

Chatbots In Education

Advantages & Disadvantages of Chatbots

Advantages

- A key benefit of using chatbots in education is the ability to provide personalised support to students and teachers.
- Chatbots can offer immediate assistance to students who may be struggling with a particular concept or assignment, providing personalised feedback and guidance.
- 24/7 Availability: Chatbots are accessible 24/7, which means that students and teachers can get support whenever they need it, as well as outside of regular school hours.
- Reduced Workload: By automating certain tasks, such as grading and feedback, chatbots can help reduce the workload for teachers by making them to focus on other important tasks like lesson planning and student engagement.

Disadvantages

- Chatbots cannot replace the human interaction, which is crucial in education. Students and teachers need to be able to communicate with each other and build strong relationships, which is difficult to do with a robot.
- 2-Limited Understanding: Chatbots are only as good as the data that is fed into them. They may not be able to understand the nuances of a particular task or communication in the same way that a human teacher can.
- Potential for Bias: Chatbots are only as good as the data that is fed into them. If the data is biased, then the chatbot may also be biased, which could have serious implications for student learning and success.

Source: Secondary Data Source | Oracle, Jr. M. Ed. | Published Jul 6th, 2023
Retrieved from: <https://www.oracle.com/au/chatbots/what-is-a-chatbot/>

Popularity of Chatbots



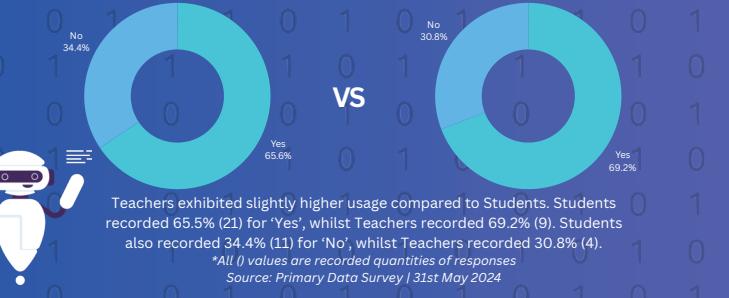
Students displayed greater variety in the chatbots used compared to teachers. Student's utilised all chatbot sources as opposed to teachers, which only used ChatGPT and Perplexity.

Overall, ChatGPT remains the most popular chatbot used by both parties, with students displaying 66.67% (24) usage and teachers with 90.00% (9).

*All () values are recorded quantities of responses

Source: Primary Data Survey | 31st May 2024

Student Chatbot Frequency Teacher Chatbot Frequency



Teachers exhibited slightly higher usage compared to Students. Students recorded 65.5% (21) for 'Yes', whilst Teachers recorded 69.2% (9). Students also recorded 34.4% (11) for 'No', whilst Teachers recorded 30.8% (4).

*All () values are recorded quantities of responses

Source: Primary Data Survey | 31st May 2024

Source: Secondary Data | Oracle, (n.d.)
Retrieved from: <https://www.oracle.com/au/chatbots/what-is-a-chatbot/>

VS

Chatbot Definition

A chatbot is a computer program that simulates and processes human conversation (either written or spoken), allowing humans to interact with digital devices as if they were communicating with a real person.

Source: Secondary Data | Oracle, (n.d.)

Retrieved from: <https://www.oracle.com/au/chatbots/what-is-a-chatbot/>

Research Question & Introduction:

Artificial intelligence is cutting-edge technology that is consistently progressing. How does the integration of virtual assistants in academic environments affect student's overall learning competence and integrity?

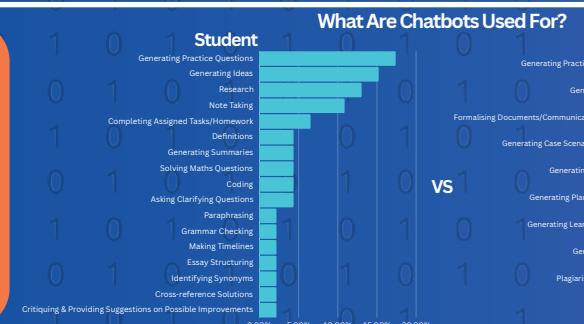
This infographic was created to visually display and educate viewers on chatbot usage within schools, as it is a significantly relevant topic to today's educational environment.

START HERE



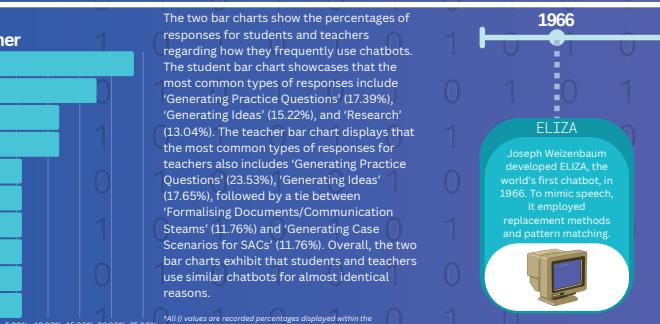
Fun Fact

According to the survey results, only 6.52% of students use chatbots to complete assigned tasks/homework set by teachers!



What Are Chatbots Used For?

VS



Dangers of Plagiarism Detection AI

1. Encouraging Academic Dishonesty: With Plagiarism Detection AI, students have a simple and practical way to get around plagiarism detection software and claim the work as their own, ultimately undermining the core principles of academic integrity.

2. Diminishing learning opportunities: Students lose out on opportunities to learn/develop their critical thinking, research skills, and effective writing when they rely too heavily on plagiarism detectors. This may cause students to not participate completely in the learning process or not get an accurate understanding of the taught material.

3. Raising intellectual property concerns: AI tools that alter plagiarism give rise to concerns about intellectual property rights being violated. These programmes run the danger of unintentionally producing work that violates copyright or plagiarism, as well as creating new versions of already published information.

Source: Secondary Data | (Annie Checkelli | Published April 8th, 2024)
Retrieved from: <https://www.turnitin.com/blog/what-is-academic-integrity-definition>

Fun Fact

After 1 year of Turnitin (a Plagiarism Detection AI) being released:
Over 22 million (approximately 11% of over 200 million uses) have at least 20% AI writing present
Over 6 million (approximately 3% of over 200 million uses) have at least 60% AI writing present

Source: Secondary Data Source | (Annie Checkelli | Published April 8th, 2024)
Retrieved from: <https://www.turnitin.com/blog/turnitin-celebrates-one-year-for-our-plagiarism-detector>

Source: Secondary Data | (Jack Caulfield | May 1st, 2023)
Retrieved from: <https://www.scribbr.com/ai-tools/how-do-ai-detectors-work/>

Has providing critical and effective feedback to students' plagiarised work been difficult?

The graph shows that 50% of teachers find it difficult to provide critical and effective feedback to students' plagiarised work, while 41% find it easy. The remaining 8.8% are unsure.

According to half of the "No" responses, if the work seemed to be plagiarised, they would submit it through the "Authentication Process" instead of offering any input at all. The teacher decides whether or not the work is authentic to the student after having a verbal discussion with them, as part of the process.

Source: Secondary Data Survey | 31st May 2024

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