Topic	*Siri, Can You Hear Me Now?*	**Duration**	90 minutes
Type	Lesson Plan		
CEFR level	B2		

GOALS/PURPOSE/AIMS

- To educate students on the concept of accent bias in AI and its broader implications.
- To analyse how AI technologies, like voice assistants, respond to different accents and identify patterns of discrimination.
- To present research findings on AI and language biases effectively to their peers.
- To ask informed and thoughtful questions about the future development of AI systems and their impact on society.

MATERIALS/RESOURCES USED

- Voice assistants (Siri, Alexa, Google Assistant)
- Text-to-speech feature on teacher's phone/PC to read the article aloud to students (https://nymag.com/intelligencer/2018/08/why-are-google-siri-and-alexa-so-bad-at-understanding-bilingual-accents-voice-assistants.html)
- Internet access for group research on assigned articles:
  1. AI Biased by User Language (https://languagemagazine.com/2025/01/16/ai-biased-by-user-language/)

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2. Why Racial Bias Still Haunts Speech-Recognition AI (https://builtin.com/artificial-intelligence/racial-bias-speech-recognition-systems)
3. Artificial Intelligence's second-language English problem (https://barbaraserra.substack.com/p/artificial-intelligences-second-language)
4. A guide to the different types of AI bias (https://www.zendata.dev/post/a-guide-to-the-different-types-of-ai-bias)

- Video (optional): Video showing people with different English accents testing AI tools. Link: https://www.youtube.com/watch?v=gNxohuL9qsQ
- Expert speaker: An expert in AI, linguistics, or ethics who can discuss the issues in-depth with students

PROCEDURES (STRUCTURE)

1. Warm-up: Pair work (15 minutes):
The teacher splits students into pairs of two and has each pair test a voice assistant (e.g., Siri, Alexa, Google Assistant) by giving a series of commands. Students are asked to first use their native language, then their English accents, and finally play a bit and try to emulate other English accents they are familiar with (e.g., British, American, Southern, or other regional/global accents). Each pair should note the accuracy and response time of the AI for each accent.

Then the teacher prompts a short discussion by asking students:

- *Did you notice any differences in how the AI responded to different accents?*
- *Did the AI perform better with some of your accents? Why do you think that might be?*

- *Can you relate this to any social attitudes towards different accents?*
- *Did you have some experiences with AI before when it could not understand you?*

2. AI reading/students listening (20 minutes):
The teacher uses a text-to-speech feature on their phone/PC and asks students to listen while AI is reading an article on AI accentism: *'Okay Google, Play 'Dura'': Voice Assistants Still Can't Understand Bilingual Users*.

After listening to the article, students are asked to answer the following questions:

- *Did you understand the text read by AI? Does AI always understand you when you talk to it?*
- *What is the main issue the author experiences with voice assistants like Google Home and Siri?*
- *According to the author, how does the pronunciation of Spanish words affect the functioning of voice assistants?*
- *What percentage of the world's population speaks at least two languages, and how does this relate to the issue of accent bias in AI?*
- *What does the "accent gap" study by The Washington Post reveal about voice assistants' ability to understand different accents?*
- *Why does Carolina Barrera-Tobon believe the design of voice assistants reflects a narrow, biased perspective?*
- *What is "broadcast English" and why does it create problems for non-native English speakers using voice assistants?*
- *What role do you think the developers' cultural and linguistic backgrounds play in the design of AI voice assistants?*

- *What does the author suggest is the main cause of accent bias in AI, and how does this connect to social privilege?*
- *How does the difficulty of AI in understanding code-switching contribute to the challenges of bilingual users?*
- *According to Steve Davis, what challenges are involved in teaching AI to understand languages other than English?*
- *What are the potential consequences of not promoting diversity and cultural sensitivity among the workforce developing AI systems?*
- *How does the author suggest the issue of accent bias in AI could be addressed in the future?*
- *In your opinion, how can AI technology improve to be more inclusive of people with various accents and language backgrounds?*

3. Group Activity (25 minutes):
The teacher explains that the topic they discussed relates to *accentism*, or *accent discrimination*, which is present in different domains, such as workplaces, education, politics, and even AI tools - which people often wrongly assume to be unbiased and neutral. The teacher then invites students to learn more about other language biases through a group activity. The teacher divides students into four groups and assigns each group an article. Then all groups read their articles, present them to other classmates, and prepare a couple of questions for their classmates to provoke a discussion.

The articles:

1. *AI Biased by User Language* – Explains that the AI can offer very different answers to the same questions asked in two different languages, especially about sensitive issues (https://languagemagazine.com/2025/01/16/ai-biased-by-user-language/).
2. *Why Racial Bias Still Haunts Speech-Recognition AI* – Explains that speech recognition tools are far less accurate for black speakers than white ones (https://builtin.com/artificial-intelligence/racial-bias-speech-recognition-systems).
3. *Artificial Intelligence's second-language English problem* – Explains how AI consistently misidentifies non-native English human writing as being AI-generated (https://barbaraserra.substack.com/p/artificial-intelligences-second-language).
4. *A Guide To The Different Types of AI Bias* – Explains different kinds of biases in AI (https://www.zendata.dev/post/a-guide-to-the-different-types-of-ai-bias).

4. Guest Speaker/Expert Interview (30 minutes):

The teacher invites an expert in AI, ethics, or linguistics to talk to the class about how AI systems are trained and how they might be affected by bias, including accent bias. This could give students firsthand insight into the challenges that developers face in creating impartial AI systems. Also, as students were equipped with some knowledge of AI biases through the first part of the lesson, they should be able to pose meaningful and thought-provoking questions on the topic. Some of the questions/discussion might revolve around issues, such as:

- *Do companies creating AI have a social responsibility to create unbiased systems? What could be the long-term effects if AI systems continue to favour some accents over others?*

- *Do you think there are limitations in current technology and that it is impossible to eliminate all biases in AI?*
- *Discuss AI bias in education/financial services/healthcare/criminal justice etc.*

5. Homework:
Students should have a discussion on AI bias with three different people outside their classroom, and report on what they noticed in the next class (e.g. are people aware of this issue; were they willing to learn something new about it from a student; do they think it is an important issue; did they have any personal experiences with AI bias etc.).

EXPECTED OUTCOMES

- Increased awareness of accent discrimination.
- Students will understand different types of biases in AI.
- Students will critically evaluate practices and challenges in developing impartial AI tools.
- Students will engage in discussions with other people and improve critical thinking skills.
- Students will be equipped to be involved in activism on accent discrimination.

ASSESSMENT/REFLECTION

Speaking:
- Students participate actively in discussions in a coherent way.
- Students demonstrate the ability to explain read materials in a clear, concise and coherent way.

- Students are able to pose meaningful questions on the topic of language bias in AI.

Reading:

- Students demonstrate comprehension of the reading material by answering reading comprehension questions.
- Students extract relevant information from the text to support their arguments/answers.

Collaborative skills:

- Students work effectively in a group (contribute to the group project, listen and incorporate peers' comments, share responsibilities).