, allow you to search for academic articles.

Google Scholar

Ryan, E. (2022, November 3). *How to find sources: Scholarly articles, books, etc..* Scribbr. Retrieved December 28, 2022, from https://www.scribbr.com/working-with-sources/finding-sources/

Google Scholar

- Popular search engine for academic and research purposes.

- You can find books and articles that might be hard to find in a general-purpose search engine.

- It is recommended to be more precise while formulating your search query in Google Scholar's command search, comparatively to common Google command search, by using boolean operators, wildcards and so on.

- Its "Cited by" function lets you see the number of times a source has been cited.

- Easy citation creation by clicking on ("Cite)

Digital repositories

Digital repositories are information systems that:

- collect,
- store,
- manage,
- preserve, and
- provide access to digital content.

Some repositories provide open access at least in part.

(Heery & Anderson 2005)

Image source: https://www.datanamic.com/repository/
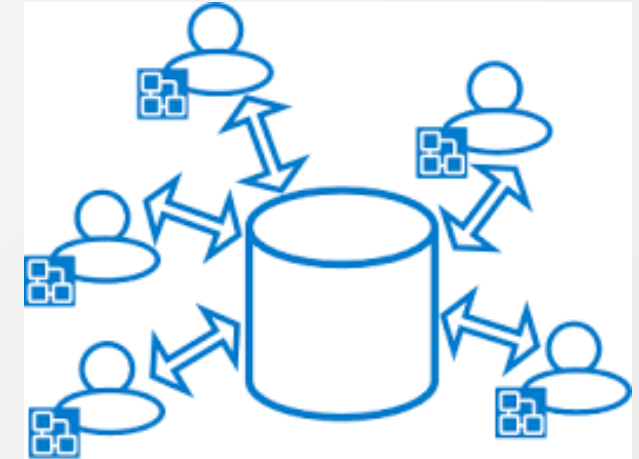
Institutional repositories (IRs)

Content includes:
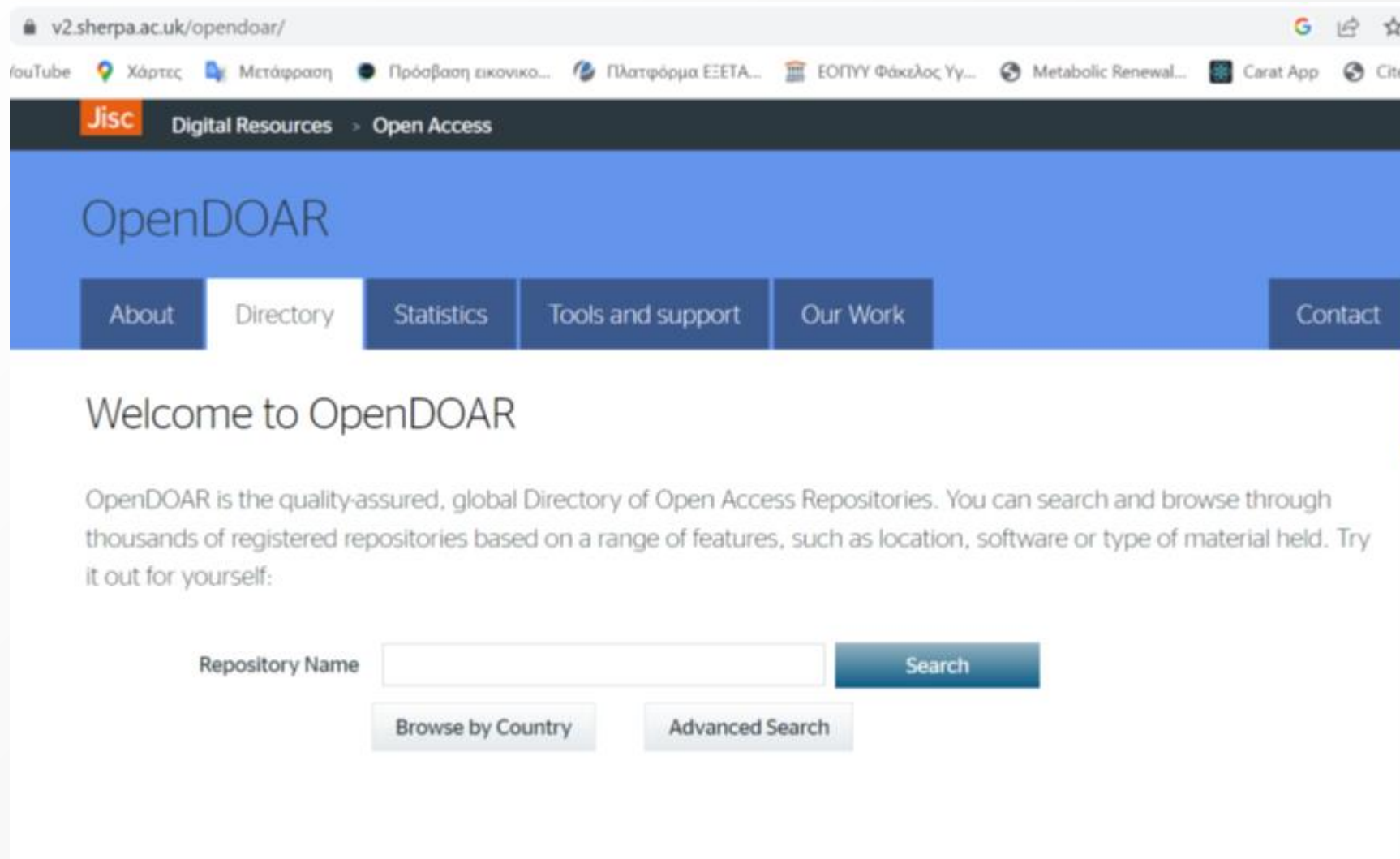
- journal articles,
- conference proceedings,
- symposiums,
- magazines,
- review articles,
- research data,
- dissertations,
- theses,
- teaching material (e.g. course notes), etc.

