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AI in Academia: An Annotated Bibliography

Elgersma, Christine. "ChatGPT and Beyond: How to Handle AI in Schools." *Common Sense Education*, 14 Feb. 2023, www.common sense.org/education/articles/chatgpt-and-beyond-how-to-handle-ai-in-schools.

In an article titled *ChatGPT and Beyond: How to Handle AI in Schools*, Senior Editor Christine Elgersma offers advice to educators on how they can navigate through this advanced technology. Elgersma expresses that "we interact with AI every day we're online." This is especially prominent in the school system, where many of the learning resources are now provided through technology. With that there are challenges that spark worry amongst instructors: plagiarism, ethics, biases, and misinformation as outlined by the author. These possible issues are expanded upon as Elgersma shares many ideas on how to handle them.

Furthermore, Elgersma highlights the possibilities that this development of technology may provide. As AI continues to improve, it has the potential to impact education, as well as everyday life, in both positive and negative ways (Elgersma). The author speculates that the advancement of AI will alter the job market altogether. Elgersma asserts that this could lead educators to face even more hurdles when she states, "Preparing students for a world we can't quite even imagine is a true challenge."

On the other hand, just as students may begin to use AI as a tool, educators can as well. Christine Elgersma lists ways that teachers can use AI to help give them "some of what so many teachers deeply need but never have enough of (other than money) - TIME?!?" Rather than

fearing students using AI to do their homework, teachers can make AI a part of the lesson. Elgersma sees the growth of artificial intelligence as unavoidable and encourages educators to find creative ways to begin integrating it into their classrooms. If the educational system is not fearful of AI, then perhaps the issues surrounding it can be avoided.

The author of *ChatGPT and Beyond: How to Handle AI in Schools*, has experience as a teacher to diverse groups of students. Additionally, she has played a role in designing “an ELA curriculum for a K-12 app.” These qualities explain why she can be understanding of other educators and their experiences, as well as have an openness to advancing technology. This article can be used to show the perspective of an educator who is able to positively view AI. In my essay, I would use this article to share that perspective to contrast the more negative perspectives given by other educators. This is a source from this year, so it is about as current as a article on the everchanging AI can be. Given her experience and her title as Senior Editor, I trust her as an authoritative source.

Hsu, Jeremy, and Matthew Sparkes. “An Intellectual Leap.” *New Scientist*, vol. 258, no. 3435, Apr. 2023, pp. 12–16. EBSCOhost, [https://doi.org/10.1016/s0262-4079\(23\)00696-6](https://doi.org/10.1016/s0262-4079(23)00696-6).

In an article titled “An Intellectual Leap,” authors Jeremy Hsu and Matthew Sparkes explore the recent advancements in artificial intelligence and the “boom” it inspired. The article explores a great variety of areas of life that are impacted by AI. With the launch of ChatGPT which “attracted 1 million users in just five days,” many companies have begun launching their own chatbots with incredibly advanced powering technology (12). The expansion of artificial intelligence has been fueled by millions of dollars across many businesses, to create the highest functioning tool they can.

Focusing on the more academia-based impacts of AI in recent times, the generative AI, ChatGPT, is being banned in schools because students are using it to complete their homework assignments for them (13). As stated by the authors, this is because “it can generate entire essays that often appear indistinguishable from student writing.” With that, the authors also speak on the use of AI in many people’s jobs (14). This poses the question of whether individuals will even need to learn how to do a lot of the work required for a college degree as AI will be able to generate that work for them in a matter of seconds both in and out of college.

Companies are working hard in competition to create the highest functioning AI that they can. In the article, the authors state that the creators of ChatGPT claim their “mission statement says the firm is dedicated to spreading the benefits of artificial general intelligence – AIs that can outperform humans at every intellectual task” (15). Though this is a goal that has not quite been reached, it does show that AI is being improved in hopes of being more than an equal to humans in intelligence.

This article shares a great deal of information on the actual progression that AI has made recently, and where companies hope it will project to be in the future. This article works perfectly for aiding me in answering the question of where AI will be in the next 20 years. Which is to say, AI will certainly be progressively integrated into education, but whilst still maintaining the in-person aspect of a teacher present. Additionally, I would like to include the mission statement made by ChatGPT owners and what that could mean for the future of AI. If there are artificially intelligent bots such as ChatGPT, how much higher education will people actually need to go through in order to secure a good job. Or will those jobs be obsolete due to AI being able to do them for us, and therefore less of a pull for people to pursue further education. This is a reputable source because I pulled it from the curated database. The authors are science and technology based journalists who have published many works.

Hulick, Kathryn. "How ChatGPT and Similar AI Will Disrupt Education." *Science News*, 12 Apr. 2023, www.sciencenews.org/article/chatgpt-ai-artificial-intelligence-education-cheating-accuracy.

