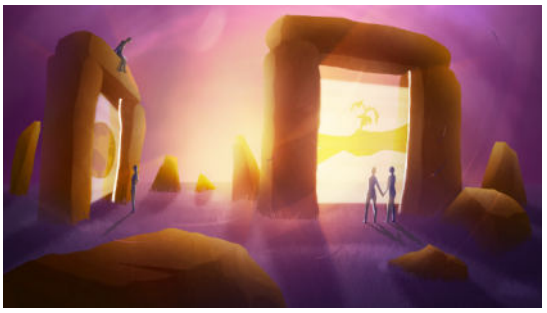
Educational document
QUIZZES

The Algowatch project focuses on educating the general public about the challenges of algorithms and Artificial Intelligence (Algo/IA Literacy) in the fields of information and digital citizenship. To this end, it has developed a set of resources for the 13+ age group: a series of quizzes, a serious game and an exhibition.
More information on the project: www. algowatch.eu

This document is designed to support teachers, trainers and educational mediators in their pedagogical use of quizzes, in and out schools.

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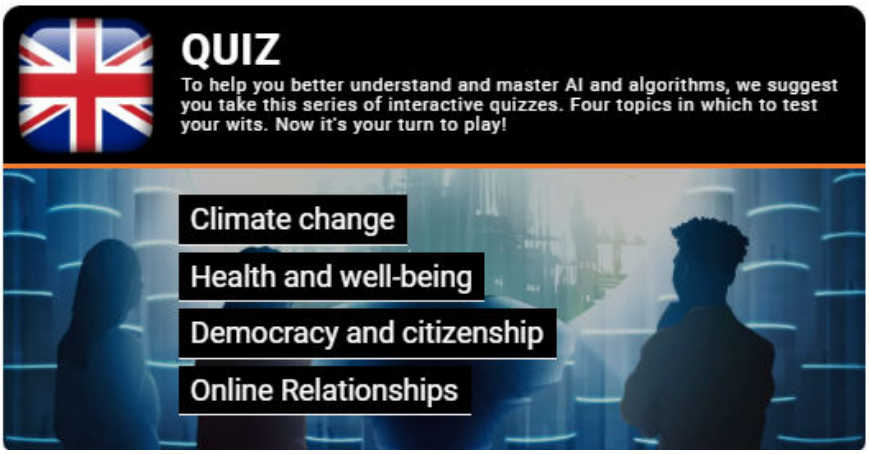
CONTENT



1) INTRODUCTION TO ALGO/AI LITERACY

Literacy is a particular mode of learning that takes into account not only the acquisition of knowledge, but also and above all its anchorage in the uses, imaginations, experiences and values of users. Media and Information Literacy focuses on the knowledge, uses, imaginations, experiences and values associated with media and information.

In MIL, Algo/AI literacy focuses on the role of algorithms and artificial intelligence systems in the production, consumption and dissemination of information and synthetic media. It has become a priority field for all those working for a digital culture that is chosen rather than imposed.

This literacy covers the following areas of competence, structured around the 3 main pillars of education, including digital literacy, as validated by the EU (Digcomp): Knowledge, Know-how and Attitudes.

- Know and understand how algorithms and AI systems work, what drives them and what motivates them to impact information and induce disinformation.
- Be able to analyze and criticize them
- Know how to use them
- Develop strategies to master them
- Position oneself as a citizen with regard to their use and regulation

2) COMPETENCE FRAMEWORK

Faced with the urgent need to accompany the transformations brought about by AI in the fields of information and disinformation, teachers, trainers and social workers working in the field of MIL find themselves relatively deprived in terms of a competence framework.

In response to this need, the Algowatch project has published a first framework for young people from secondary school onwards. It is based on the DigComp 2.2 European digital skills reference framework and its AI addendum where relevant.

Here are the 23 competencies of this MIL framework, which deals specifically with information-related knowledge, know-how and interpersonal skills. This framework has been used to create all Algowatch resources.

KNOWING > knowledge

to know, to understand, to be aware of...

1. Knowing what an algorithm is
2. Understanding how search engine ranking algorithms work
3. Knowing what recommendation algorithms can and cannot do
4. Understanding how predictive algorithms work
5. Understanding the definition and functions of artificial intelligence (AI)
6. Understanding generative artificial intelligence (GAI)
7. Understanding GAI: How LLMs generate answers Machine Learning, big data..
8. Do you speak AI? Knowing how to translate specific keywords (for non-English speakers): machine learning, big data, prompt…
9. Having a basic understanding of the history of algorithms
10. Understanding the algorithmic mechanisms that can encourage disinformation campaigns on social media

KNOWING-HOW

Be able to, know how to...

11. Being able to recognise the information produced by GAI
12. Knowing how to combat filter bubbles and echo chambers
13. Being able to judge the quality of the databases (and possible biases) on which the AI and algorithms are working
14. Developing strategies to combat algorithmic disinformation and hate speech
15. Limiting the influence of recommendation algorithms on social media
16. Assessing the reliability of the sources provided by AI
17. Limiting the influence of recommendation algorithms on websites
18. Being able to "converse" with the Generative AI knowing that it is not a human and without anthropomorphising it.