https://ruomo.lib.uom.gr/?locale=en

Further reading - OpenDOAR: Digital Repository of Directory of Open Access Repositories

Open access statistics repositories

LibGuides: Open Access Resources: Statistics: Data Repositories. Library guides. (n.d.). Retrieved January 4, 2023, from https://libguides.asu.edu/openaccessresources/statistics

An example of a search strategy

Search strategy for scientific purposes using boolean searching (Smits et al., 2022)

•   Researchers searched for academic papers in the following scientific databases: ACM Digital Library, PubMed, Web of Science, IEEEXplore, PhilPapers, and Google Scholar.

•   More specifically, they searched for the existence of the following terms in the title or abstract of the papers by using boolean operators:

("well-being OR wellbeing") AND ("patient") AND ("design" OR "moral*" OR "ethic*") AND ("technology" OR "digital" OR "ehealth" OR "mhealth" OR "telemedicine" OR "telehealth" OR "electronic health" OR "mobile health" OR "Mobile*" OR "smart*" OR "internet")*

Source: Smits, M., Kim, C. M., van Goor, H., & Ludden, G. D. (2022). From Digital Health to Digital Well-being: Systematic Scoping Review. Journal of medical Internet research, 24(4), e33787.

Takeaway - Popular sources of information and knowledge .

There is a variety of online sources.

Following list items are in proposed order:

everyday life -> workplace -> academic use

(no discrete limits between items)

1. Online Discussion Forums
2. Websites (including blogs)
3. Generative AI tools (e.g., ChatGPT)
4. Crowdsourced encyclopedias like Wikipedia
5. MOOCs
6. Libraries
7. Repositories
8. Academic and scholarly databases

PRACTICE!!

Image by pixabay https://pixabay.com/illustrations/background-7371258/

Image by pixabay

BACK 2 BASICS

ACTIVITY 2

Activity: Visit a forum

1. Visit ttps://it-maniacs.com/best-and-most-popular-forums-message-boards-and-online-communities-top-30/

2. Select Quora (sign-up needed).

3. Select a discussion of your choice. Examples:

1. First year in college
2. Master in Information Systems

Image by pch.vector on Freepik

Share your comments!

BACK 2 BASICS

ACTIVITY 3

Activity: Compare online sources

Share with us your perspectives on the advantages and drawbacks of various online source types you have used.

Image by pch.vector on Freepik

BACK 2 BASICS

Information Literacy

Part 4 - Guidelines for evaluating online content

Co-funded by
the European Union

LEARNING OBJECTIVES

-> Recognize the importance of thinking critically about the online information.

-> Evaluate on-line content using the CRAAP test.

-> Discern credible from non-credible online content.

-> Develop critical attitude against online content credibility.

WARM UP ACTIVITY!!

Can you think of some criteria
for evaluating online content?

OPEN DISCUSSION

Image by pch.vector on Freepik

BACK 2 BASICS

THEORY!!

