



Augmented Intelligence

How Large Language Models Could
Level the Playing Field for Individuals
with Learning Disabilities




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Individuals with learning disabilities often face significant challenges that make it difficult for them to reach their full potential. These challenges can be caused by a range of factors, including genetics, trauma, or socioeconomic status. In marginalized areas, such as Gaza refugee camps, sociopolitical determinants like the Israeli occupation have had a significant impact on the learning outcomes of children living there. The prolonged violence, displacement, and trauma experienced by Palestinian children have negatively affected their ability to learn and succeed academically. Children in the West Bank and Gaza have experienced school closures, destruction of school buildings, and limited access to educational resources due to the ongoing Israeli occupation. In addition, the conflict has created economic instability and poverty, which can also impede access to education and hinder academic performance. The combination of these factors has led to lower literacy rates, higher dropout rates, and a decrease in opportunities for children in the region.

However, initiatives such as the use of large language models like ChatGPT can provide innovative solutions to support the learning outcomes of children in Palestine and the region. The concept of augmented intelligence refers to the use of technology to enhance

human cognitive abilities. In the context of large language models, augmented intelligence means that individuals who face challenges due to genetic, environmental, or socioeconomic factors can use ChatGPT to augment their own cognitive abilities. For example, individuals with dyslexia, who may struggle with reading and writing, can use ChatGPT to dictate their thoughts and ideas, making it easier for them to communicate effectively.



Similarly, individuals with autism or other neurodivergent conditions may struggle with social interactions, making it difficult for them to communicate effectively with others. By using ChatGPT as a communication tool, these individuals can overcome some of the challenges associated with social interactions, allowing them to participate more fully in society. Language models like ChatGPT can also provide support for individuals with learning disabilities or other cognitive challenges. By using ChatGPT to assist with reading comprehension, spelling, and grammar, these individuals can improve their writing skills and communicate more effectively.

The Palestine Data Science Forum's inaugural conference, which will gather researchers in artificial intelligence (AI) and data science from Palestine and the diaspora, will introduce a project that aims to promote statistics and AI literacy in the Palestinian context. One of the conference themes will focus on innovative ways to leverage large language models like ChatGPT to enhance learning outcomes for children residing in marginalized

areas, such as Gaza refugee camps. The project seeks to promote the use of AI and statistics as a public good in Palestine.

While the use of large language models to provide augmented intelligence may seem like an obvious solution, it raises a number of ethical considerations. One of the most significant concerns is the potential for these technologies to exacerbate existing inequalities. For example, individuals who cannot afford access to these technologies may be left behind, creating a new class of digital have-nots.

Another concern is the potential for large language models to replace human interaction altogether. While these technologies can provide valuable support for individuals who face cognitive challenges, they should not be seen as a substitute for human interaction. We must continue to prioritize human interaction and recognize its importance in building relationships and fostering empathy.

In conclusion, large language models, such as ChatGPT, have the potential to level the playing field for individuals who face cognitive challenges due to genetic factors. By providing augmented intelligence, these technologies can help individuals communicate more effectively and participate more fully in society. However, we must also be mindful of the ethical considerations that arise from the use of these technologies and work to ensure that they do not exacerbate existing inequalities or replace human interaction altogether.

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