

EVOLVING PRESENTATION DYNAMICS: THE SYNERGY OF POWERPOINT AND AI-POWERED TOOLS

*Sharifah Sarimah Syed Abdullah¹, Fuziatul Norsyiha Ahmad Shukri², Mawardi Omar³ and
Norshuhada Samsudin⁴
*sh.sarimah@uitm.edu.my¹, fuziatul@uitm.edu.my², mawardio@uitm.edu.my³,
norsh111@uitm.edu.my⁴

^{1,2,3,4}Jabatan Sains Komputer & Matematik (JSKM),
Universiti Teknologi MARA Cawangan Pulau Pinang, Malaysia

*Corresponding author

ABSTRACT

PowerPoint remains the leading presentation tool due to its integration with Microsoft Office, extensive features, and user-friendly interface, despite competition from Google Slides and Prezi. The rise of AI in higher education and other fields has introduced AI-powered presentation tools that enhance productivity, creativity, and customization through automation of tasks like design layout and data visualization. These AI tools offer advanced features such as smart templates and real-time content generation, which improve audience engagement and simplify complex data. The future will likely see a hybrid approach combining traditional tools like PowerPoint with AI technologies, offering a comprehensive toolset for creating impactful presentations. The integration of AI tools with PowerPoint can streamline workflows, enhance design capabilities, and provide tailored content, catering to diverse user needs and preferences.

Keywords: PowerPoint, Artificial Intelligence, higher education, presentation, features

Introduction

The presentation production environment is dominated by PowerPoint because of its widespread use, smooth integration with Microsoft Office, vast feature set, adaptability, device compatibility, frequent improvements, ease of use, collaborative capabilities, and substantial market dominance. It is still a top choice because of its established reputation and large user base, even in the face of competition from Google Slides and Prezi. Nowadays, the use of artificial intelligence (AI) in higher education (HE) has increased dramatically over the last five years (Chu et al., 2022), as has the availability of new AI technologies. Researchers (Crompton et al., 2021) have investigated the benefits of artificial intelligence for both educators and students in higher education. Advantages of using technology in education include tailoring instruction to meet varied student requirements (Verdú et al., 2017). These papers provide insight into how educators might effectively use artificial intelligence in higher education.

AI powered presentation tools are emerging as significant players in the presentation creation landscape due to their ability to enhance productivity, creativity, and customization. These tools leverage AI to automate tasks such as design layout, content suggestions, and data visualization. Therefore, AI powered presentation tools are transforming the way presentations are generated by providing intelligent automation, increased design capabilities, and tailored content, making them

attractive additions to the traditional presentation software ecosystem. The future presentations will most likely involve a combination of existing tools, such as PowerPoint, and upcoming AI powered technologies. AI solutions provide automation, efficiency, sophisticated functionality, and personalization, yet PowerPoint remains prominent because of its long history, extensive capabilities, integration with other Microsoft Office applications, and vast user base. A hybrid approach could evolve, with AI improving PowerPoint's skills. Ultimately, both sorts of tools will coexist, catering to a variety of user needs and preferences.

Revolution presentation between AI tools and PowerPoint

PowerPoint's widespread use, seamless integration with Microsoft Office, versatile features, and user-friendly interface makes it a dominant tool in presentation creation. Traditional methods are often time-consuming due to manual design, limited templates, and lengthy revisions, highlighting the need for more efficient tools. They also struggle with audience engagement and effective storytelling, emphasizing the need for dynamic and interactive approaches. Additionally, traditional methods lack advanced data visualization tools, underscoring the need for tools that enhance clarity and interactivity in presentations.

According to Górriz et al. (2020), AI is now widely used to improve and advance various aspects of modern life. AI is becoming increasingly popular in higher education, which is significantly influenced by technology improvements (Alajmi et al., 2020). AI is utilized in various fields, including language education (Liang et al., 2021), engineering education (Shukla et al., 2019), mathematics education (Hwang & Tu, 2021), and medical education (Winkler-Schwartz et al., 2019).

