

Understanding AI: Rights, safety and wellbeing

Year 9/10, Lesson 3: How does generative AI affect our understanding of the world?



How does generative AI affect our understanding of the world?

This lesson pack for key stages 2–4 has been designed to support pupils' AI literacy. This is the third of four lessons for students in years 9 and 10. It focuses on the role of generative AI in spreading mis- and disinformation online and strategies that can be used to help fact-check online content.

These lessons should not be taught in isolation, but always as part of a planned, developmental PSHE education programme. They are best used within the context of online safety or digital literacy.

Learning objective

To learn about generative AI and mis- and disinformation online.

Learning outcomes

Students will be able to:

- explain how generative AI has increased the amount, and spread, of mis- and disinformation online
- assess strategies for fact-checking content created by generative AI
- describe the possible impacts of mis- and disinformation generated by AI

Resources required

- Box or envelope for questions
- Resource 1: *How does AI spread misinformation?* [support option, as required]
- Resource 2: *Source checking* [one cut-up set per group].
- Resource 2a: *Helping Poppy* [support option, as required]
- Resource 3: *Mis- and disinformation* [one per group]

Climate for learning

Make sure you have read the accompanying teacher guidance notes before teaching this lesson. These include relevant subject knowledge for this topic, guidance on creating a safe learning environment, and curriculum links.

Baseline assessment

Introduction (Slides 8–10, 3 mins)

Establish or revisit ground rules using slide 9. Explain that if students have worries or questions during or after the lesson that they do not want to raise in front of the class, they can write their question on a piece of paper, anonymously or with their name, and put it in the question box.

Introduce the learning objective and outcomes on slide 10. Explain that today's lesson will explore how generative AI is increasing the amount, and spread, of mis- and disinformation online, what the consequences of this might be and strategies that can help fact-check online information.

Baseline assessment activity (Slide 11, 10 mins)

Use slide 11 to share the historical example of 'fake news' and ask students to answer the questions:

- How has the way 'fake news' is spread, changed from the historical example?
- How has the use of generative AI increased the amount, and spread, of 'fake news'?
- What can people do to help identify if something is fake?
- Why is it important to fact-check information online?

Take feedback from volunteers to establish students' starting points and notice any common themes in their responses. Consider how the lesson may need adapting depending on any gaps or misconceptions identified. For example, if students are unable to identify how generative AI has increased the amount, and spread, of mis- and disinformation, you may want to spend more time exploring this in the first activity.

Core activities

How does AI spread misinformation? (Slides 12–13, 10 mins)

Explain that creating and sharing content has become much easier since the introduction of the internet and social media. Now – with generative AI tools – stories, images and videos can be created to appear real, meaning the spread of mis- and disinformation is far more common and far reaching. Ask the class what mis- and disinformation mean, before sharing the definitions on slide 12.

Next, share the statements on slide 13, and ask pairs to discuss how each statement about generative AI could lead to the spread of mis- and disinformation.

Take feedback, highlighting key learning:

- *Generative AI tools can give answers that are based on the patterns in the training data but are actually incorrect (known as 'hallucinations') which can lead to the spreading of misinformation.*
- *Generative AI tools are trained to produce the most likely outcome based on the user prompts. Because the information on the internet includes bias, stereotypes, conspiracy theories, incorrect information, fake news and outdated information, the outcome could reproduce inaccurate information. The more times a piece of information is repeated in the training data,*

which often draws on content from the internet, the more likely it is to be repeated via a generative AI tool.

- *People may use generative AI to create fake news, photos or videos or fake messages/posts to spread disinformation.*
- *People might share stories or posts even if they don't think they are real. Others may then think they are real, leading to further spreading of mis- and disinformation. People may be less critical of content generated by AI tools, meaning they are more likely to trust it – especially if they don't have a good understanding of how generative AI tools work.*



Support: Give students **Resource 1: How does AI spread misinformation?** and ask them to draw lines to match each statement to its possible outcome.



Challenge: Ask students to suggest reasons why people might be motivated to spread disinformation using generative AI.

Algorithms and fact checking (Slides 14–16, 12 mins)

Show slide 14 and explain that algorithms prioritise online content based on popularity not accuracy. This can lead to skewed facts when popular, but misleading or incorrect, content is included in the data used to train generative AI tools. Where bias is present in the training data, the generative AI tool may learn and replicate these biases. This can lead to reinforced stereotypes and misinformation in the content generated.

