SHORT PAPER

# Collaborative Learning & Collective Sensemaking on Generative AI & Its Impacts on Adult Learning

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**ABSTRACT**

This paper details our reflections on experiencing collaborative learning and collective sensemaking through a discussion-focused event aimed at exploring generative artificial intelligence (AI) and its impacts on adult learning. As generative AI becomes increasingly relevant in educational contexts, adult learning practitioners must effectively navigate the challenges and opportunities presented by these technologies. Through a facilitated discussion session with graduate students studying adult learning, we explored many of the impacts and viewpoints of generative AI, in relation to adult learning. In this paper, we provide a brief overview of adult learning and generative AI and offer a reflection on our experience facilitating an event with graduate students and faculty in an adult learning graduate program.

**KEYWORDS**

generative AI, change management, adult learning, technology adoption

## 1 INTRODUCTION

Like many fields, the field of adult learning has been influenced by technological advances in many ways including improved effectiveness, customization, and learning outcomes. As technology continues to evolve at an unprecedented pace, adult learning practitioners must adapt and embrace new methods to enhance educational experiences. Generative artificial intelligence (AI), possessing the capability to generate human-like text, images, and other forms of content, has the potential to significantly transform the field of adult learning. In recent months, the surge in popularity of tools like OpenAI's ChatGPT has showcased their capacity to aid learners in enhancing their performance, refining their writing, and clarifying complex concepts. In this reflection paper, we present insights from a facilitated discussion session with graduate students studying adult learning.

Our goal in facilitating this session was to provide a space for collective processing on the recent advancements in generative AI and their impact on the field of adult learning. By exploring the perspectives of these future practitioners and researchers,

we aim to offer some insight to consider in the ongoing dialogue surrounding the integration of generative AI into adult learning environments.

## 2 BACKGROUND

Adult learning is the study and practice of how adults learn. The foundational principles of adult learning include andragogy, a theory emphasizing the importance of self-direction, drawing from past experiences, relevance to real-life situations, and a problem-solving approach [1]. Another influential theory underpinning adult learning is transformative learning (TL) theory, which emphasizes critically reflection on past assumptions, beliefs, and ways of being to in the end transform their beliefs, attitudes, and perspectives. According to Jack Mezirow [2], TL stems from a disorienting dilemma that then goes through steps of critically evaluating one's assumptions, creating new mental models, testing out new ways of being in the world, and lastly reintegrating into the world with new mental model and ways of being. Indeed, the rapid expansion of these tools may qualify as a disorienting dilemma to some. As practitioners of adult learning, we saw a group exploration of generative AI as an intervention in line with these influential theories.

## 3 OVERVIEW OF GENERATIVE AI

Generative AI is a subset of AI that focuses on creating content resembling human-generated output. This technology utilizes machine learning algorithms, specifically deep learning neural networks, to understand patterns and relationships within data sets, enabling the AI to generate new content based on its understanding. As Castelli and Manzoni [3] write, "In recent years, AI has been used to generate a significant amount of high-quality data, such as images, music, and videos." For the proponents of generative AI, these developments represent a groundbreaking advancement akin to the impact of the World Wide Web on business, technology, and telecommunications. Nonetheless, as with any substantial transformation, many people are skeptical or apprehensive regarding the swift proliferation of such tools. With this in mind, we set out to organize an event for students and faculty at our institution to collaborate and learn about these tools.

## 4 EVENT OVERVIEW AND RATIONALE

The use of AI in adult learning is not a new concept, but recent advancements in ChatGPT have generated significant interest in these tools. In educational settings, instructors are increasingly open to discussing and even encouraging the use of AI for themselves and their students. The potential benefits of these tools are exciting; however, there are also concerns about equitable implementation and training data. Furthermore, there is a risk of misuse by bad actors. As technology continues to advance, it is important to consider the trade-offs and ensure that the benefits are distributed evenly.

To further examine both the prospects and the challenges of advancements in generative AI, we organized a virtual discussion for faculty and student in the Adult Learning program at a graduate education institution. The hour-long session began with a brief overview of the context and definitions related to AI in adult learning,

followed by an open discussion and reflection on the implications and takeaways. The planning committee, consisting of three doctoral students in the adult learning program, consulted with faculty members and experts in the field to prepare for the event. A total of 13 students and faculty members attended the session.

## 5 REFLECTIONS FROM THE DISCUSSION SESSION

The discussion on AI in adult learning was largely positive and optimistic, with considerable attention paid to critical thinking and the need for active involvement in the development of these tools. The first section began with an introduction to generative AI and the rapid pace of advancements. Examples of AI-generated poetry and music were used to showcase the technology's capabilities. Participants were asked to reflect on questions such as why Chat GPT has captured so much attention, what excites them about generative AI, and what assumptions its supporters and critics might hold. While some attendees initially hesitated to take a hard stance on the net value of these tools, there was a shared desire to use them ethically and responsibly. The ethical considerations of bias, new literacies, and misinformation were discussed in depth.

In the second section, the facilitator presented different perspectives on generative AI from influential thinkers. The group discussed the implications of AI in their field of practice, the need to adapt to challenges, and how to best utilize the technology. One participant expressed skepticism towards AI but emphasized the importance of human connection, saying that it is best that we focus on what our uniquely human strengths are and resist competing with AI. Overall, students expressed a combination of "possibility thinking" and "critical thinking" toward AI. They acknowledged the potential benefits but also recognized the need to address ethical concerns and adapt to changes in the field.

This event highlighted the power of collective meaning-making and discussion in building deeper relationships and understanding within the field of adult learning. As Brookfield & Preskill [4] argue, using discussion as a learning technique can enable participants to develop a more informed and critical understanding of the topics being discussed. These discussions promote self-awareness and the ability to self-critique while fostering an appreciation for diverse opinions and serve as a catalyst for informed action in the world. As organizations face uncertainties and transformations, group discussions and meaning-making sessions such as this offer a starting point for navigating these challenges.

## 6 CONCLUSION

To summarize, the discussion on AI in adult learning was a productive and informative event that allowed us to deepen our understanding of the potential benefits and ethical concerns of using AI tools in educational settings. Our discussion emphasized the need for critical thinking and active involvement in the development of these tools, as well as the importance of addressing ethical concerns such as bias and misinformation. Participants expressed a combination of excitement and skepticism towards AI, acknowledging its potential benefits while recognizing the need to adapt and address challenges.

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While the widespread adoption of AI in the field of adult learning may face challenges, we believe that the field of adult learning is well-positioned to empower learners to be agents of change and navigate the transformations brought on by technological advancements. By identifying critical challenges and collectively finding solutions, we can work towards a more informed and equitable use of AI tools and take a greater role in the impact they will have on our field.

## 7 REFERENCES

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## 8 AUTHORS

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