AI presentation tools streamline and enhance presentations with advanced features such as smart templates, auto-design, real-time content generation, and slide suggestions. They support real-time collaboration, personalize content, and provide data-driven insights. With capabilities like dynamic visualizations, interactive elements, personalized storytelling, and adaptive presentations, these tools simplify complex data, forecast trends, and improve audience engagement and understanding. Overall, AI tools boost productivity, creativity, and presentation effectiveness, making them essential for modern presentations. The comparison between AI tools and PowerPoint in the different aspects is displayed in Table 1 below.

Table 1: The comparison between AI tools and PowerPoint

Aspect	AI tools	PowerPoint	Combined Strengths
Collaboration	Enhances with design automation, data analysis, and interactive elements	Provides a user-friendly interface and extensive features	Improved productivity, creativity, and audience engagement
Strengths	Innovation in automation and data-driven insights	Familiar and user-friendly, with robust features	A comprehensive toolset for creating impactful presentations
Synergy	Automates and personalizes content creation	Extensive customization and template options	Streamlined presentation creation with advanced functionalities
Future Outlook	Continues to evolve with advanced AI capabilities	Ongoing updates and integration with Microsoft Office Suite	Enhanced tools and capabilities for modern, dynamic presentations

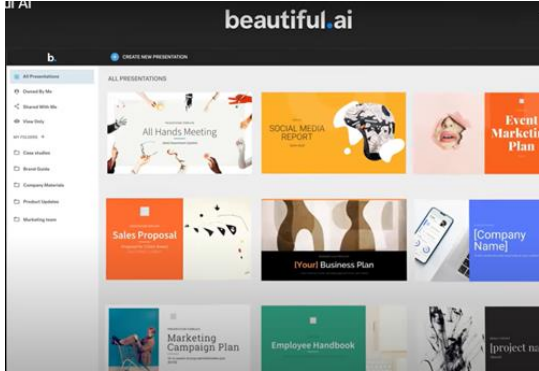

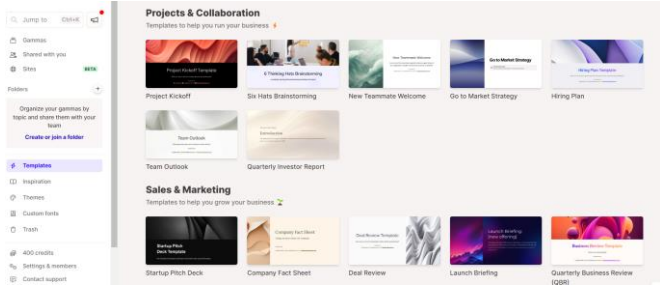
AI tools in presentation creation could potentially improve or replace PowerPoint by automating design, generating content, integrating real-time updates, and creating sophisticated data visualizations. These tools increase productivity by eliminating manual tasks and personalizing presentations. However, challenges include overcoming user preference for familiar programs like PowerPoint and adjusting the user interface. The adoption of AI tools will depend on their ability to meet users' needs for adaptability, personalization, and ease of use in creating impactful presentations.


