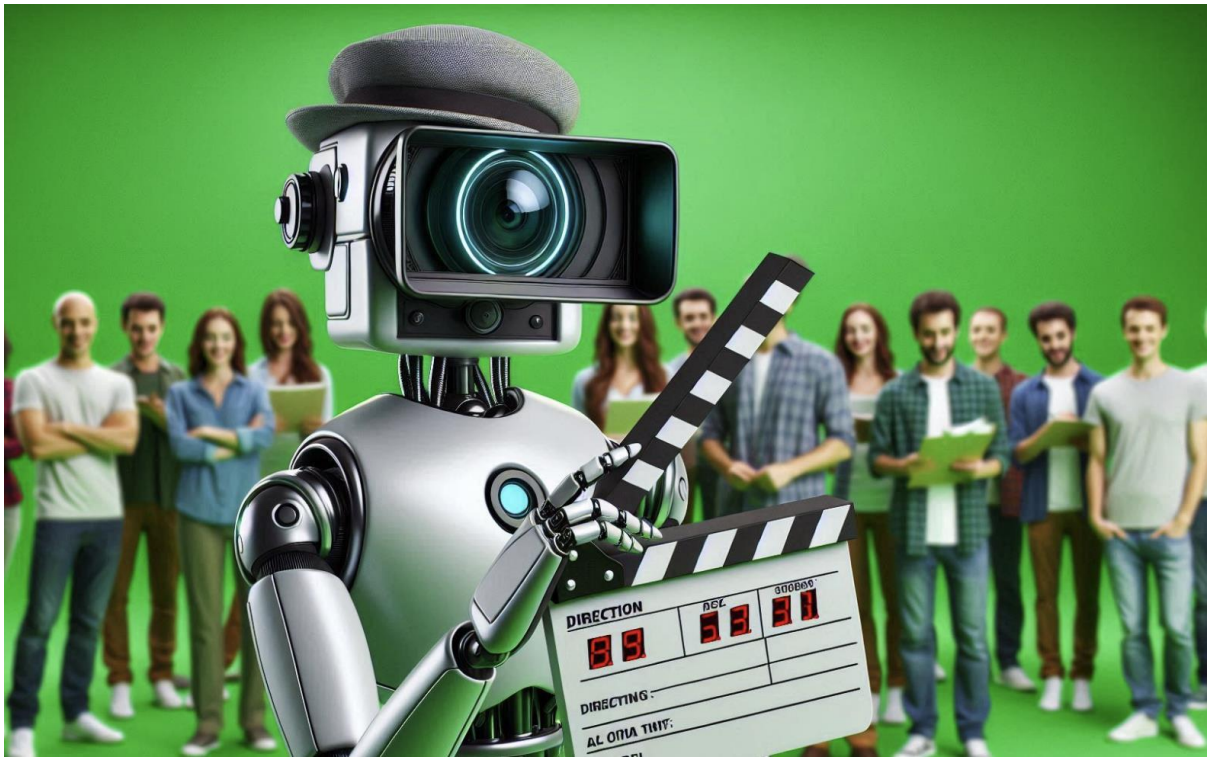
Lesson Plan: Analysing AI-Generated Video Content



Subject: Information Technology, Media Literacy, AI Literacy

Level: Secondary Education (12-15 years old)

Duration: 40 minutes

Curriculum Links: This lesson aligns with the following **Junior Cycle History learning outcomes:**

1.1: Develop a sense of historical empathy by viewing people, issues and events encountered in their study of the past in their historical context. The inclusion of learning outcome 1.1 emphasizes the importance of historical empathy, which is particularly relevant when discussing AI's limitations in understanding and conveying historical context and human experiences.

1.4: Demonstrate awareness of historical concepts, such as source and evidence; fact and opinion; viewpoint and objectivity; cause and consequence; change and continuity; time and space

1.5: Investigate the job of the historian, including how s/he finds and uses evidence to form historical judgements which may be revised and reinterpreted in the light of new evidence (or common sense)

1.6: Debate the usefulness and limitations of different types of primary and secondary sources of historical evidence, such as written, visual, aural, oral and tactile evidence; and appreciate the contribution of archaeology and new technology to historical enquiry

1.7: Develop historical judgements based on evidence about personalities, issues and events in the past, showing awareness of historical significance

2.12: Debate the idea that the 1960s was an important decade on the island of Ireland, referring to relevant personalities, issues and events

3.13: Debate the idea that the 1960s was an important decade in Europe and the wider world, referring to relevant personalities, issues and events

Key Skills:

