

## Feature

# Increasing use of generative artificial intelligence by teenagers

Scott Monteith, Tasha Glenn, John R. Geddes, Peter C. Whybrow, Eric D. Achtyes, Suzanne Huberty, Rita Bauer and Michael Bauer

The use of Generative Artificial Intelligence (GenAI) by teenagers is increasing rapidly. GenAI is a form of artificial intelligence that creates new text, images, video and audio, using models based on huge amounts of training data. However, using GenAI can also create misinformation and biased, inappropriate and harmful outputs. Teenagers are increasingly using GenAI in daily life, including in mental healthcare, and may not be aware of the limitations and risks. GenAI may also be used for malicious purposes that may have long-term, negative impacts on mental health. There is a need to increase awareness of how GenAI may have a negative impact on the mental health of teenagers.

## Keywords

Generative artificial intelligence; artificial intelligence; teenagers; mental health.

## Copyright and usage

© The Author(s), 2026. Published by Cambridge University Press on behalf of Royal College of Psychiatrists. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted re-use, distribution and reproduction, provided the original article is properly cited.

A few years ago, many products that used artificial intelligence were based on machine learning models that made predictions from large sets of example data. For example, machine learning models have been used to predict whether an X-ray shows signs of a tumour.<sup>1</sup> Recently, generative artificial intelligence (GenAI) models were developed, which create new data similar to the input data rather than making predictions. GenAI models that learn to produce new text from input text are labelled large language models (LLMs).<sup>2–3</sup> Examples of LLMs include Chat-4 (ChatGPT) from OpenAI, LLaMA from Meta and Gemini from Google. LLMs can be used to write articles and reports, create chatbots, summarise documents, translate between languages and generate software code. Some GenAI LLM models generate images, video and audio. Adolescents are most likely to interact with LLM GenAI text-based models. The use of GenAI by teenagers has grown rapidly, used by nearly 80% of British teenagers in 2023<sup>4</sup> and 70% of US teenagers in 2024.<sup>5</sup> Teenagers are likely to use GenAI for homework help (53%) but also to fend off boredom (42%).<sup>5</sup>

## Teenage use of GenAI

Adolescents utilise GenAI to write essays and reports, or create videos for social sharing.<sup>6</sup> Many teens are using GenAI without telling their parents or teachers.<sup>7</sup> While 50% of children age 12–18 have used GenAI for school, only 26% of parents are aware of such use.<sup>7</sup> However, the potential consequences of over-reliance on GenAI may have an impact on critical thinking and creativity.<sup>8</sup> Many teens easily believe GenAI output and treat it as if they were conversing with another human due to the human-like tone, aura of confidence and pattern-matching giving the convincing appearance of understanding and responding to what was said.<sup>9</sup> Many teenagers may be unaware that LLM models may produce errors and create misinformation as well as coherent but inaccurate comments, referred to as hallucinations, especially on topics where only limited data was available for training.<sup>10</sup>

While some children age 10–12 identify cultural, gender and racial biases in responses from GenAI,<sup>11</sup> children may not be sufficiently critical of GenAI actions and responses. Children may be unaware that GenAI can make basic errors, such as ChatGPT

giving an incorrect list of the states in the USA.<sup>12</sup> Children and teenagers may be completely unsuspecting that GenAI can create coherent but inaccurate comments, referred to as hallucinations. GenAI may create harmful information that perpetuates historically biased stereotypes.<sup>13</sup> After exposure to the limitations and mistakes of GenAI, teenagers' attitudes may shift over time from overtrusting to disillusionment.<sup>14</sup> Teenagers may also be unaware of the intentional misuse of GenAI, such as to create manipulative content or impersonate individuals.<sup>15</sup> Some teenagers fear a loss of privacy due to unauthorised use of personal data in GenAI applications.<sup>16</sup>

## Malicious use of GenAI LLMs

GenAI LLMs can be used to alter real images to create fake images and create videos to deceive.<sup>17</sup> Fake videos together with GenAI LLM chatbots can generate audio from a text script in any language or voice. GenAI LLM technology allows very sophisticated fake products to be created, commonly called deepfakes.<sup>17</sup> If GenAI LLM generated images, video, audio and text are targeted at specific individuals for the purpose of harassment, it constitutes cyberbullying.<sup>18</sup> Catfishing occurs when an online perpetrator purposefully deceives a victim into believing there is an emotional or romantic connection between them.<sup>19</sup>

## Use of GenAI apps for mental healthcare

The use of GenAI apps for healthcare, or wellness apps, can be risky. The GenAI app may not be able to recognise signs of mental illness.<sup>20</sup> When used for mental healthcare, the patients may not be aware that the app is not a real person and does not have the emotional foundation for a caring relationship and is not capable of providing professional therapy.<sup>21</sup> Some young people prefer human responses rather than GenAI responses for sensitive topics such as relationships and suicidal thoughts.<sup>22</sup> Unlike the non-judgemental listening and rapport of a professional therapist, the emotional expression of the wellness app may not provide the understanding and empathy of a human therapist.<sup>23</sup> The GenAI app may provide answers that are inappropriate and worsen the mental health crises.<sup>20</sup> Additionally, the emotional expression and content of a