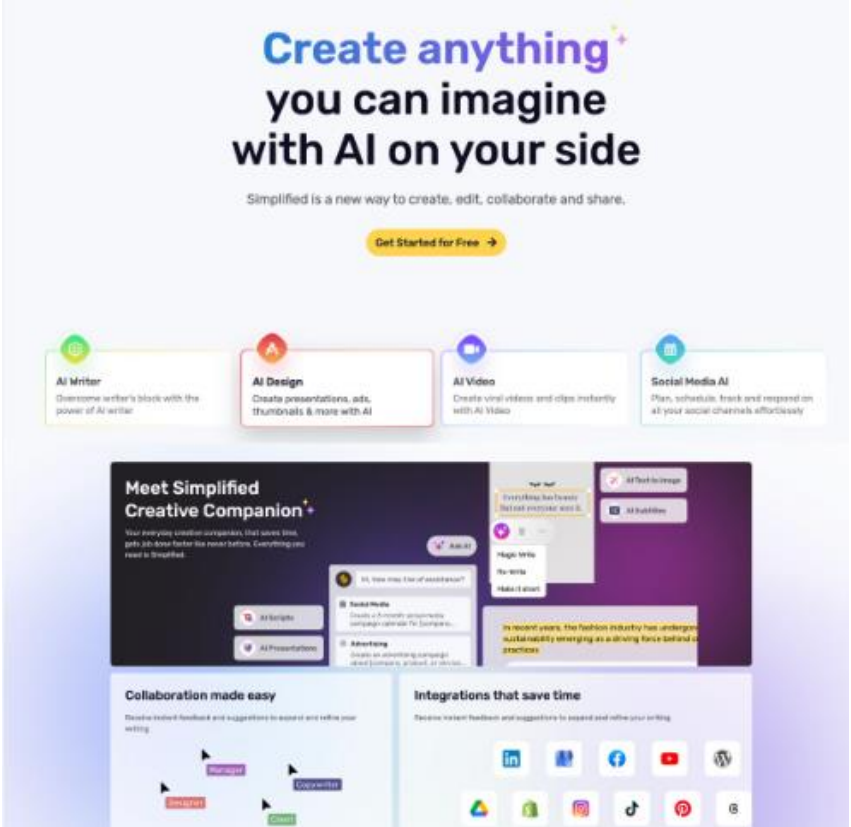
The AI tools for Presentation

Technology is advancing at the same rate as presentation tools used in higher education. An increasing number of people are using AI presentation builders like Canva instead of traditional presentation tools are shown in Table 2.

Table 2: The AI tools for presentation

	Best for
1. Beautiful.ai	<ul style="list-style-type: none"> ● One-Click Presentations: Generate presentations instantly with AI technology ● AI Design: AI-powered design elements ● AI Text Generator: Rewrite and improve text with AI ● Extensive Template Library: Access over 110 pre-designed templates.

	<ul style="list-style-type: none"> ● Seamless PowerPoint Integration: Easily import and export with PowerPoint compatibility. 
<p>2. Canva</p>	<ul style="list-style-type: none"> ● Multi-platform support: Create graphics for multiple platforms ● Extensive Options: Canva provides a wide array of ready-to-use templates. ● AI tools: Canva provides several AI design tools to make creating quick and easy ● Simple interface: Utilize a user-friendly drag-and-drop visual editor. 
<p>3. Gamma.ai</p>	<ul style="list-style-type: none"> ● Analytics Tracking ● Web Sharing: Easily share online and gather feedback through comments. ● Simple Interface: Drag-and-drop visual editor ● Export Options: Export to PowerPoint or PDF formats. 

<p>4. Tome</p>	<ul style="list-style-type: none"> ● Interactive: Creates live, interactive presentations ● Responsive Design: Ensures layouts adapt to any screen size or device. ● Multiple AI Tools: Generates text, images, graphs, 3D models, and more ● Multi-Language Support: Supports multiple languages seamlessly. 
<p>5. Simplified</p>	<ul style="list-style-type: none"> ● Multimedia: Generate presentations and other forms of media ● AI-Powered Editing: Enhance images and text using advanced AI tools. ● Branding: Create logos and design elements with AI ● Simple to Use: One-click editing tools for image editing 

Conclusion

PowerPoint provides essential user control and customization, with a familiar interface and flexible design options. AI tools complement PowerPoint by automating tasks, enhancing impact and engagement, and handling data analysis. PowerPoint excels in complex customization, while AI streamlines workflows and adds advanced insights. Together, they support seamless adoption, merging familiar foundations with AI-driven enhancements.