Image by pixabay

Online content evaluation issues

- Absence of information quality standards,
- Ease in altering data/information,
- Some online content is authoritative…
- …some other is merely opinionated.
- Be aware of *confirmation bias*
  - we tend to seek out and prefer information that supports our preexisting beliefs, ignoring any information that contradicts those beliefs.
- There is need to develop critical approach towards online content and even our own thinking.

Source:

Viviani, M., & Pasi, G. (2017). Credibility in social media: opinions, news, and health information—a survey. *Wiley interdisciplinary reviews: Data mining and knowledge discovery*, 7(5), e1209.

Links:

https://www.allsides.com/media-bias

https://www.scribbr.com/faq-category/research-bias/

The CRAAP test

The CRAAP test helps you evaluate the credibility of a source:

> The 5 components of the CRAAP test
>
> - **Currency:** Is the source up-to-date?
> - **Relevance:** Is the source relevant to your research?
> - **Authority:** Where is the source published? Who is the author? Are they considered reputable and trustworthy in their field?
> - **Accuracy:** Is the source supported by evidence? Are the claims cited correctly?
> - **Purpose:** What was the motive behind publishing this source?

Screenshot taken by https://www.scribbr.com/working-with-sources/craap-test/

Tips to discern credible from non-credible online content (1/2)

- Is the author expert in the field?

- Is there an "About Us" section?

- Some way to contact the author or organization provided?

- Are the original sources mentioned?

- Are there any links or citations to other/original sources?

- Credibility of cited sources and links?

- Are the sources mentioned in an accurate context?

- Has the information been reviewed by other experts?

- Too emotive or subjective writing?

- Neutral or biased tone of the article?

- Neutral or biased tone of the sources? The sources the author cited should be unbiased.
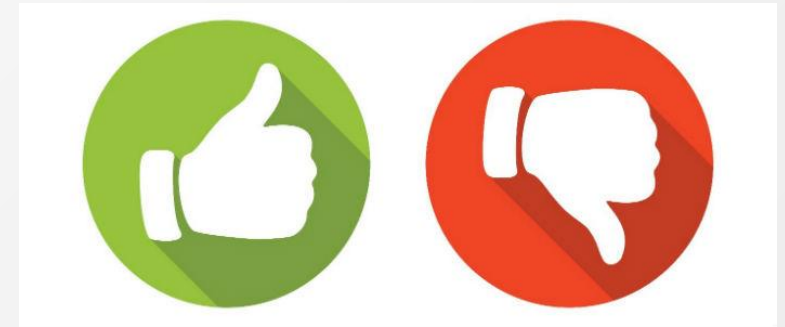
Tips to discern credible from non-credible online content (2/2)

- Serious grammatical or orthographic errors?

- Use of vague* terms?

- Use of buzzwords?

- Does the layout look professional? For web sources, the URL and layout should signify that it is trustworthy.

- Author's motivations?

- Does author try to convince you to purchase something? Does the website have sponsored content? This could be a sign of bias.

- Comments-reactions-reviews of readers/audience?

*If something written or spoken is vague, it does not explain or express things clearly. Some examples are: big, small, good, great, light, limited… https://www.blinn.edu/writing-centers/pdfs/Vague-Words-Tables.pdf

Source: What Are Credible Sources & How to Spot Them | Examples

https://www.scribbr.com/working-with-sources/credible-sources/

Caution tips when checking online content (1/2)

- Reliability of online (news) sources can vary enormously.

- Beware of grandiose (exaggerated) claims , and critically analyze anything not cited or not backed up by evidence.

- Academic journals are often considered among the most credible sources. Check that they are peer-reviewed* and published in a reputable journal to ensure reliability and high quality.

*A panel of reviewers in the same subject area decide whether a submission should be accepted for publication.

Draft Article

APPROVED
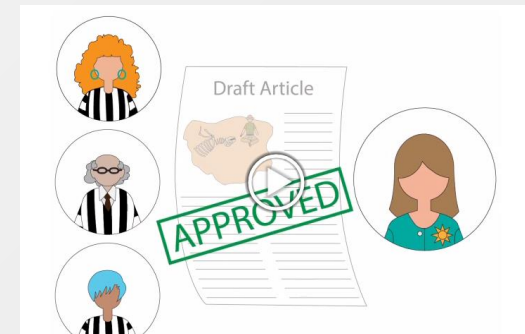
Caution tips when checking online content (2/2)

- Search the Internet to find out what other sources say about the site.

