

# Chapter 2

## Navigating Challenges and Seizing Opportunities in AI- Driven Assessment: Insights From ChatGPT

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### ABSTRACT

*The integration of Artificial Intelligence (AI) into education is transforming traditional approaches to teaching, learning, and assessment. This chapter explores the evolving landscape of AI-driven assessment, with a particular focus on ChatGPT, a generative AI language model developed by OpenAI, and its growing role in educational settings. Unlike conventional tools, ChatGPT enables dynamic, interactive engagement, supporting both students and educators in tasks ranging from essay writing to instructional design. The chapter critically examines how such tools challenge conventional assessment paradigms while offering new opportunities for personalized, scalable, and formative evaluation. It also addresses key concerns related to academic integrity, ethical use, and algorithmic bias.*

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## INTRODUCTION

AI use in education is bringing about a major change in how knowledge is shared, obtained, and examined. Moreover, AI in education has resulted in the creation of helpful tools that make learning better, make lessons personal, and ease the process of assessment (Kamalov et al., 2023; Vieriu & Petrea, 2025). Out of these, AI-based assessment has attracted a lot of attention because it can make evaluation quicker, customized to each learner, and broad in scope. Since educational institutions face challenges brought by new kinds of learners and technology, AI can help them transform the way teaching is done (Ahmad et al., 2025; Alamäki et al., 2024; Ali et al., 2024; Hopfenbeck et al., 2023; Kamalov et al., 2023; Owan et al., 2023).

The lead in this transformation can be seen with ChatGPT, by OpenAI, which allows learners and educators to use AI functions. LLMs such as ChatGPT help learning stand out from usual educational tools because they respond to users, hold conversations, and assist in various creative and critical activities. Ever since ChatGPT was made public, it has been frequently used by students in academic work to prepare essays, work on math, and think through tough subjects, and also by teachers as a tool for helping students, creating course content, and scheduling educational activities (Adeshola & Adepoju, 2023; Albadarin et al., 2024; Elbanna & Armstrong, 2024; Michel-Villarreal et al., 2023; Monib et al., 2024).

Since AI now has the power to create advanced academic content, how can we make certain assessments are genuine? Can ChatGPT open up new chances for thinking about formative assessment, self-evaluation, and giving students more responsibility? Which protections are necessary to handle issues of academic integrity, bias in algorithms, and ethical use? It is the aim of this chapter to carefully explore the obstacles and benefits related to AI-based assessments, paying special attention to what is learned from using ChatGPT in education. It gives an overview of using AI tools to assess students, explains how generative AI is changing this field, discusses the benefits for teaching practices and universities, outlines possible risks and questions of ethics and lists recommendations for everyone who would use ChatGPT for assessment. Placing ChatGPT together with the methods it is used in learning, this chapter shows how AI is impacting assessment now and what is required for these changes to follow the principles of equity, transparency, and real learning.

## TRADITIONAL ASSESSMENT

With traditional assessment, students are evaluated using standard test questions, exercises, and commands given by teachers. Testing these assessments has formed the main basis of past educational evaluation, choosing to focus more on end-of-

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