PowerPoint and AI tools effectively integrate existing presentation assets. PowerPoint supports diverse file formats and media libraries, while AI automates asset management and enriches presentations with advanced data visualizations. The user-friendly interface facilitates seamless integration, optimizing workflows, supporting collaborative editing, and enabling continuous improvement.

AI presentation technologies have improved greatly by combining audience data and real-time feedback. AI changes presentations depending on feedback, delivers audience insights, and boosts involvement with interactive elements. It personalizes content, optimizes communication, and enhances strategy using performance measurements, all while maintaining data privacy. AI automates processes and provides enhanced insights, which improves productivity, engagement, and effectiveness. Despite the benefits of artificial intelligence, human creativity and presentation skills are still required for captivating tales, dramatic images, effective delivery, and audience engagement, resulting in memorable and persuasive presentations.

References:

- Alajmi, Q., Al-Sharafi, M. A., & Abuali, A. (2020). Smart learning gateways for Omani HEIs towards educational technology: Benefits, challenges and solutions. *International Journal of Information Technology and Language Studies*, 4(1), 12–17.
- Chu, H., Tu, Y., & Yang, K. (2022). Roles and research trends of artificial intelligence in higher education: A systematic review of the top 50 most-cited articles. *Australasian Journal of Educational Technology*, 38(3), 22–42.
- Crompton, H., & Song, D. (2021). The potential of artificial intelligence in higher education. *Revista Virtual Universidad Católica Del Norte*, 62, 1–4.
- Gorriz, J. M., Ramirez, J., Ortiz, A., Martinez-Murcia, F. J., Segovia, F., Suckling, J., Leming, M., Zhang, Y. D., Alvarez-Sanchez, J.R., Bologna, G., Bonomini, P., Casado, F. E., Charte, D., Charte, F., Contreras, R., Cuesta-Infante, A., Duro, R. J., Fernandez-Caballero, A., Fernandez-Jover, E., ... Ferrandez, J. M. (2020). Artificial intelligence within the interplay between natural and artificial computation: Advances in data science, trends and applications. *Neurocomputing*, 410, 237–270. <https://doi.org/10.1016/j.neucom.2020.05.078>
- Hwang, G. J., & Tu, Y. F. (2021). Roles and research trends of artificial intelligence in mathematics education: A bibliometric mapping analysis and systematic review. *Mathematics*, 9(6), 584. <https://doi.org/10.3390/math9060584>

- Liang, J. C., Hwang, G. J., Chen, M. R. A., & Darmawansah, D. (2021). Roles and research foci of artificial intelligence in language education: An integrated bibliographic analysis and systematic review approach. *Interactive Learning Environments*. [https:// doi. org/ 10. 1080/ 10494 820. 2021. 19583 48](https://doi.org/10.1080/10494820.2021.1958348)
- Verdú, E., Regueras, L. M., Gal, E., et al. (2017). Integration of an intelligent tutoring system in a course of computer network design. *Educational Technology Research and Development*, 65, 653–677. [https:// doi. org/ 10. 1007/ s11423- 016- 9503-0](https://doi.org/10.1007/s11423-016-9503-0)
- Shukla, A. K., Janmajaya, M., Abraham, A., & Muhuri, P. K. (2019). Engineering applications of artificial intelligence: A bibliometric analysis of 30 years (1988–2018). *Engineering Applications of Artificial Intelligence*, 85, 517–532. [https:// doi. org/10. 1016/j. engap pai. 2019. 06. 010](https://doi.org/10.1016/j.engappai.2019.06.010)
- Winkler-Schwartz, A., Bissonnette, V., Mirchi, N., Ponnudurai, N., Yilmaz, R., Ledwos, N., Siyar, S., Azarnoush, H., Karlik, B., & Del Maestro, R. F. (2019). Artificial intelligence in medical education: Best practices using machine learning to assess surgical expertise in virtual reality simulation. *Journal of Surgical Education*, 76(6), 1681–1690.