Trusted (in general) website domain extensions:

- .edu (educational),
- .gov (government-related),
- .org (non-profit organizations)

References and web links::

Breakstone, J., McGrew, S., Smith, M., Ortega, T., & Wineburg, S. (2018). Why we need a new approach to teaching digital literacy. *Phi Delta Kappan*, *99*(6), 27-32.

What Are Credible Sources & How to Spot Them | Examples

https://www.scribbr.com/working-with-sources/credible-sources/

Takeaway - Evaluating online content

- Online information evaluation skills develop gradually,
- by exercising in approaching critically online content
- The CRAAP test helps you evaluate the credibility of a source.
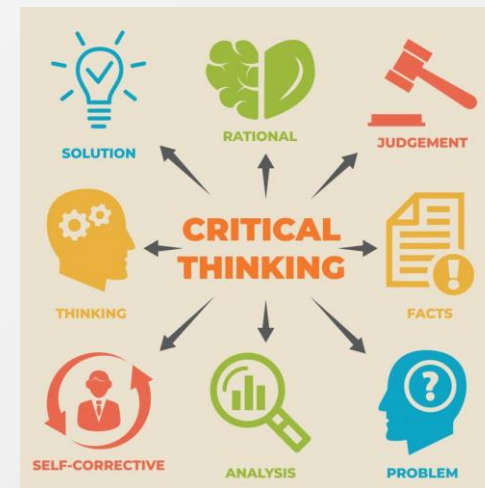
Image source: https://www.pdcourses.net/pdc-news.php?b_id=38&u=prepare-your-students-to-think-critically

PRACTICE!!

Image by pixabay https://pixabay.com/illustrations/background-7371258/

Image by pixabay

ACTIVITY 2

Work in pairs! Examine the credibility in each of the following situations.

1. An educational institution's well-written guidelines by its librarian staff about information literacy were last updated in 2009.

2. A blogger writes his experience with climbing, and includes photos and videos in his posts. He also promotes climbing equipment to gain some revenue. He allows commenting to engage readers and build popularity and content freshness. Shall we reject his articles and his climbing experience and related tips/guidelines?

3. Research paper about Information Systems written in 1994. Accessed through Google Scholar.

Image by pch.vector on Freepik

BACK 2 BASICS

Information Literacy

Part 4 - Ethical issues related to the use of online information. How to avoid plagiarism.

Co-funded by
the European Union

LEARNING OBJECTIVES

->Be aware of what is considered as plagiarism.
->Avoid plagiarism.
->Cite sources of various types (e.g., text, generative AI, images, diagrams and tables) quickly and effectively.

WARM UP ACTIVITY!!

What is considered plagiarism? Is this a serious problem?

OPEN DISCUSSION

Image by pch.vector on Freepik

BACK 2 BASICS

THEORY!!

Image by pixabay

When should we give credit to the ideas of others, and how?

Video (2:53) When should I give credit to the ideas of others?

https://www.youtube.com/watch?v=XQ1hXDwr_7c

Me waiting for the percentage of plagiarism to be revealed on my assignment

UNIVERSITY STUDENT.org

Image source:

https://www.universitystudent.org/memes/plagiarism

What is considered as plagiarism?

- the use of material or ideas from a source without referencing it (properly)

  - (copy-paste) material from a textbook, a journal, the Web,
  - (copy-paste) course material (lecture notes),
  - computer programming source code,
  - other student's work (presentation, source code etc),

Plagiarism is:

- a form of cheating,

- an academic offense,

Link: 6 Consequences of Plagiarism

https://www.ithenticate.com/resources/6-consequences-of-plagiarism accessed 15 December 2022

Plagiarism identification

- Turnitin is a tool that identifies levels of *similarity* between your writing and other students assignments or published work.

- You can read more about using Turnitin in higher education at https://lo.unisa.edu.au/mod/book/tool/print/index.php?id=252146

How to avoid committing plagiarism (1/2)

- Store (e.g., write down) your sources while accessing and gathering content.
- Credit and cite your sources.
- You still must cite the sources of information or ideas while:
  - paraphrasing (that is, giving the meaning in different words) or
  - summarizing
- Insert exact text in quotation marks:
  - 'exact text from another source'

How to avoid committing plagiarism (2/2)

You can use:

- an online *citation generator*.

- a plagiarism checking tool (free versions available).

