# How ELIZA’s legacy warns of AI’s emotional and ethical risks today



In the annals of computing history, ELIZA stands as a pivotal creation, developed by MIT professor Joseph Weizenbaum between 1964 and 1966. This early chatbot exemplified a groundbreaking approach to human-computer interaction by simulating conversation through simple pattern matching and reflective responses. For instance, a user might express discomfort by stating, “I feel rotten,” to which ELIZA would respond, “Why do you feel rotten?” Despite the simplicity of this exchange, many users perceived ELIZA as an intelligent conversational partner, a phenomenon that Weizenbaum found deeply troubling.

The recent recovery of ELIZA's original code has reignited discussions about the implications of this early artificial intelligence. Scholars, including Rupert Lane, have highlighted how ELIZA not only represents an important step in computational history but also illustrates the complexities of human emotional projection onto machines. Weizenbaum's concerns about this projection stemmed from his observations of users forming emotional attachments to the program, raising critical ethical questions regarding the influence of such machines on human behaviour and relationships.

Weizenbaum warned about the potential for machines to evoke powerful psychological responses in users, a concern he articulated in his later work. He posited that even brief interactions with rudimentary algorithms could lead ordinary individuals to develop delusional beliefs about the responsiveness of machines. He cautioned against attributing human-like qualities to computers, which lack genuine understanding or emotional depth. This "ELIZA effect," as it has been termed, underscores a significant dilemma in today's AI landscape, where sophisticated language models are gaining traction and eliciting similarly misguided sentiments of connection and comprehension from users.

As we look at the modern implications of this phenomenon, prominent voices in academia and beyond caution against the overreliance on AI in educational settings and beyond. Gary Smith, a business professor at Pomona College, recently remarked that the use of large language models (LLMs) in education may contribute to a dumbing down of critical thinking. He notes that students may choose to rely on generated text to fulfill academic requirements rather than engaging deeply with course material. Such practices raise concerns about not just intellectual engagement but also emotional development, as dependence on AI for social interactions might lead to diminished relationships with peers and family.

Moreover, the pervasive use of social media platforms often blurs the boundaries between authentic human interaction and artificial companionship. Smith views the potential for users to forge attachments with AI, devoid of the flaws inherent in human relationships, as particularly concerning. He argues that AI entities present a deceptive allure, offering constant support while potentially exacerbating social isolation and emotional disconnection.

Weizenbaum’s warnings about the ethical implications of AI resonate more profoundly in this context. His assertions from his seminal 1976 book, "Computer Power and Human Reason," articulate that while AI advancements are impressive, they must be approached with caution. He argued that machines should never be entrusted with weighty decisions affecting human lives since they lack the essential qualities of compassion and nuanced understanding. The relevance of this viewpoint is more pronounced now than ever, as we confront an era where the boundaries of machine autonomy and responsibility are increasingly tested.

As we grapple with the implications of AI's evolution from ELIZA to contemporary chatbots, Weizenbaum's initial concerns remain pertinent. His caution about the psychological interplay between humans and machines underscores an urgent need for ethical scrutiny as we integrate AI into everyday life. This trajectory invites us to reflect critically on the nature of our interactions with technology and to recognise the limitations inherent in our digital companions, ensuring that we do not neglect the richness of human relationships in favour of sterile algorithms.

## Reference Map:

* Paragraph 1 – [[1]](https://mindmatters.ai/2025/05/1960s-chatbot-pioneer-was-right-to-worry-about-what-hed-created/), [[3]](https://en.wikipedia.org/wiki/ELIZA)
* Paragraph 2 – [[1]](https://mindmatters.ai/2025/05/1960s-chatbot-pioneer-was-right-to-worry-about-what-hed-created/), [[2]](https://spectrum.ieee.org/why-people-demanded-privacy-to-confide-in-the-worlds-first-chatbot), [[4]](https://link.springer.com/article/10.1007/s00146-018-0825-9)
* Paragraph 3 – [[1]](https://mindmatters.ai/2025/05/1960s-chatbot-pioneer-was-right-to-worry-about-what-hed-created/), [[4]](https://link.springer.com/article/10.1007/s00146-018-0825-9), [[5]](https://en.wikipedia.org/wiki/ELIZA_effect)
* Paragraph 4 – [[6]](https://en.wikipedia.org/wiki/Computer_Power_and_Human_Reason), [[7]](https://learningpages.org/articles/technology/eliza/)
* Paragraph 5 – [[1]](https://mindmatters.ai/2025/05/1960s-chatbot-pioneer-was-right-to-worry-about-what-hed-created/), [[5]](https://en.wikipedia.org/wiki/ELIZA_effect)