KNOWING HOW TO BE

Behave in a way that ... ("soft skills" and values)

19. Being sensitive to the ethical issues associated with informational algorithms
20. Having a well-informed and critical attitude towards the economic models underlying the systems offers, particularly free offers
21. Showing a willingness to fight against manipulation
22. Being prepared to work with others to obtain better and more reliable information
23. Being able to consider the different levels of AI risk in information in accordance with the AI Act
24. Using AI to project into everyday life and the jobs of the future

Download the full document, featuring links to DigComp 2.2
https://algowatch.eu/wp-content/uploads/2024/10/Competence-Framework-Algowatch-ENGLISH.pdf

3) PRESENTATION OF THE QUIZ SERIES

The Algowatch project offers a series of 4 quizzes structured around the competency framework. They are organized around 4 themes, to make them more concrete and engaging:

1) Climate change
2) Democracy and citizenship
3) Health and well-being
4) Online relations

These themes correspond both to today's major disinformation issues and to the interests of young people. They also make it possible to integrate AI/Algo-literacy MIL actions into a variety of school curricula: MIL, History, Geography, Economics, Life and Earth Sciences, Information Sciences, etc.

Each quiz offers around 15 activities built upon the competence framework. These activities, validated by teachers and tested by young people, are based on the daily practices of this audience, in line with the themes covered.
To stimulate learners, the activities alternate a variety of formats: multiple choice, fill-in-the-blank texts, “hot spots”, flash cards, true or false, drag & drop, etc.

Following a MIL approach, wrong answers are not punished. On the contrary, young people are invited to repeat as many times as necessary each activity for which they have not obtained the correct answer, to encourage learning by experimentation. The quizzes do not offer a score: everyone wins by playing!

The full content of each quiz and its link to the competency framework can be found in Appendix 1.

4) PROPOSITIONS OF PEDAGOGICAL SCENARIOS

Quizzes can be used:

1) As positioning tools

They enable the teacher/trainer to assess the skills of his or her group, so as to be able to design MIL actions that are as close as possible to the needs identified.

As intervention tools

Used in a collective workshop format, quizzes can be used to develop key Algo/AI literacy skills through group discussion.

Example of a 45 minutes intervention

- Target age group: 13 and up
- Theme: teacher's choice, linked to program
- General objective: to help young people understand information in the age of algorithms and AI, and the possible risks of disinformation linked to these tools.

Content	Timing	Animation	Objectives
Workshop presentation	5 mn		Establish the apprenticeship scheme
Quiz	30 mn	Collective mode A “game master” answers questions from a group computer connected to a video projector. All participants note what they have learned, what surprised them, etc. The trainer solicits reactions, frames the debate and provides additional information if necessary.	Acquire key skills in Algo/AI Literacy
Shared discussion	10 mn	Débat avec la classe	Reformulating learning

Example of a 90 minutes intervention

- Target audience: 13 and over
- Theme: students' choice (take a quick vote) or related to the program
- General objective: help young people understand information in the digital age.

Content	Timing	Animation	Objectives
Workshop presentation	5 mn		Establish the apprenticeship scheme
Gathering young people's perceptions of AI and informational algorithms	10mn	Debate Creation of a collective word cloud	Gather ideas, preconceived notions, fears, fascinations, hopes, criticisms... from the public in an opportunity/risk approach
Eye opener activity	10 mn	Which Face Is Real?	Understand the difficulty of recognizing AI-generated images. Know the clues that can help to detect them.
Quiz	50 mn	Collective mode A “game master” answers questions from a group computer connected to a video projector. All participants note what they have learned, what surprised them, etc. The trainer solicits reactions, frames the debate and provides additional information if necessary.	Acquire key skills in Algo/AI Literacy
Production of advice for peers	20 mn	Writing, in small groups, based on notes taken by participants during the quiz	Reformulate learning Make them your own Encourage dissemination
Final summary by the trainer	10 mn	Reflecting back on the session with a few key words	Summary of skills worked on and changes in attitudes observed or to be monitored

Please note: all the quizzes explore the same skills, but from different angles and with different activities. It is therefore possible to use two different quizzes, one as an input, the other as an output, to assess the skills acquired during an Algo/AI-literacy course.

APPENDIX 1

Full quizzes content

These documents will enable you to consult the full content of each of the 4 quizzes, so you can prepare your intervention, select the skills you want to focus on.

They describe, for each quiz :

- The types of activities proposed
- The competence addressed in each activity
- The questions / correct answers
- Feedbacks to the player

APPENDIX 1.1
« Democracy and Citizenship”

In blue, instructions
In bold, correct answers
In italics, feedback given to the player

Activity 1 (True/False))
Competency 3 (Knowledge): Know what a recommendation algorithm is

Social media recommendation algorithms are programmed to favour the political currents and opinions of social networking platforms.

- True
- **False**

Feedback: Most social media are there to do business, not politics. Recommendation algorithms highlight the content most likely to appeal to users, whatever their opinions. What's important is that you click on them and stay in front of your screen for a long time, so that advertising pages can be placed. This is what's known as the "attention economy."

***

Activity 2 (Multiple choices)
Competency 2 (Knowledge): Understand how search engine ranking algorithms work

When I type on Google: “freedom of expression” without being logged in to my account, the search engine chooses its answers according to (4 answers possible):

- **Site names, article names**
- **Number of views on page or video**
- Quality of illustrations
- Length of texts
- **Date of on-line publication**
- Number of people who don't watch to the end

Feedback:If you're not logged in to your account, it's mostly the pages with the most views that rise to the top of the list, the ones that “make the buzz.” This can change according to current events.