In an article written by Kathryn Hulick, a negative viewpoint is presented on AI in academics. In the article, Hulick sources a pole that was conducted at Stanford University where 17% of students admitted that they used AI generated writing and claimed it as their own. This is a pretty significant pole, as that is only the percentage of students who were willing to admit to using AI to do their assignments. Furthermore, the author presents the idea that it is not technically plagiarism to use chatbot material, as it is new and originally generated every time (Hulick, 1). According to the article, some view ChatGPT as a helpful tool for people who are working in a second language, or just want to improve their homework (Hulick). In this sense, it appears that AI can be a way to improve work that was already constructed by the student.

In the article, it is also mentioned that ChatGPT is not always an accurate source. The chatbot was designed to create new material, which can result in the creation of new, and false, information as well. In one example, the chatbot was asked to reference sources. Rather than pulling real sources from the internet, it generated fake sources that were made to appear real. ChatGPT is not designed to have ideas or thoughts (Hulick). However, with the amount of money being invested into AI, there is a chance that it will advance to be able to do just that. This is a point that is brought up in some of my other sources which I may build upon.

Science news is a long established newspaper that provides independent journalism. This is a reputable source because they are published by a nonprofit organization. I am a little skeptical about how reputable this author is. The main point I want to use for my paper is the referenced pole from Stanford University. This source is great for presenting the more negative perspectives of AI as well as the limitations/impacts it may continue to have in the future. In my paper, I hope

to use this to express some of the limitations that AI currently has for being used as an educational tool as well as a method for doing homework. Additionally, I may build off the use of AI as a tool for enhancing the writing of students as part of the pros of what AI can continue to do for students in the future.

Shonubi, Olufemi. “AI In the Classroom: Pros, Cons and the Role of EdTech Companies.”

***Forbes*, 21 Feb. 2023, www.forbes.com/sites/theyec/2023/02/21/ai-in-the-classroom-pros-cons-and-the-role-of-edtech-companies/?sh=5ef832f2feb4.**

Author Shonubi Olufemi writes about AI in an article titled, *AI In the Classroom: Pros, Cons and the Role of EdTech Companies*. In the introduction of this article, the author expresses that AI can be implemented in education and states, “AI can provide students with personalized learning experiences, automate repetitive tasks and provide instant feedback.” These outline some of the advantages that artificial intelligence can provide in the classroom. The article also lists a few AI tools that are already being used in classrooms to assist teachers with educating their students.

Along with the advantages of AI are some disadvantages. As with any other technology, AI is expensive. Not every school may have the resources to provide it. Another point the author brings up is the “lack of human interaction and emotional support that students receive when using AI-powered educational tools” (Shonubi). Students need human interaction and the emotional connection that teachers provide when educating. With the advancement of AI, there is a fear that some will begin to see teachers as unnecessary (Shonubi). In the future, I imagine AI will be implemented as a tool and hopefully not a replacement for educators.

In this article, some pros and cons of AI are outlined. These are important components to include in my paper, as without an understanding of what AI can and cannot provide, then I cannot postulate where AI will be in the future of education. The author is a co-founder of

Edutech Global, a company which plays a part in cultivating AI for use specifically in education. This shows that the author does have an authoritative perspective on the subject of my paper. Forbes is a well known reputable business magazine, so I trust their works to use as strong evidence.

Zhu, Jianjian, and Chuming Ren. “Analysis of the Effect of Artificial Intelligence on Role Cognition in the Education System.” *Occupational Therapy International*, May 2022, pp. 1–11. EBSCOhost, <https://doi.org/10.1155/2022/1781662>.

In this article, authors Jianjian Zhu and Chuming Ren conduct a survey which investigates the impact of artificial intelligence on role cognition in the education system in Central China. These authors share the opinion that AI can be used to enhance the processes of teaching and learning. The primary goal of the survey was to isolate the core aspect of AI that can improve education (1). This shows the implementation of AI that is occurring in education systems globally, and how it may continue to be used to positively impact education.

With the integration of artificial intelligence, the traditional methods for education are continuously requiring altering. Both teachers and students are adapting to assimilate AI and create a new relationship with the manner in which learning takes place (2). The article points out the limitations that teachers face when educating their students. These limitations are expressed as ones that AI might be able to excel in. However, teachers are still necessary as they create the connection between AI and the education of students. Teachers can “flexibly monitor and adjust” (2). Additionally, the authors point out that students benefit from actively engaging in order to accumulate knowledge and the ability to think for themselves. They express that AI can aid in adhering to the diverse methods in which people learn by stating, “Under the guidance of teachers and assistance of AI, they need to acquire knowledge, participate in practice, and

improve their innovation capabilities through human-machine collaboration methods to achieve personalized learning” (2).

This source specifically focuses on how artificial intelligence impacts learning. With the increased use of AI everywhere, it is unavoidable as a future source in the classroom. With the topic of my paper focusing on where AI will be in regard to education in the future, this source provides authoritative information and perspectives on that. A part of this article that I will include is that it refers to teachers as the “connectors” between AI and learning. Human interaction is a crucial part of education, which I hope will not be forgotten with the advancement of technology. I pulled this peer-reviewed journal article from the curated database, so I trust it to be a reputable source.