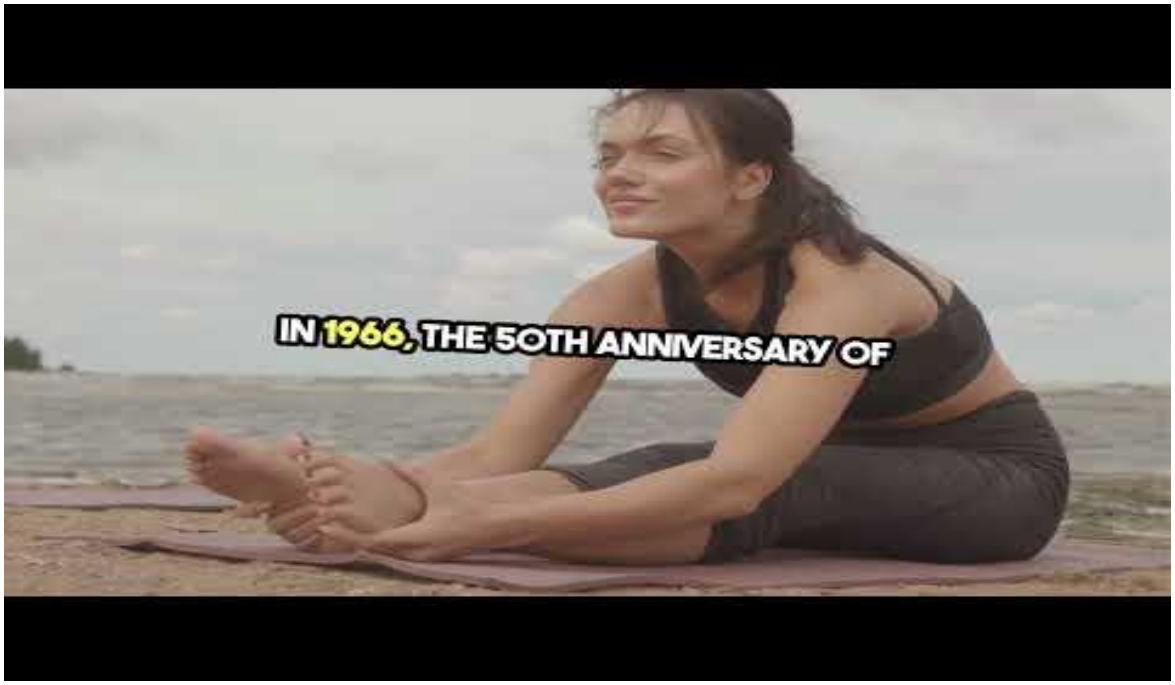
This lesson will help develop the following key skills:

- Managing information and thinking: Students will gather, record, organize and evaluate information about AI-generated historical content.
- Being creative: Students will explore options and alternatives in analysing and critiquing AI-generated historical media.
- Communicating: Students will listen and express their ideas clearly during class discussions about AI-generated historical content.
- Being literate: Students will express ideas clearly and accurately in their worksheet responses and homework assignments.
- Working with others: Students will collaborate in group discussions to analyze the AI-generated video from a historical perspective.

Materials Needed:

- Computer with internet access and projection capability.

- Access to the YouTube video: "When AI videos get it WRONG! A Lesson in Critical Analysis" https://www.youtube.com/watch?v=i0aJ4v2Hptk



- Worksheet for students to record their observations. (see Appendix)

- Whiteboard or digital board for class discussion.

Lesson Structure:

1. Introduction (5 minutes)

- Briefly introduce the concept of AI-generated content and its prevalence in today's digital landscape.

- Explain the objective of the lesson: to critically analyse an AI-generated video for errors and understand the importance of human oversight in AI applications.

2. Video Viewing and Individual Analysis (15 minutes)

- Play the video "When AI videos get it WRONG! A Lesson in Critical Analysis" for the class.

- Instruct students to watch carefully and note down any errors or issues they observe in the following categories:

- Factual inaccuracies

- Irrelevant or mismatched images

- Spelling and grammar mistakes

- Tone and empathy issues

Optional Teacher's Script:

Introducing AI Video Analysis Lesson

Good morning/afternoon, class. Today, we're going to embark on an exciting journey into the world of Artificial Intelligence and content creation. We'll be watching and analyzing a video that was entirely generated by AI. This exercise isn't just about spotting mistakes; it's about understanding the complexities of AI and **the crucial role that human oversight plays in its application.**

As we dive into this lesson, I want you to keep one word in mind: empathy. Empathy is our ability to understand and share the feelings of others. It's a uniquely human trait that allows us to connect with one another, to understand context, and to communicate effectively. As you'll see in our video today, AI can struggle with empathy and nuance, often missing the emotional and contextual cues that we, as humans, naturally pick up on.