***

Activity 3 (Flash cards)
Competency 10 (Knowledge): Know the functions of the main algorithms and AIs

Turn over the cards to find out what's behind these terms

Results:

Sorting or ranking algorithms:
Sorting algorithms are used by search engines to rank results according to content and online behavior

Recommendation algorithms:
Recommendation algorithms are used to suggest results or highlight personalized content according to each user's preferences.

Machine learning:
Machine learning enables computer programs to draw on user experience to improve autonomously.

Artificial Intelligence:
"Artificial Intelligence" refers to programs that seek to imitate brain functions to solve problems, make decisions, create, translate...

LLM (Large Language Model) :
LLMs (Large Language Model) are AIs that can recognise text (and sound and image) and create content from very large databases. They work statistically.

***

Activity 4 (Multiple choices)
Competency 10 (Knowledge): Understand the algorithmic mechanisms that can encourage disinformation campaigns on social media

John is an active member of the party for the Safeguarding of Protected Ants. He follows all the accounts that support his cause. What content could Facebook promote for him? (4 answers possible).

- **Messages from ecologist accounts**
- Vegan ads
- **Posts from animalist parties**
- **Articles on the ongoing ant revolt**
- The address of his nearest shrink

Feedback: Facebook knows its users well, thanks to their interests, the accounts they follow, the messages they post, and so on. So there's a good chance that John will be offered content that defends animals. Even the strangest.

***

Activity 5 (Multiple choices)
Competency 6 (Knowledge): Understanding generative artificial intelligence (GAI)

What is the name of the algorithms that can be used in the justice system to assess the risk of recidivism and predict trial outcomes? (one answer possible)

- Legal algorithms
- **Predictive algorithms**
- Statistical algorithms
- Randomised algorithms

Feedback: These algorithms make their predictions from databases that are not always reliable. They also have difficulty taking personal histories into account. It is therefore crucial to maintain fair trials and the role of the judge.

Activity 6 (True/False)
Competency 6 (Knowledge) : Understanding generative artificial intelligence (GAI)

In 2022, in Denmark, a collective of artists created the Synthetic Party, a new political party whose representative is “Leader Lars”, an “artificial intelligence”. The party's political ideas are all derived from AI, to represent the 20% of Danes who don't vote. Leader Lars ran for the office.

- True
- **False**

Feedback: the party was indeed created by a ChatGPT-type Chatbot, but its candidate only obtained 11.000 signatures and they needed 20.000 to run.

***

Activity 7 (Fill in the blank)
Competence 19 (Know-how): Be sensitive to ethical issues associated with informational algorithms

Youtube, Spotify and social media are also used to mobilise and share messages thanks to their .... algorithms.

- **recommendation**

Feedback: recommendation algorithms have helped people spread messages and organise demonstrations on social networks.

***

Activity 8 (Multiple choices)
Competency 10 (Knowledge): Understand the algorithmic mechanisms that can encourage disinformation campaigns on social media

The effectiveness of information warfare is explained by the fact that (several answers possible) : (3 answers possible)

- **Fake news circulate much faster than serious information**
- People believe everything they see or read on the Internet
- **Some AIs can create fake news in seconds**
- **Algorithms highlight fake news, because they creates buzz**
- The ban on spreading false information doesn't apply online

Feedback: The Internet didn't invent propaganda, but social networks equipped with AI and algorithms make it possible to manipulate opinion in a much more powerful way at very low cost. You should know that this is forbidden and punishable by law.

***

Activity 9 (hot spot)
Competence 11 (Know-how): Be able to recognize the information produced by AI

We asked an AI to generate an image of young people demonstrating with a banner displaying shoes. It made a few mistakes. Find out what happened.

Feedback

1) The two shoes are different. The AI took us at our word: we didn't specify in the prompt that they were one pair.
2) Strange thing on this person's shoulders! The AI invented this shape from scratch.
3) The shadows are all over the place. AIs often find it difficult to manage shadows and light sources.

***

Activity 10 (Multiple choices)
Competence 14 (Know-how): Develop strategies to combat algorithmic disinformation and hate speech

On Instagram, I come across reels from someone who claims to be a well-known politician and publishes info so that I can encourage my friends to vote for his party. I can: (2 answers possible)

- **Check that it's not a fake account**
- **Report it**
- Post a comment to attract attention

Feedback: It's illegal, report it. And above all, avoid commenting on these kinds of videos (even to say you hate them): Instagram will consider that you're interested because you're reacting, and will soon suggest other videos of the same type.

***

Activity 11 (Multiple choices)
Competence 18 (Know-how): Conversing with generative AI

You're a class delegate and you'd like to organise an awareness campaign for the systematic introduction of French fries on the canteen menu. To do this, you'd like to write a leaflet. What would you say to Chat GPT or another generative AI to get a convincing text? (4 answers possible)

- **Tell whom you are addressing your text**
- **Write your request or instruction (prompt) as precisely as possible**
- Avoid asking a question that is too long and complicated
- Give a list of keywords
- **Ask to change anything that doesn't seem relevant and explain why**
- **Tell what your role is (who you are)**

Feedback: AIs don't care how long the questions are. They need as much clear information as possible. If you're not satisfied with their answers, try again, and above all ask for and check the SOURCES before publishing.