GenAI app may not carry appropriately across international cultures.<sup>23</sup> Yet many young people are using GenAI as a mental health advisor, and parents may be unaware that children are conferring with GenAI about their well-being and self-care or using it as a mental health advisor.<sup>9</sup>

### Limitations

The difficulties and challenges in teaching artificial intelligence concepts to youth, including high-school students, were not discussed.<sup>24</sup> The consequences of GenAI on the educational system were not discussed.<sup>8</sup> The growing need and potential solutions for incorporating AI in classrooms for teenagers were omitted.<sup>25,26</sup> The impact of the digital divide, or unequal access to artificial intelligence technologies was omitted. Privacy issues related to GenAI storing personal data were not discussed. The lack of regulation of GenAI and the potential to create stress from technical overload when incorporating artificial intelligence in work processes were not discussed.<sup>27</sup> This paper discusses GenAI models in general, not the strengths or weaknesses of specific products. Cybersecurity and fraud related to GenAI were omitted, although GenAI may increase existing risks and introduce new risks.<sup>28</sup> Ethical standards for the use of GenAI in psychiatry were not included.<sup>29</sup> The need for increased investigation of the potential harms to youth from GenAI was omitted.

### Implications

The use of GenAI by teenagers is increasing rapidly and may have long-term impacts.

Steps are needed to teach children about the limitations of GenAI and how to differentiate fact from fiction. There is a clear need to understand how GenAI may impact the behaviour and mental health status of teenagers.

**Scott Monteith** , Michigan State University College of Human Medicine, Traverse City, Michigan, USA; **Tasha Glenn** , ChronoRecord Association, Fullerton, California, USA; **John R. Geddes**, Department of Psychiatry, University of Oxford, Warneford Hospital, Oxford, UK; **Peter C. Whybrow**, Department of Psychiatry and Biobehavioral Sciences, Semel Institute for Neuroscience and Human Behavior, University of California Los Angeles (UCLA), Los Angeles, California, USA; **Eric D. Achtyes** , Department of Psychiatry, Western Michigan University Homer Stryker M.D. School of Medicine, Kalamazoo, Michigan, USA; **Suzanne Huberty**, Department of Psychiatry, Western Michigan University Homer Stryker M.D. School of Medicine, Kalamazoo, Michigan, USA; **Rita Bauer**, Department of Psychiatry and Psychotherapy, University Hospital Carl Gustav Carus Medical Faculty, Dresden University of Technology, Dresden, Germany; **Michael Bauer**, Department of Psychiatry and Psychotherapy, University Hospital Carl Gustav Carus Medical Faculty, Dresden University of Technology, Dresden, Germany

**Correspondence:** Scott Monteith. Email: [monteit2@msu.edu](mailto:monteit2@msu.edu)

First received 22 Jul 2025, final revision 22 Jul 2025, accepted 3 Nov 2025

### Author contributions

S.M. and T.G. wrote the initial draft. All authors edited, reviewed and approved the final manuscript.

### Funding

This research received no specific grant from any funding agency, commercial or not-for-profit sectors.

### Declaration of interest

J.R.G., Director of the NIHR Oxford Health Biomedical Research Centre, is a member of the *BJPsych* editorial board and did not take part in the review or decision-making process of this paper.