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## Bibliography

1. <https://mindmatters.ai/2025/05/1960s-chatbot-pioneer-was-right-to-worry-about-what-hed-created/> - Please view link - unable to able to access data
2. <https://spectrum.ieee.org/why-people-demanded-privacy-to-confide-in-the-worlds-first-chatbot> - This article discusses the development of ELIZA, the first chatbot created by MIT professor Joseph Weizenbaum between 1964 and 1966. ELIZA simulated conversations by reflecting users' statements back at them, leading some users to believe they were interacting with an intelligent agent. Weizenbaum was concerned about this phenomenon, noting that brief interactions with a simple program could induce powerful delusional thinking in normal people. He observed that users began forming emotional attachments to the machine, even after understanding its lack of comprehension. This raised questions about the potential for machines to influence human behavior and the ethical implications of such interactions.
3. <https://en.wikipedia.org/wiki/ELIZA> - ELIZA was an early natural language processing computer program developed from 1964 to 1967 at MIT by Joseph Weizenbaum. It simulated conversation by using pattern matching and substitution methodology, giving users the illusion of understanding. The most famous script, DOCTOR, simulated a psychotherapist of the Rogerian school, reflecting users' statements back at them. Weizenbaum intended the program to explore communication between humans and machines. He was surprised by users attributing human-like qualities to the program, leading him to question the nature of machine intelligence and its potential impact on human interactions.
4. <https://link.springer.com/article/10.1007/s00146-018-0825-9> - This scholarly article examines the impact of ELIZA, the first chatbot developed by Joseph Weizenbaum in the 1960s, on the field of artificial intelligence. It discusses how ELIZA's design and implementation led to the 'ELIZA effect,' where users attributed human-like understanding to the program despite its lack of true comprehension. The article also explores Weizenbaum's concerns about the overestimation of machine intelligence and the potential consequences of such misconceptions. It highlights the need for a critical examination of AI's role in society and the ethical implications of human-machine interactions.
5. <https://en.wikipedia.org/wiki/ELIZA_effect> - The ELIZA effect refers to the tendency of people to attribute human-like understanding to computer programs, even when they lack true comprehension. Named after the 1966 chatbot ELIZA, developed by Joseph Weizenbaum, the effect highlights how users can be deceived into believing they are interacting with an intelligent agent. This phenomenon has significant implications for human-machine interactions and raises questions about the ethical use of AI. The article discusses various instances of the ELIZA effect and its relevance in contemporary AI applications, emphasizing the need for awareness and critical thinking when engaging with AI systems.
6. <https://en.wikipedia.org/wiki/Computer_Power_and_Human_Reason> - In his 1976 book 'Computer Power and Human Reason,' Joseph Weizenbaum argues that while artificial intelligence may be possible, computers should not be entrusted with important decisions, as they lack human qualities such as compassion and wisdom. The book reflects on the limitations of AI and the ethical considerations of allowing machines to make decisions that affect human lives. Weizenbaum's work has sparked scholarly debate on the acceptable scope of AI applications, particularly in fields where human welfare and ethical considerations are paramount.
7. <https://learningpages.org/articles/technology/eliza/> - This article provides an overview of ELIZA, the first chatbot developed by MIT professor Joseph Weizenbaum between 1964 and 1966. It discusses how ELIZA simulated conversations by reflecting users' statements back at them, leading some users to believe they were interacting with an intelligent agent. The article also highlights Weizenbaum's concerns about users attributing too much intelligence or empathy to machines and his warnings against blindly trusting computers to make decisions in areas requiring genuine human judgment. Additionally, it explores ELIZA's legacy and its influence on the development of future chatbots and AI systems.