***

Activity 12 (True/False)
Competency 10 (Knowledge): Understand the algorithmic mechanisms that can encourage disinformation campaigns on social media.
AI-powered tools can make politicians say things they didn't actually say.

- **True**
- False

Feedback: Yes, it's possible, and hard to spot. Fortunately, there are fact-checkers on the lookout!

***

Activity 13 (Multiple choices)
Competency 20 (value): Demonstrate an informed and critical attitude towards the economic models underlying offers, particularly free offers.
There are popular accounts on Tiktok that publish blatantly false content on social issues such as school, immigration or sports. What should you do about this? (2 answers possible).

- **Keep in mind that TikTok's objective is to make money**
- **Use official accounts for information (check RTE, BBC, Irish Times, Irish Independent, journal.ie)**
- Systematically comment on the publications in question to point out that they are false
- Share publications with friends to warn them".

Feedback: Ignore the errors that are circulating or correct them? The choice isn't always easy: by debating, you can help to combat these fake news. But by fueling the debate around a post, you also make them more visible.

***

Activity 14 (Multiple choices)
Competence 22 (Value): Willingness to collaborate with others to obtain better and more reliable information

You see a very funny hoax about an election candidate. To avoid this polluting the debates, you can adopt the following attitudes: (2 answers possible)

- **Even if you know it will make your friends laugh, you don't relay it.**
- **You warn all your contacts to avoid, in general, relaying political hoaxes during elections without mentioning a link**
- You and your friends create another hoax to cloud out the issue.

Feedback: You can laugh at anything, but during election time it's best to avoid relaying hoaxes or jokes that could influence opinion. And especially avoid creating them!

***

Activity 15 (Multiple choices)
Competence 23 (Value): Be able to consider the different levels of AI-related risks in information in accordance with the AI Act.

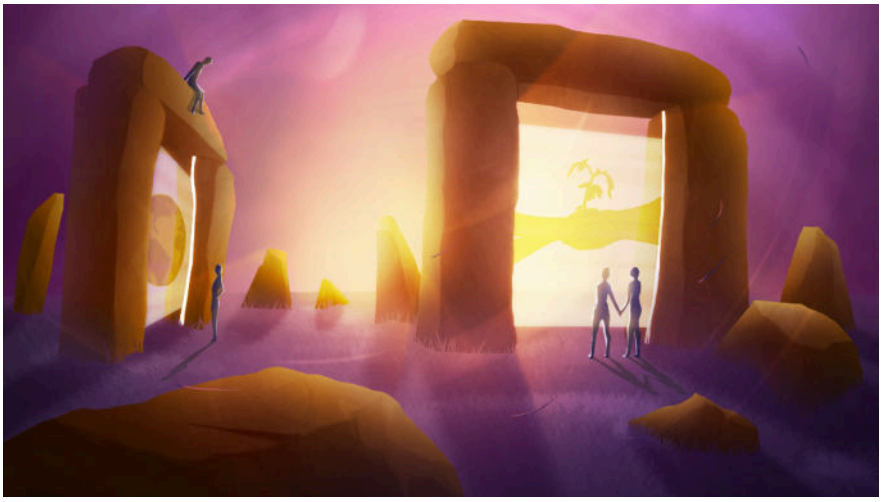
AIs are controlled according to the seriousness of the risks they can pose. Imagine a research laboratory wishing to create an AI capable of modifying all the words of a politician or artist to give them a conspiracy connotation. The development of this AI would be considered by law as :

- **Unacceptable**
- High risk
- Average risk
- Low risk

Feedback: this type of technology could endanger democracy, the law prohibits laboratories from trying to develop it.

APPENDIX 1.2

Online Relationships



In blue, instructions
In bold, correct answers
In italics, feedback given to the player

Activity 1 (True/False))
Competency 3 (Knowledge): Know what a recommendation algorithm is

Algorithms influence our social lives.

- **True**
- False

Feedback: Our social life also takes place online. On social networks, it's algorithms that suggest we follow certain people, be friends with others... They play an important role in our relationships.

***

Activity 2 (Multiple choices)
Competency 2 (Knowledge): Understand how search engine ranking algorithms work

When I type on Google: "ethnic minority" without being logged into my account, the search engine chooses its answers according to (3 possible answers):

- **Names of sites and articles**
- **Number of views on page or video**
- Quality of illustrations
- Length of texts
- **Date of online publication**

Feedback: if you're not logged in to your account, it's mainly the pages with the most views that rise to the top of the list. Beware: on sensitive subjects such as this, racist sites driven by robots can sometimes appear at the top of the results.

***

Activity 3 (Flash cards)
Competency 10 (Knowledge): Know the functions of the main algorithms and AIs

Turn over the cards to find out what's behind these terms

Results:

Sorting or ranking algorithms:
Sorting algorithms are used by search engines to rank results according to content and online behavior

Recommendation algorithms:
Recommendation algorithms are used to suggest results or highlight personalized content according to each user's preferences.

Machine learning:
Machine learning enables computer programs to draw on user experience to improve autonomously.

Artificial Intelligence:
“Artificial Intelligence” refers to programs that seek to imitate brain functions to solve problems, make decisions, create, translate...

LLM (Large Language Model) :
LLMs (Large Language Model) are AIs that can recognise text (and sound and image) and create content from very large databases. They work statistically.