  - https://www.scribbr.com/plagiarism-checker/
  - https://www.grammarly.com/plagiarism-checker

VISIT Link Avoiding Plagiarism (nice video with the legal aspect of plagiarism in 3rd screen)

https://www.oercommons.org/courses/avoiding-plagiarism/view accessed 15 December 2022

An example of plagiarism checker tool usage

Activity: Create your citation by using an online tool!

Let's say that we want to create a citation for the following URL:
https://liquid-state.com/healthcare-needs-digital-health-apps/

1.   Visit https://www.citethisforme.com/   .
2.   Click on "Create citations" button.
3.   Choose your source: Website.
4.   Insert URL and click Search.
5.   Click Cite.
6.   Check the result and fill-in additional available details if needed.

Differences between citation, references, and bibliography (-> image in next slide)

- Citation: the disclosing within the main body of your project (such as article or assignment) that specific content (e.g. text, image, statistics etc) is taken from another source.
- References: a list containing all sources cited while writing the report. Includes only in-text citations.
- Bibliography: a list of the sources that you used for your document (e.g. for idea generation and consultation), whether cited or not.

Source: Difference Between Reference and Bibliography

https://keydifferences.com/difference-between-reference-and-bibliography.html

In-text citation vs reference list

In-text Citations
You use only a few basic details

The researcher describes a virtuous person as one "who acts and feels as he or she should, for the right reason considering the circumstances" (Alvaro, 2017, p.770).

Reference List
You use ALL of the details

Alvaro, C. (2017). Ethical veganism, virtue and greatness of the soul. *Journal of Agricultural and Environmental Ethics, 30*(6), 765-781. https://doi.org/10.1007/s10806-017-9698-z

Citation styles

There are many ways (styles) of citing sources for your project. The citation style sometimes depends on the academic discipline involved. For example:

- APA

- MLA

- Chicago/Turabian

You will need to consult with your professor to determine what is required in your specific course.

Source: How to do I choose a citation style?

https://pitt.libguides.com/citationhelp/overview

How to cite easily when using Google Scholar

1. Click on the "Cite link below a reference item.

2. Select your citation style and press Ctr+C.

3. Paste (Ctrl+V) the citation into your working document.
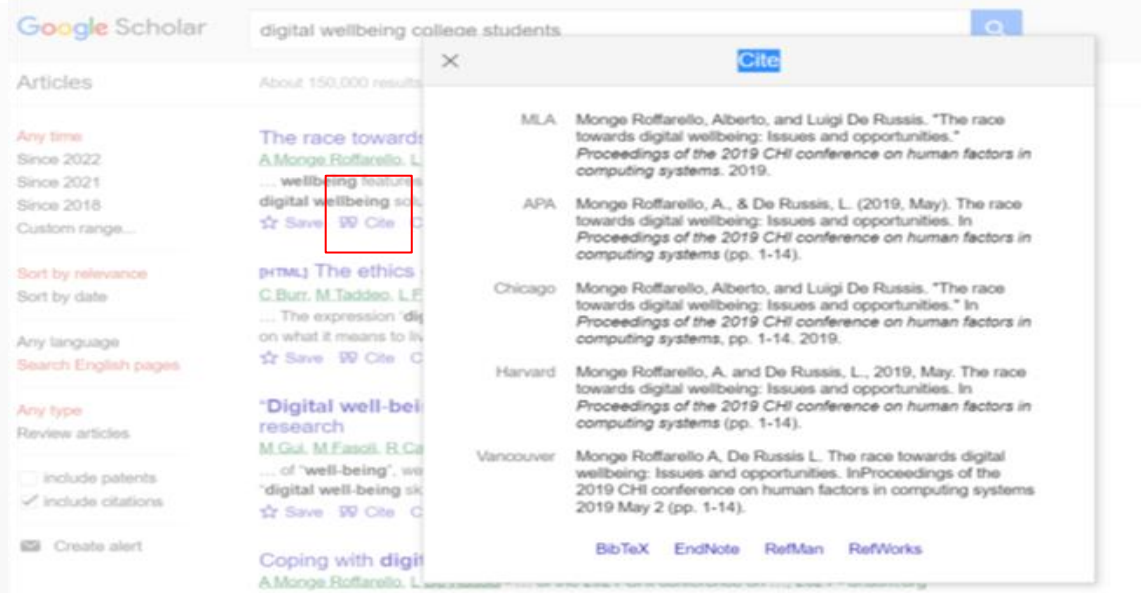
An example of image citation

Screenshot source:

https://openoregon.pressbooks.pub/wrd/chapter/crediting-your-sources/

Acknowledging the use of generative AI

You should acknowledge when you've used generative AI tools like ChatGPT.