### References

- Zewe A. *Explained: Generative AI*. MIT News, 2023 (<https://news.mit.edu/2023/explained-generative-ai-1109>).
- Kalota F. A primer on generative artificial intelligence. *Educ Sci* 2024; **14**: 172.
- Melnyk O, Ismail A, Ghorashi NS, Heekin M, Javan R. Generative artificial intelligence terminology: a primer for clinicians and medical researchers. *Cureus* 2023; **15**: e49890.
- Thomas D. *Nearly 80% of British Teenagers Have Used Generative AI*. Financial Times, 2023 (<https://www.ft.com/content/6054706b-b339-48a4-a6b4-d64b0bfd346f>).
- Common Sense Media. *New Report Shows Students Are Embracing Artificial Intelligence Despite Lack of Parent Awareness and School Guidance*. Common Sense Media, 2024 (<https://www.commonsensemedia.org/press-releases/new-report-shows-students-are-embracing-artificial-intelligence-despite-lack-of-parent-awareness-and>).
- Munzer T. *How Will Artificial Intelligence (AI) Affect Children?* HealthyChildren.org, 2024 (<https://www.healthychildren.org/English/family-life/Media/Pages/how-will-artificial-intelligence-AI-affect-children.aspx>).
- Common Sense Media. *New Poll Finds Parents Lag behind Kids on AI and Want Rules and Reliable Information to Help Them*. Common Sense Media, 2023 (<https://www.commonsensemedia.org/press-releases/new-poll-finds-parents-lag-behind-kids-on-ai>).
- Yan L, Greiff S, Teuber Z, Gasevic D. Promises and challenges of generative artificial intelligence for human learning. *Nat Hum Behav* 2024; **8**: 1839–50.
- Eliot I. *Generative AI is Going to Shape the Mental Health Status of Our Youths for Generations to Come*. Forbes, 2024 (<https://www.forbes.com/sites/lanceleiot/2024/04/16/generative-ai-is-going-to-shape-the-mental-health-status-of-our-youths-for-generations-to-come/>).
- Stokel-Walker C, Van Noorden R. The promise and peril of generative AI. *Nature* 2023; **614**: 214–6.
- Shrivastava V, Sharma S, Chakraborty D, Kinnula M. Is a sunny day bright and cheerful or hot and uncomfortable? Young children's exploration of ChatGPT. *Proceedings of the 13th Nordic Conference on Human-Computer Interaction (Uppsala, Sweden, 13–16 Oct 2024)*. Association for Computing Machinery, 2024.
- Marcus G. *ChatGPT in Shambles*. Marcus on AI, 2025 (<https://garymarcus.usbstack.com/p/chatgpt-in-shambles>).
- Vassel FM, Shieh E, Sugimoto CR, Monroe-White T. The psychosocial impacts of generative AI harms. *Proceedings of the AAAI Symposium Series (Stanford, California, 25–27 Mar 2024)*. The AAAI Press, 2024.
- Solyst J, Yang E, Xie S, Hammer J, Ogan A, Eslami M. Children's overtrust and shifting perspectives of generative AI. *ArXiv [Preprint]* 2024. Available from: <https://arxiv.org/abs/2404.14511> [cited 22 Apr 2024].
- Salah M, Abdelfattah F, Al Halbusi H. The good, the bad, and the GPT: reviewing the impact of generative artificial intelligence on psychology. *Curr Opin Psychol* 2024; **21**: 101872.
- Yu Y, Sharma T, Hu M, Wang J, Wang Y. Exploring parent-child perceptions on safety in generative AI: concerns, mitigation strategies, and design implications. *ArXiv [Preprint]* 2024. Available from: <https://arxiv.org/abs/2406.10461> [cited 12 May 2025].
- Mitra A, Mohanty SP, Koungianos E. The world of generative AI: deepfakes and large language models. *ArXiv [Preprint]* 2024. Available from: <https://arxiv.org/abs/2402.04373> [cited 6 Feb 2024].
- Ferrara E. GenAI against humanity: nefarious applications of generative artificial intelligence and large language models. *J Comput Soc Sci* 2024; **22**: 1–21.
- Wang F, Topalli V. The cyber-industrialization of catfishing and romance fraud. *Comput Human Behav* 2024; **154**: 108133.
- De Freitas J, Uguralp AK, Oguz-Uguralp Z, Puntoni S. Chatbots and mental health: insights into the safety of generative AI. *J Consum Psychol* 2023; **34**: 481–91.
- De Freitas J, Cohen IG. The health risks of generative AI-based wellness apps. *Nat Med* 2024; **29**: 1–7.
- Young J, Jawara LM, Nguyen DN, Daly B, Huh-Yoo J, Razi A. The role of AI in peer support for young people: a study of preferences for human-and AI-generated responses. *Proceedings of the CHI Conference on Human Factors in Computing Systems (Honolulu, Hawaii, 11–16 May 2024)*. Association for Computing Machinery, 2024.
- Sezgin E, McKay I. Behavioral health and generative AI: a perspective on future of therapies and patient care. *NPJ Mental Health Res* 2024; **3**: 25.
- Greenwald E, Leitner M, Wang N. Learning artificial intelligence: insights into how youth encounter and build understanding of AI concepts. *Proceedings of*

- the AAAI Conference on Artificial Intelligence (virtual conference, 2–9 Feb 2021). The AAAI Press, 2021.
- 25 Forsyth S, Dalton B, Foster EH, Walsh B, Smilack J, Yeh T. Imagine a more ethical AI: using stories to develop teens' awareness and understanding of artificial intelligence and its societal impacts. *2021 Conference on Research in Equitable and Sustained Participation in Engineering, Computing, and Technology (RESPECT) (virtual conference, 23–27 May 2021)*. IEEE, 2021.
- 26 Macar U, Castleman B, Mauchly N, Jiang M, Aouissi A, Aouissi S, et al. Teenagers and artificial intelligence: bootcamp experience and lessons learned. *ArXiv [Preprint]* 2023. Available from: <https://arxiv.org/abs/2312.10067> [cited 27 June 2025].
- 27 Wach K, Duong CD, Ejdys J, Kazlauskaitė R, Korzynski P, Mazurek G, et al. The dark side of generative artificial intelligence: a critical analysis of controversies and risks of ChatGPT. *Entrepren Busin Econ Rev* 2023; **11**: 7–30.
- 28 Bullwinkel B, Kumar RSS. 3 Takeaways from Red Teaming 100 Generative AI Products. Microsoft Security, 2025 (<https://www.microsoft.com/en-us/security/blog/2025/01/13/3-takeaways-from-red-teaming-100-generative-ai-products/>).
- 29 King DR, Nanda G, Stoddard J, Dempsey A, Hergert S, Shore JH, et al. An introduction to generative artificial intelligence in mental health care: considerations and guidance. *Curr Psychiatry Rep* 2023; **25**: 839–46.