

4565: Computing Foundations for a Digital Age

Unit 2

Day 8 Lesson Plan: Emerging Technologies & Ethical Concerns

Objective

Students will explore how emerging technologies like AI and facial recognition impact privacy, ethics, and digital security.

Word Bytes

- **AI (Artificial Intelligence)** – Computer programs that can learn and make decisions, like recommending videos or recognizing faces.
- **Deepfake** – A fake video or image made with AI that looks very real but isn't.
- **Facial Recognition** – Technology that scans and identifies people by their faces.
- **Data Bias** – When a computer or program makes unfair decisions because the data it learned from was not diverse or accurate.

Materials

- News articles (print or digital)
- Video clips (TED Talks, AI bias demos, or curated playlist)

Activities

Hook: Real or Fake?

- Display two images side by side using [Which Face Is Real?](#) and have students vote on which is the real photo.
- Discuss how AI can convincingly generate fake content and the risks of misinformation.

Mini-Lesson: Understanding Emerging Tech

- Introduce students to AI, deepfakes, and facial recognition with brief explanations and video clips.

Example discussion questions:

- ☐ What do these technologies do well?
- ☐ What concerns might people have about their use?

Video or Article Analysis

- In small groups, students watch a short clip or read an article about AI bias or facial recognition concerns.
- Afterward, they summarize the issue and list at least one ethical or safety concern.

Suggested clips:

[TED Talk on facial recognition and bias](#)

Segment from [Kami's Digital Safety](#)

Mini-Research & Share Out

- Students choose an emerging tech topic (e.g., facial recognition, AI surveillance, predictive policing) and complete a short research activity.
- They share key findings in a 1-minute summary or simple slide.

Research questions:

- ☐ What is the technology?
 - ☐ Where is it used?
 - ☐ What ethical questions does it raise?
 - ☐ What's one thing society should consider before expanding its use?
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Word Bytes Dictionary Update

Students add "**AI**," "**deepfake**," "**facial recognition**," and "**data bias**" to their Word Bytes dictionary with examples.

Suggested examples:

- AI – Recommends songs based on your listening history.
- Deepfake – A fake video of a celebrity saying something they never said.
- Facial Recognition – Unlocking your phone with your face.
- Data Bias – A hiring tool that rejects candidates unfairly because it was trained on biased data.