Examples of citations are the following:

- **APA (7th Edition):**
  OpenAI. (2023). ChatGPT (Version 4.0) [Computer software]. https://www.openai.com
- **MLA (8th Edition):**
  OpenAI. "ChatGPT." Version 4.0, 2023, www.openai.com.
- **Chicago (17th Edition):**
  OpenAI. 2023. "ChatGPT." Version 4.0. https://www.openai.com.
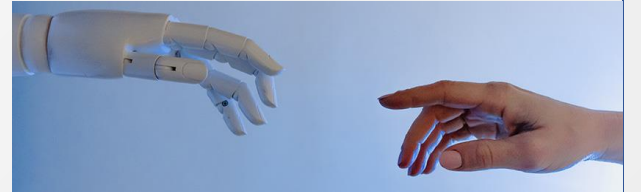
You should clarify in your text that the content was generated by an AI tool. For example, you might write, "As generated by the AI model ChatGPT, the possible implications of this event could include..."

Further reading:

Acknowledging the use of Generative Artificial Intelligence. Learn HQ. (2023a, April 18). https://www.monash.edu/learnhq/build-digital-capabilities/create-online/acknowledging-the-use-of-generative-artificial-intelligence#tabs__3254796-03 accessed 1st July 2023

Further reading: How to cite various content types

- **Citing Images, Diagrams and Tables**

https://www.student.unsw.edu.au/citing-images-and-tables-found-online

- **How to Cite a Picture or Image in APA**

https://www.easybib.com/guides/citation-guides/apa-format/how-to-cite-a-photo-digital-image-apa

Takeaway - Plagiarism

- Plagiarism is in general the immoral use of material taken by another source without referencing it properly.
- It can be identified by plagiarism detection SW (e.g., Turnitin).
- Don't forget to store your sources while accessing and gathering content.
- Cite your various source types properly to give credit to others' ideas.
- You may also use online tools that facilitate citation.
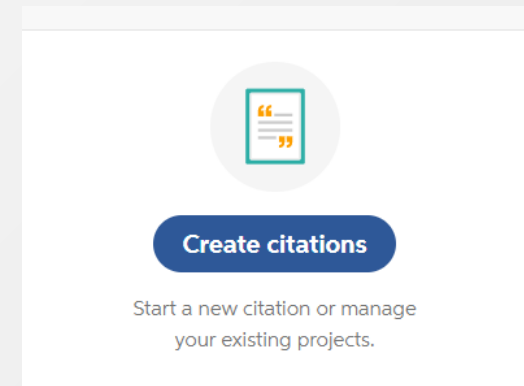
Create citations

Start a new citation or manage your existing projects.

Image source:
https://www.citethisforme.com/

Let's say that we want to create a citation for the following URL:

https://liquid-state.com/healthcare-needs-digital-health-apps

1.   Visit https://www.citethisforme.com/   .

2.   Click on "**Create citations**" button.

3.   Choose your source: **Website**.

4.   **Insert URL** and click **Search**.

5.   Click **Cite**.

6.   Check the result and fill-in additional available details if needed.

Share your findings with us!

ACTIVITY 2

Image by pch.vector on Freepik

BACK 2 BASICS

Information Literacy

Part 5 - Disinformation, fake news, and the role of social media

LEARNING OBJECTIVES

-> Describe disinformation and its impact on society.

-> Understand the role of social media in spreading mis/disinformation.

-> Develop critical attitude against received information.

-> Take actions to reduce or prevent the spreading of disinformation (e.g., by fact-checking information).

-> Develop responsible attitude regarding participation and sharing in social media and the online world, in general.

WARM UP ACTIVITY!!

- Which online news media do you use?
- Write down sources of news and information you access.
- What do you think of them in general, in terms of reliability?
- Share with us an experience of exposure to disinformation.

OPEN DISCUSSION

Image by pch.vector on Freepik

BACK 2 BASICS

WELCOME

WARM UP ACTIVITY

THEORY

PRACTICE

QUESTIONS

POST-ACTIVITY

Module 1. Information & Data Literacy

THEORY!!