Let me give you three examples of what empathy looks like in content creation:

1. Sensitive Topics: Imagine a news report about a natural disaster. An empathetic human reporter would use a somber tone, choose words carefully to respect the victims, and perhaps include information on how viewers can help. They understand the emotional impact of the event on those affected.
2. Cultural Nuances: Consider a travel guide about a foreign country. An empathetic writer would be mindful of cultural differences, avoiding stereotypes and explaining customs respectfully. They'd try to help readers understand and appreciate the culture, not just observe it.
3. Personal Stories: Think about a documentary featuring someone's life story. An empathetic filmmaker would portray the subject's experiences with sensitivity,

allowing their emotions to come through authentically. They'd aim to help the audience connect with the subject on a human level.

As you'll see in our video today, AI can struggle with empathy and nuance, often missing the emotional and contextual cues that we, as humans, naturally pick up on.

Here's what we'll be doing:

1. First, we'll watch a video titled "When AI videos get it WRONG! A Lesson in Critical Analysis". This video was created entirely by AI, without human oversight or editing.

2. As you watch, I want you to put on your detective hats. Look for factual errors, mismatched images, spelling and grammar mistakes, and instances where the AI's lack of empathy or understanding of context becomes apparent.

3. You'll have worksheets to record your observations. Don't just focus on what's wrong – think about why it's wrong and what impact these errors might have on viewers.

4. After watching, you'll discuss your findings in small groups. This is your chance to compare notes and see if you've spotted things others might have missed.

5. Finally, we'll come together as a class to share our observations and discuss the broader implications of what we've seen.

We're exploring how human skills – like empathy, critical thinking, and contextual understanding – remain vital in the age of AI.

Are there any questions before we begin?

_____

Students now watch video multiple times.

3. Small Group Discussion (10 minutes)

- Divide the class into small groups of 3-4 students.

- Have groups compare their individual notes and compile a comprehensive list of errors and issues they identified.

- Encourage groups to discuss why these errors might have occurred and the potential consequences of such mistakes in real-world applications.

4. Class Discussion and Analysis (15 minutes)

- Facilitate a class-wide discussion where each group shares their findings.

- Use the whiteboard to categorize and tally the different types of errors identified.

- Guide the discussion with questions such as:

  - Which errors do you think are most critical? Why?

  - How might these errors impact viewers who are unaware that AI generated the content?

  - What roles do you think humans should play in the AI content creation process?

5. Reflection and Key Takeaways (5 minutes)

- Summarise the key points discussed during the lesson.

- Emphasize the importance of human oversight and critical thinking when interacting with AI-generated content.

- Discuss the potential of AI technology when properly guided by human expertise and ethical considerations.

Homework Assignments:

1. Beginner:

Find an example of AI-generated content online (article, image, or short video) and identify at least three potential issues or errors. Write a short paragraph explaining why these issues are problematic.

2. Intermediate:

Create a guide for critically evaluating AI-generated content. Include at least five key questions one should ask when encountering such content and explain why each question is important.

3. Advanced:

Research a real-world application of AI (e.g., in healthcare, finance, or education) and write a one-page report discussing both the potential benefits and the risks if human oversight is not properly implemented.

Assessment Criteria:

- Active participation in group and class discussions
- Ability to identify and categorize errors in AI-generated content
- Understanding of the importance of human oversight in AI applications
- Critical thinking skills demonstrated in homework assignments

Extension Activities:

1. Organise a debate on the topic: "Should AI-generated content be clearly labelled as such?"
2. Create a class project where students collaborate with an AI tool to create content, then critically review and improve upon the AI's output.
3. Invite a guest speaker working in AI or digital media to discuss real-world applications and challenges of AI technology.