***

Activity 4 (Multiple choices)
Competency 10 (Knowledge): Understand the algorithmic mechanisms

Lea uses a dating platform. How does the prediction algorithm help her find a profile that matches her? (3 answers possible)

- By presenting her with as many profiles as possible
- **By listing all the suitors she has ignored**
- **By studying the preferences she has listed**
- **By looking in detail at who she "likes" and what they have in common**
- By analyzing the physical characteristics of the contacts on her phone

Feedback: These algorithms propose profiles based on the preferences listed but also on user behavior. They don't go snooping around your phones.

***

Activity 5 (True/False)
Competency 6 (Knowledge): Understanding generative artificial intelligence (GAI)

Now, with Artificial Intelligence, celebrities can create lifelike clones that you can chat with.

- **True**
- False

Feedback: Yes, technology makes it possible. It's fun and very realistic! Just remember that you're not talking to celebrities, but to their AI avatars.

***

Activity 6 (Fill in the blank)
Competence 19 (Know-how): Be sensitive to ethical issues associated with informational algorithms

In a report published in 2023, the World Economic Forum sets at ... % the proportion of women working in AI.

→ **30**

Feedback: 30% is still not enough, but progress is being made and there are more and more women in the IT sector.

***

Activity 7 (Multiple choices)
Competency 10 (Knowledge): Understand the algorithmic mechanisms that can encourage disinformation campaigns on social media

The effectiveness of hate campaigns (racist, anti-Semitic, sexist) is partly explained by the fact that (3 answers possible) :

- **Shocking messages circulate much faster than serious information**
- People believe everything they see or read on the Internet
- **Some AIs can create hate messages in a matter of seconds**
- **Algorithms highlight news that makes people react, because it creates a buzz**
- The ban on spreading hate messages doesn't apply online

Feedback: The Internet didn't invent hate speech, but social networks equipped with AI and algorithms make it possible to circulate more effectively at very low cost. You should know that this is forbidden and punishable by law.

***

Activity 8 (hot spot)
Competence 11 (Know-how): Be able to recognize the information produced by AI

We asked an AI to generate a Mona Lisa that looked like an influencer. It made a few mistakes. Find out what happened.

Feedback:

1) *As you may have noticed, it's not Mona Lisa's face! AIs are good at faking things. But not always.*
2) *The fabric and hair merge. Strange... AIs sometimes take liberties with texture management*

***

Activity 9 (Multiple choices)
Competence 14 (Know-how): Develop strategies to combat algorithmic misinformation and hate speech

A friend of yours has been shadowbanned (invisibilised) for making a racist joke. What would you advise them to do to get the shadowban lifted? (3 answers possible)

Stop using forbidden hashtags
Disconnect from social networks for a while
Change their name
Be careful not to post anything that could cause problems
Try to apologise

Feedback: Yes, another trick of the algorithms! When you are shadowbanned, the platform reduces the visibility of your content for a limited time. There's no need to apologise; what matters to the algorithms is that you behave in a way that respects the rules.

***

Activity 10 (Multiple choices)
Competence 18 (Know-how): Conversing with generative AI

You want to please your friends. You ask a specialised Generative AI to compose a song (a new one) that will put everyone in a good mood. What instructions do you give this AI? (3 answers possible)

Enter the lyrics of your favorite song
Give it complete freedom, its a pro
Tell it what kind of music your friends prefer
Write your prompt as precisely as possible
Ask it to add a few insults, they might like that
Tell it you want something upbeat

Feedback: AIs do not take into account the length of questions. There's no point in copying existing content; the instructions must include as much clear information as possible. As for insults, AI Generated Images are obliged to refuse them.

***

Activity 11 (True/False)
Competency 10 (Knowledge): Understand the algorithmic mechanisms that can encourage disinformation campaigns on social media.

AI-powered tools can make people say things they never said and ruin their popularity.

- **True**
- False

Feedback: Unfortunately, this does happen. But the opposite is also true: they can help people create avatars that make them popular.

***

Activity 12 (Multiple choices)
Competency 20 (value): Demonstrate an informed and critical attitude towards the economic models underlying offers, particularly free offers.

On Tiktok, certain challenges bring together an impressive number of people. They can be dangerous, but the more people there are, the more money TikTok makes from advertising. What's the best way to deal with this? (2 answers possible)

Report dangerous challenges
Respond to deter others from participating
Have fun in a different way

Feedback: Ignore dangerous challenges or correct them? The choice isn't always simple: by debating, you can help friends to stay away. But by fueling the debate around a challenge, you also make it more visible.

***

Activity 13 (Multiple choices)
Competence 22 (Value): Willingness to collaborate with others to obtain better and more reliable information

You want to use the power of algorithms to promote an account that offers great movie reviews. How can you do it? (3 answers possible)

You relay its posts by recommending them
You collect screenshots of the reviews
You advise them on highly influential accounts
You like their reviews.

Feedback: Mobilising communities around quality content is a great idea.