Image by pixabay
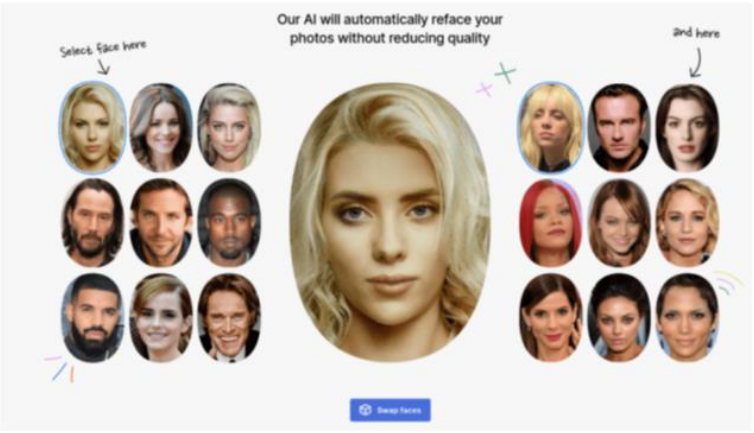
What is considered as disinformation

- Commonly referred to as **"fake news"**.
- Verifiably false or misleading information
    - disseminated for economic gain or to intentionally deceive the public.
- Fiction, false information, and opinions* are promoted as 'the truth'
    - facts vs opinions: 'it is zero degrees outside' vs 'it is too cold outside'.
- can spread significantly faster than real information.
- may cause harm to individuals, groups, and society.

Cheapfakes

- altered material (such as images or audio-visual material) easily,
- by humans,
- e.g., face swapping

Deepfakes

- Material (images, videos, audio, text),
- *artificially generated by AI* deep learning
- often impossible to distinguish from the real ones.
- An example of deceiving fake comment:

Was the following comment created by a bot or a human?

I am writing to you with regard to Idaho's proposed Medicaid waiver which has problems as it is currently written. Many Idahoans depend on Medicaid when they are sick and need help. Implementing the proposed waiver would mean taking away health care when people are most vulnerable. If someone has low income and becomes ill and cannot work that is not the time to take away their coverage.

Source: Max Weiss, 'Deepfake bot submissions to federal public comment websites cannot be distinguished from human submissions', *Technology Science*, 18 December 2019, online. Cited in Smith and Mansted (2020).

Text generation
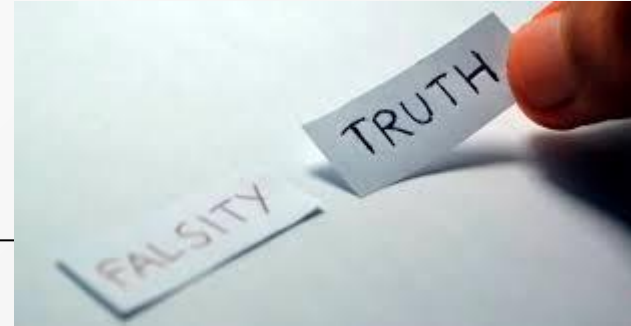
- artificial,
- human speech-like text,
- enough convincing to deceive humans,
- examples: comments on social media, web forums, news posts, reviews, opinion articles.

Weiss, M. (2019). Deepfake bot submissions to federal public comment websites cannot be distinguished from human submissions. Technology Science

DEMO AI-based automatic text generation at:

King A. Talk to Transformer. (Demonstration of OpenAI's model GPT-2) https://talktotransformer.com/

ACTIVITY

How well you can identify deepfake text?
Take the "Deepfake Text Study" (2 min)!!

VISIT
https://harvard.az1.qualtrics.com/jfe/form/S
V_09gBWNLbx6IOmq1

Image by pch.vector on Freepik

BACK 2 BASICS

Common characteristics of disinformation

- **Speaks to the emotions** of the targeted person.

- People share false news items with sentiments of surprise and disgust.

- This makes it harder for the person to think logically and critically.

- Contributes to polarization growth by promoting 'Us versus Them' views.

- Simplifies facts.

- Presents only one side of something.

- Makes use of famous people and celebrities that the target group admires.

https://www.shutterstock.com/el/search/brain-manipulation

A disinformation example

Vodafone have their say on 5G co...
dailypost.co.uk

Fact Check: Are 5G experiments responsible...
republicworld.com

Hundreds of birds were found dead in the Ne...
fullfact.org

Debunking of Birds "Dying Due to 5G" at:

https://www.thequint.com/news/webqoof/photo-shows-birds-dying-due-to-5g-testing-fact-check

The role of technology to polarization growth

Algorithmic technology also contributes to reinforcement of polarizing views

• by supporting exposal to "preferred" content (aligned with pro-existing beliefs)

• so, subjective content is echoed online by users.