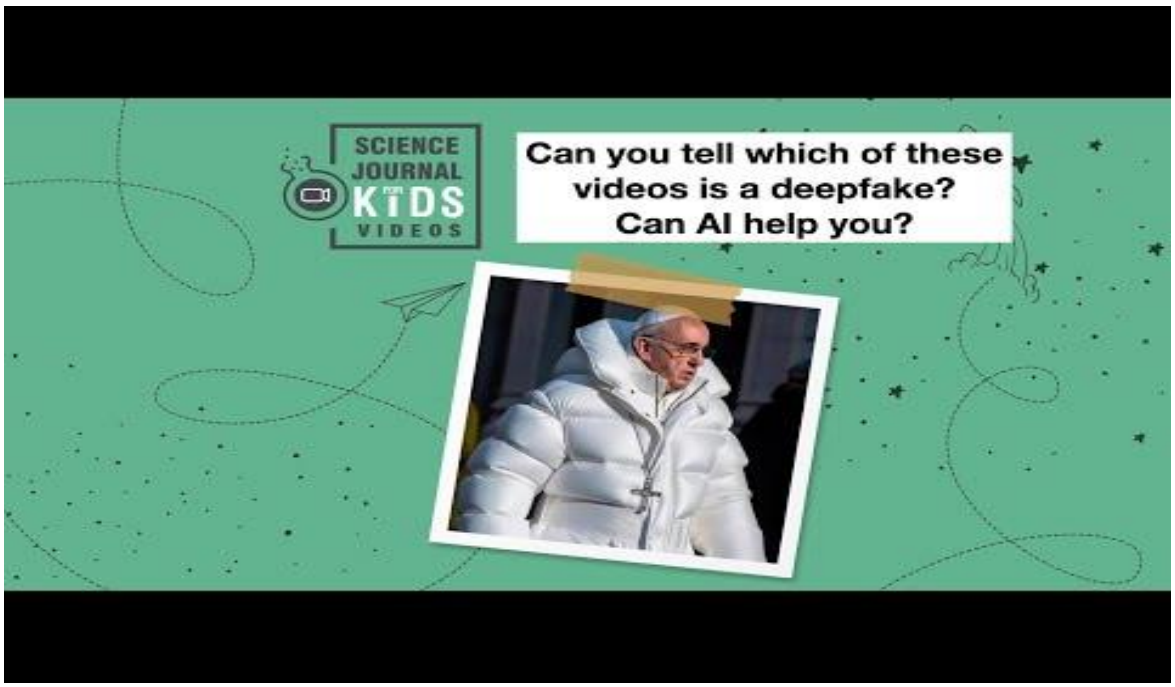
Additional Resources:

- AI Ethics Guidelines

https://www.unesco.org/en/artificial-intelligence/recommendation-ethics

- Spotting Deepfake images / videos

https://www.youtube.com/watch?v=Q031jNTSDAc



Key point: "The good news is, people can sort of detect deepfakes when they're looking; the bad news is we're not looking very often, and deepfakes are only going to get harder to recognise as the technology gets better and better".

Title: "Can you tell which of these videos is a deepfake? Can AI help you?"

Transcript:

"Have you seen this picture of the Pope wearing a stylish puffy jacket? Well, it went viral last year, not because the Pope was looking super cool, but because the photo was generated using AI. We call them deepfakes, and it's not the only content out there generated using AI. Some people make deepfakes for fun—I mean, who doesn't want to see Tom Cruise doing magic tricks? I'm going to show you some magic that's not Tom

Cruise; it's the real thing. However, other people create deepfakes to spread misinformation. That's not the Ukrainian president calling for his citizens to surrender. We're entering an era in which our enemies can make it look like anyone is saying anything at any point in time, and that's a fake Obama, although what he's saying here is true. These are deepfakes, phony videos of real people generated by artificial intelligence software. Now, the question is, can you recognise a deepfake? Try this one on for size: This is a PSA. You can't believe anything you see these days; these glasses aren't even real, neither is my face. What we found was people are around this two-thirds correct kind of range. The next question is, can AI help people recognise deepfakes? It turns out AI is sort of decent at recognising deepfakes on its own, but each of us has our weaknesses. For people, when we're emotional, we can't recognise deepfakes as well. AI, on the other hand, has problems detecting deepfakes when the context is important, like in videos of political figures. AI also does a better job than people at recognising videos when the content is inverted or misaligned, or something's wrong with it; our brains just don't work as well when our visuals aren't clear. **The good news is, people can sort of detect deepfakes when they're looking; the bad news is we're not looking very often, and deepfakes are only going to get harder to recognise as the technology gets better and better.** So, I guess the moral of the story is to keep questioning what you see out there, whether it's actively looking for deepfakes in particular, checking your sources for news, or just thinking critically about what you're watching. We can all help prevent the spread of misinformation. Make sure to check out the paper on how humans and AI can work together to detect deepfakes for more information."

Appendix

Student Worksheet:

Analysing AI-Generated Video Content

Instructions:

Watch the video carefully and record your observations in the sections below. Be as specific as possible, noting timestamps if you can.

1. Factual Errors

List any incorrect information or false statements you notice in the video:

2. Irrelevant or Mismatched Images

Describe instances where the images don't match the content being discussed:

3. Spelling and Grammar Mistakes

Write down any spelling errors or grammatical issues you spot:

4. Tone and Empathy Issues

Note any parts where the tone seems inappropriate or lacks empathy:

5. Other Observations

Record any other issues or strange elements you notice:

Reflection Questions:

1. Which error do you think is the most significant? Why?

2. How might these errors impact viewers who don't know the video was AI-generated?

3. What role do you think humans should play in creating and reviewing AI-generated content?

4. Based on what you've seen, what are the main limitations of AI in content creation?

5. Despite its errors, what potential benefits do you see in using AI for content creation?

Group Discussion Notes:

Use this space to jot down key points from your small group discussion:

Remember, critical thinking is key!

Don't just identify errors but consider their implications and how they could be prevented.