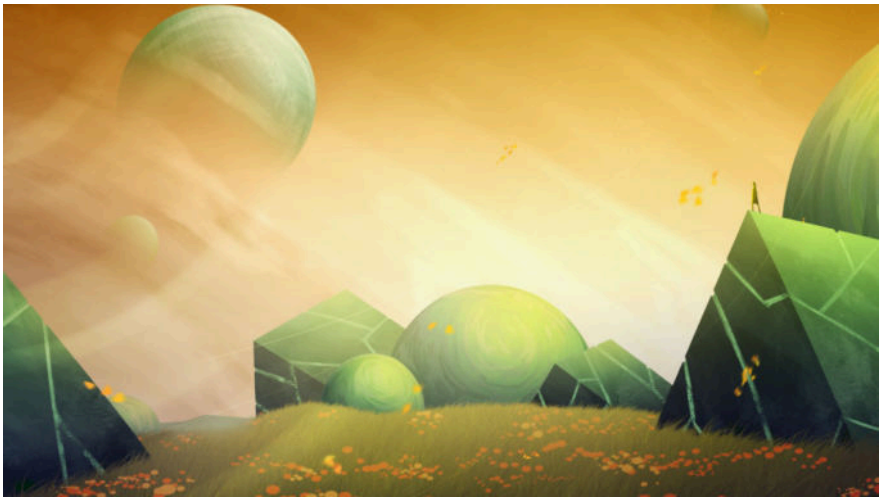
Activity 14 (Multiple choices)
Competence 23 (Value): Be able to consider the different levels of AI-related risks in information in accordance with the AI Act.

AIs are governed according to the seriousness of the risks they may pose. Imagine an AI capable of doing your grandmother's online shopping, taking into account her tastes and health concerns. The development of such an AI would be considered by law as : (one answer possible)

Unacceptable
High risk
Medium risk
Low risk

Feedback: As this type of technology could expose sensitive personal data, the law prohibits companies and laboratories from trying to develop it.

APPENDIX 1.3
« Climate change »



In blue, instructions
In bold, correct answers
In italics, feedback given to the player

Activity 1 (True/False))
Competency 3 (Knowledge): Know what a recommendation algorithm is

The algorithms of ... are used to sort search results based on the tastes of users.

- **recommendation**

Feedback: Recommendation algorithms determine what you should like based on your browsing history, your location, the interactions you have with your community, or the ads you click on. And sometimes they're wrong!

***

Activity 2 (Multiple choices)
Competency 2 (Knowledge): Understand how search engine ranking algorithms work

When I type into Google: “Why is it colder now in winter than it used to be?”, the engine chooses its answers according to (5 possible answers) :

The most consulted sources that cite the keywords used
Weather data
Scientific articles
Climate sceptic sites that question global warming and its consequences
My previous Google searches
The videos I watch on Youtube

Feedback: Not everyone gets the same results on Google. It depends on the sites we visit and the requests we make (our google search history).

Activity 3 (Flash cards)
Competency 10 (Knowledge): Know the functions of the main algorithms and AIs

Turn over the cards to find out what's behind these terms

Results:

Sorting or ranking algorithms:
Sorting algorithms are used by search engines to rank results according to content and online behavior

Recommendation algorithms:
Recommendation algorithms are used to suggest results or highlight personalized content according to each user's preferences.

Machine learning:
Machine learning enables computer programs to draw on user experience to improve autonomously.

Artificial Intelligence:
"Artificial Intelligence" refers to programs that seek to imitate brain functions to solve problems, make decisions, create, translate...

LLM (Large Language Model) :
LLMs (Large Language Model) are AIs that can recognise text (and sound and image) and create content from very large databases. They work statistically.

***

Activity 4 (Multiple choices)
Competency 10 (Knowledge): Understand the algorithmic mechanisms

Lady Watchful ordered a survival kit from Amazon and watched videos about the end of the world on Twitch. Based on predictive algorithms, what types of books might Amazon offer her on her next visit? (2 answers possible)

A novel by Jules Vernes
An essay on the dubious origins of Covid
A book about the end of the world
An international atlas

Feedback: In this case, Amazon predicts that, since she's interested in survival kits, Lady Watchful must like books about the end of the world, or conspiracies in general.

***

Activity 5 (True/False)
Competency 6 (Knowledge): Understanding generative artificial intelligence (GAI)

Generative Artificial Intelligence (GAI) is capable of producing new works (texts, images, videos, sound). True or false?

True
False

Feedback: GAI uses millions of texts, images, videos and music to create new works based on this data. Its productions get better every day.

***

Activity 6
Competence 9 (knowledge) : *Having a basic understanding of the history of algorithms*

Link the events to the corresponding dates

The word “algorithm” was born in → **VII century**
The first TV weather report created 100% with AI was broadcast in → **2023**
A supercomputer beat Gari Kasparov at chess in → **1997**

***

Activity 7 (Multiple choices)
Competency 10 (Knowledge): Understand the algorithmic mechanisms

What happens to an Instagram user who views several posts written by climate sceptic influencers who claim that there is no global warming? What might they see appear on their account?: (2 answers possible)

Other posts denying global warming.
A weather report.
Very contradictory opinions on the subject.
Increasingly frequent recommendations from climate-sceptic accounts.

Feedback: The term “filter bubbles” refers to the fact that online algorithms tend to offer us content we agree with. No contradiction, no debates. It's perfect for confirming the ideas of conspiracy theorists!

***

Activity 8 (hot spot)
Competence 11 (Know-how): Be able to recognize the information produced by AI

We asked an AI to generate an image of a penguin on an ice floe. It made a few mistakes. Find out what happened.