Popularity of social media contributes,

by facilitating the spread of fake news stories.

Therefore, we talk about **the epidemic of fake news**

Image source: https://www.agilitypr.com/pr-news/public-relations/disinformation-in-society-new-institute-of-pr-research-examines-and-tracks-its-spread/

Impact of university students' engagement with fake news to their personal well-being

Some examples of university students' reported experiences about their engagement with fake news that affected their self-confidence and well-being

Deception and trouble

- "It harmed my computer"

- "fake news scammed me"

- "finally, it wasn't a job opportunity"

Disappointment and inconvenience

- "Professor got angry upon hearing about that post. It was not reliable at all."

- "Everybody in class laughed. It was just fake news."

Paglinawan, W. M. C. (2020). University students engagement with and disengagement from fake news. Media Literacy and Academic Research, 3(2), 77-87.

Information Literacy against fake news

Information literacy has been identified as one of the most effective methods in combating fake news.

- Be skeptical about the creator, the content and the purpose of information posted on social media

  - Evaluate online content before sharing

- Are all sides presented fairly?

- Reduce time spent on social media to reduce information overload

- Read news from a few rigorous and trustworthy sources

- Fact-check (explained later)

- Remove content, if needed, to avoid spread of false information.

- Report other users suspected of spreading false information, either knowingly or unknowingly.

Is this information accurate?

Image source: EU guidelines, 2022

How can technology support against polarization?

- <u>AllSides</u> is a website which provides tools and services against bias and polarization, for example it exposes people to information and ideas from all sides about a specific topic to prevent polarization.

Image source: https://www.allsides.com/about

Takeaway - Disinformation, fake news, and the role of social media

Online disinformation (fake news):

- is pervasive (penetrating)
- spreads quickly
- causes harm

Tip: think and check before sharing

Image source: https://south.euneighbours.eu/story/be-aware-disinformation-think-you-share/

CHECK:
- THE AUTHOR
- THE OUTLET
- THE SOURCES
- THE PICTURES
- WHAT FACT-CHECKERS ARE DOING

Sources (References and web links):

De Paor, S., & Heravi, B. (2020). Information literacy and fake news: How the field of librarianship can help combat the epidemic of fake news. *The Journal of Academic Librarianship*, *46*(5), 102218.

Igbinovia, M. O., Okuonghae, O., & Adebayo, J. O. (2020). Information literacy competence in curtailing fake news about the COVID-19 pandemic among undergraduates in Nigeria. *Reference Services Review*.

Islam, A. N., Laato, S., Talukder, S., & Sutinen, E. (2020). Misinformation sharing and social media fatigue during COVID-19: An affordance and cognitive load perspective. *Technological forecasting and social change*, *159*, 120201.

Countering disinformation: improving the Alliance's digital resilience

https://www.nato.int/docu/review/articles/2021/08/12/countering-disinformation-improving-the-alliances-digital-resilience/index.html

Study: False news spreads faster than the truth. MIT Sloan. (2018, March 8). Retrieved November 28, 2022, from https://mitsloan.mit.edu/ideas-made-to-matter/study-false-news-spreads-faster-truth

Johns Hopkins University, I. C. L. & G. I. of T. (2021, August 12). *Countering disinformation: Improving the alliance's digital resilience*. NATO Review. Retrieved December 22, 2022, from https://www.nato.int/docu/review/articles/2021/08/12/countering-disinformation-improving-the-alliances-digital-resilience/index.html

Perifanou, M., & Economides, A. (2019). The digital competence actions framework.

Smith, H., & Mansted, K. (2020). Weaponised deep fakes. http://ad-aspi.s3.amazonaws.com/2020-04/Weaponised%20deep%20fakes.pdf

Viviani, M., & Pasi, G. (2017). Credibility in social media: opinions, news, and health information—a survey. Wiley interdisciplinary reviews: Data mining and knowledge discovery, 7(5), e1209.

Walsh, D. (2020, March 23). *Study: 'Accuracy nudge' could curtail COVID-19 misinformation online*. MIT Sloan. https://mitsloan.mit.edu/ideas-made-to-matter/study-accuracy-nudge-could-curtail-covid-19-misinformation-online accessed 28.11.2022

Weiss, M. (n.d.). *Deepfake bot submissions to federal public comment websites cannot be distinguished from human submissions*. Technology Science. https://techscience.org/a/2019121801/

THANKS!
Any questions?