Using slide 15, give groups **Resource 2: Source checking** and ask students to organise the strategies for fact-checking online information into a diamond 9, with those strategies that are most reliable at the top, and least reliable at the bottom. Alternatively, students could number the cards from one to nine to reflect which they believe are the most to the least reliable.

Take feedback, highlighting key learning:

- *Checking against multiple sources, using reliable sources and using fact-checking tools are all reliable ways to fact-check online information, although can be time consuming.*
- *Many generative AI videos are shorter than standard videos found on most social media platforms and have poor resolution (e.g. blurry edges). Although not foolproof, this can be useful as a quick sense check before using more reliable strategies such as checking against multiple sources.*
- *Checking for spelling, grammar and tone and looking for continuity between the images and text can be slightly quicker ways to identify if content may not be genuine, however this method is not foolproof and should be supported by strategies such as checking reliable sources.*
- *The effectiveness of discussing what has been seen online with friends or trusted adults, will depend on the individuals as well as the type of content.*
- *The number of likes and shares does not reflect reliability – it only confirms how popular the content is, and this can often be skewed by algorithms.*
- *Content labelled as AI generated does not confirm whether it includes mis- or disinformation.*

- Next, share the scenario on slide 16, and explain that Poppy has noticed lots of the stories on social media are biased or seem like they are not real. Ask students to write a response to Poppy explaining why it is important to fact-check, including:
 - the impact of algorithms and bias
 - some strategies Poppy could use to fact-check

Circulate during the activity to check students' understanding.



Support: Give students **Resource 2a: Helping Poppy**, to help structure their response.



Challenge: Explain that a possible consequence of mis- and disinformation is people mistrusting all online information. Ask students to discuss what the impact of this could be.

What's the impact? (Slides 17–18, 15 mins)

Explain that as well as being aware of how generative AI can increase the amount, and spread, of mis- and disinformation, we should also consider what the consequences of this might be. Show slide 17 and ask groups to discuss what the possible impacts of spreading mis- and disinformation could be?

Take feedback. Students might suggest:

It can spread untrue/harmful information; may be used to influence opinions; could lead to people unwittingly using/sharing incorrect information; disinformation can be spread to cause harm; used to promote hate speech or extremist views.

Next, give groups **Resource 3: Mis- and disinformation**, and ask them to write around each example the possible consequences of spreading this mis- and disinformation.

Take feedback, highlighting key learning:

- *Stigma related to health conditions; worsening of medical conditions; reduction in vaccination uptake; not seeking medical help when needed; undermining advice from medical professionals and reducing trust.*
- *People being unfairly influenced in elections; loss of trust and not voting; used as an excuse by politicians to avoid accountability.*
- *Increase in discrimination; divided communities; increase in hate speech or extremist views; reinforcing harmful stereotypes.*

Finally, using slide 18, ask students to write down three top pieces of information about generative AI that would be helpful for people to be aware of, to reduce the impact of mis- and disinformation.

Students may suggest:

awareness of how algorithms work; how generative AI is trained; that AI doesn't think for itself; motivations behind spreading disinformation; how generative AI could be used to make disinformation appear real.



Challenge: Explain that a lot of mis- and disinformation online is related to health and politics. Ask students to discuss possible reasons for this.

Reflection and endpoint assessment

Reflection (Slide 19, 3 mins)

Ask students to reflect on which strategies they will find most useful for fact-checking information online. As this is a personal reflection, they do not need to share their responses with the class.

Endpoint assessment (Slide 20, 5 mins)

Remind students of the learning outcomes and share the fake news story on slide 20. Ask them to answer the questions:

- What clues are there that this story is fake news?
- How has generative AI increased the amount, and spread, of fake stories like this?
- What could someone do if they suspect it is mis- or disinformation?
- What harm could be caused by fake stories like this?

This is an opportunity to check students' understanding and identify any gaps that may need addressing in the following lessons. Review the question box and address any unanswered questions.

Signposting support

Signposting support (Slide 21, 2 mins)

Remind students that if they have concerns about the use of generative AI and mis- and disinformation, it is important they speak to a trusted adult at home or at school (for example the head of year or form tutor). Students can also contact:

- Childline - www.childline.org.uk; 0800 1111

Extension activity

Spotting mis- and disinformation (Slide 22)

Ask students to create a guide for spotting mis- and disinformation. They should include:

- how generative AI increases the amount, and spread, of mis- and disinformation
- strategies that can be used to fact-check online information
- how spreading mis- and disinformation can cause harm