Feedbacks

1) *This halo of light is pretty. But it makes no sense. AIs tend to create strange lighting effects.*
2) *The two wings are different. AIs can make symmetry errors.*

***

Activity 9 (Multiple choices)
Competence 14 (Know-how): Develop strategies to combat algorithmic misinformation and hate speech

I'm tired of receiving this type of post on TikTok , I can: (2 responses possible)

Scroll quickly
Report it
Criticise it in the comments
Block the account

Feedback: The idea is to show TikTok that you're not interested. Note that if you comment to criticize, TikTok considers that you are interested in the subject.

***

Activity 10 (Multiple choices)
Competence 18 (Know-how): Conversing with generative AI

You'd like to know whether global warming has an impact on human fertility. And, if so, what you can do to protect yourself. To improve your chances of getting a good answer from your chatbot, you (3 answers possible)

Ask as general a question as possible to make sure you don't miss anything.
Write your request (prompt) as precisely as possible.
Avoid asking too long a question.
Give a list of keywords.
Ask follow-up questions if the answer is not clear or complete.
Give examples.

Feedback: AIs don't care how long the questions are. On the other hand, it's better to be very precise to get what you're looking for. And don't hesitate to ask questions about the answers you get and, above all, the sources you use. In all cases, CHECK THE ANSWER!.

***

Activity 11 (True/False)
Competency 10 (Knowledge): Understand the algorithmic mechanisms that can encourage disinformation campaigns on social media.

Climate sceptic theories can waste time in the fight against global warming. True or false?

- **True**
- False

Feedback: inevitably, while we're wasting our time debating controversial theories, we're not doing anything else.

***

Activity 12 (Multiple choices)
Competency 20 (value): Demonstrate an informed and critical attitude towards the economic models underlying offers, particularly free offers.

Social networks try to keep you in front of your screen as long as possible to make more money from advertising. They often offer catchy content, not necessarily very scientific.To avoid this, if you're looking for information on climate change, you can: (3l possible answers)

Go to reference sites such as that of the IPCC (Intergovernmental Panel on Climate Change).
Consult popular science channels recognized for their rigor.
Stop informing yourself.
Consult books recommended by your teachers.

Feedback: Bravo! We call this model the “attention economy”, where what makes money is the time we manage to get people to spend in front of their screens.Having a list of sites, programs or people to turn to for information and verification of this type of content has become indispensable.

***

Activity 13 (Multiple choices)
Competence 22 (Value): Willingness to collaborate with others to obtain better and more reliable information

You come across a Live TikTok proclaiming loud and clear that climate change is due to solar action, not human activity. You can: (3 answers possible

Report it to the platform
Contact the IPCC.
Comment and send a link to a site that proves the contrary.
Consult a fact-checkers website.
Ask your friends to get involved to show that it's not serious.

Feedback: Yes, you can help stop the republication of this Live by mobilising your community.

***

Activity 14 (Multiple choices)
Competence 23 (Value): Be able to consider the different levels of AI-related risks in information in accordance with the AI Act.

AIs are controlled according to the seriousness of the risks they may pose. In your opinion, an AI that modifies plants to capture more greenhouse gases would be considered: (one answer possible)

Unacceptable
High risk
Medium risk
Low risk

Feedback:Yes, anything involving the transformation of living organisms is considered very risky and is closely monitored.

APPENDIX 1.4
Health and Well-Being

In blue, instructions
In bold, correct answers
In italics, feedback given to the player

Activity 1 (Multiple choices)
Competency 3 (Knowledge): Know what a recommendation algorithm is

To offer you personalized content, recommendation algorithms are based on ... (3 answers possible) :

- **Your geolocation**
- **The date of your last connection**
- **The content you have commented on**
- Your goldfish's first name

Feedback: Recommendation algorithms determine what you should like based on your past browsing, where you are, the interactions you have with your community, or the ads you click on. It's the principle of "if you liked this, then you'll like that too".

***

Activity 2 (Multiple choices)
Competency 2 (Knowledge): Understand how search engine ranking algorithms work

When I type on Youtube: "Grandma's Acne Recipe" without being connected to my account, the search engine chooses its answers according to (3 possible answers):

- **Video titles**
- **Number of views and comments**
- Image quality
- Video length
- **Video upload date**

Feedback:If you're not logged in to your account, it's mostly the videos with the most views that rise to the top of the list, the ones that "make the buzz." Don't be too surprised if you get some weird advice (and go to your doctor instead).

Activity 3 (Flash cards)
Competency 10 (Knowledge): Know the functions of the main algorithms and AIs

Turn over the cards to find out what's behind these terms

Results:

Sorting or ranking algorithms:
Sorting algorithms are used by search engines to rank results according to content and online behavior

Recommendation algorithms:
Recommendation algorithms are used to suggest results or highlight personalized content according to each user's preferences.

Machine learning:
Machine learning enables computer programs to draw on user experience to improve autonomously.

Artificial Intelligence:
"Artificial Intelligence" refers to programs that seek to imitate brain functions to solve problems, make decisions, create, translate...

LLM (Large Language Model) :
LLMs (Large Language Model) are AIs that can recognise text (and sound and image) and create content from very large databases. They work statistically.

***

Activity 4 (Multiple choices)
Competency 10 (Knowledge): Understand the algorithmic mechanisms

Nelly often watches "beauty tips" videos on Instagram, which she likes to comment on and share again. What content could the social network highlight for her? (3 answers possible)

Other beauty videos
Make-up ads
Organic cotton clothing
A post on the benefits of intermittent fasting
The address of a training center to become a cook

Feedback: Instagram knows its users! Since Nelly is interested in beauty tips, the platform's algorithm predicts that she will buy makeup, seek even more advice, or even be interested in intermittent fasting, which claims to make you slim (but carries real risks).

***

Activity 5 (True/False)
Competency 6 (Knowledge): Understanding generative artificial intelligence (GAI)

Chat GPT, understands you and reads your mind! It's the miracle of Generative Artificial Intelligence (GAI).

True
False

Feedback: the GIA does not "understand" the meaning of sentences. It's a machine, which uses statistics to provide the most likely response to our requests.

Activity 6 (Associate)
Competence 8: Having a basic understanding of the history of algorithms

Associate

- Algorithms that predict which diseases you're likely to catch can be wrong, especially if → **the quality of the data they have been provided with is poor**
- Robots can "learn" from data if humans provide them with → **mathematical models to do it with**
- The AI boom is due to → **the amount of data available and the computing power of new computers**

***

Activity 7 (Multiple choices)
Competency 10 (Knowledge): Understand the algorithmic mechanisms

What happens to a TikTok user who watches several videos offering advice on how to combat stress? They may see the following appear on their account: (4 answers possible):

Videos of so-called experts promoting their methods
Users recounting their experiences
Tips on how to heal for free and save on therapist sessions
Lots of recommendations on mental health topics

Feedback: All the answers were right. Algorithms try to know what you want, and tend to continually offer content they've identified as being of interest to you.

***

Activity 8 (hot spot)
Competence 11 (Know-how): Be able to recognize the information produced by AI

We asked an AI to generate an image of neatly arranged boxes of capsules. It made a few mistakes. Find out what happened.
Feedbacks:

1) *This type of rim is not possible. Otherwise, the jar would be broken. AIs sometimes have trouble with contours.*
2) *This capsule is going the wrong way, it defies gravity! AIs have no sense of the laws of physics.*

***

Activity 9 (Multiple choices)
Competence 14 (Know-how): Develop strategies to combat algorithmic disinformation and hate speech

I'm tired of receiving videos on Tiktok of people with lice on their heads. I can: (one answer possible)

Don't look at them or you'll catch them
Report them
Tell my friends they're horrible to see
Post a comment to complain

Feedback: It's awful, but it's not illegal, and pointing it out is pointless. Above all, avoid commenting on such videos (even to say you hate them): TikTok will consider that you're interested because you're reacting, and will soon offer you other videos of the same type.

Activity 10 (Multiple choices)
Competence 18 (Know-how): Conversing with generative AI

You'd like to write a comparative text between classical yoga and dynamic yoga. How can you ask ChatGPT or another chatbot for the best results? (3 answers possible)

Tell them to whom you are addressing your text
Write your request or prompt as precisely as possible
Avoid asking a question that is too long and complicated
Give them a list of keywords
Ask them to change anything that doesn't seem relevant and explain why.

Feedback: It's better to be very precise and provide clear information to get what you're looking for. Then don't hesitate to ask questions about the answers you get and, above all, the sources you use. In all cases, CHECK!

***

Activity 11 (True/False)
Competency 10 (Knowledge): Understand the algorithmic mechanisms that can encourage disinformation campaigns on social media.

Diets that make you lose weight, fanciful health advice, cosmetic surgery procedures, videos to get rid of anxiety in 4 minutes... Driven by algorithms, some online content that makes you earn money can be dangerous to your health.

True
False

Feedback: When it comes to health, we don't take risks, we verify information.

***

Activity 12 (Multiple choices)
Competency 20 (value): Demonstrate an informed and critical attitude towards the economic models underlying offers, particularly free offers.

We're used to getting free diet advice from our favorite influencers. But how do they make money? (3 answers possible)

By inserting ads in their content
By getting paid by the platforms to which they bring a large advertising audience
Thanks to European subsidies
By selling products
By selling your data

Feedback: Advertising! The more people influencers can attract, the higher the number of followers they can get and the longer they can keep them on their account, the more money they'll make. Otherwise, rest assured, no one has the right to sell your personal data.

***

Activity 13 (Multiple choices)
Competence 22 (Value): Willingness to collaborate with others to obtain better and more reliable information

An AI has created a “psychologist” avatar who claims to answer all your most personal questions. What do you do? (2 answers possible)

- **You find out before you trust him**
- You report it immediately
- **You ask your community to help you investigate**
- You change your name, just so you don't get noticed

Feedback: You don't put your mental health in the hands of an AI you don't know.

***

Activity 14 (Multiple choices)
Competence 23 (Value): Be able to consider the different levels of AI-related risks in information in accordance with the AI Act.

In your opinion, an AI that could suggest interpretations of our blood tests to doctors - who would have the final say - would be considered. (one answer possible)

- Unacceptable
- High risk
- Medium risk
- **Low risk**

Feedback: AIs are controlled according to the seriousness of the risks they may pose. Zero risk doesn't exist, but it's low here, and this type of technology is promising. Thank you, AI.

APPENDIX 2

What if ?




-

This collaborative document aims at gathering feedback and tips from teachers, social workers, animateurs to be prepared in case difficult or surprising situations arise during workshops.

Link to the document