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Chatbots for Journalism

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ABSTRACT

The intersection of artificial intelligence and journalism has given rise to innovative tools designed to transform how news is produced, delivered, and consumed. Among these tools, chatbots have emerged as a significant medium for audience engagement and automated reporting. A chatbot is a software application that utilizes natural language to communicate with humans. The integration of chatbots in journalism represents a shift from passive news consumption to active, conversational engagement. Chatbots represent a transformative development in journalism, offering new paradigms for audience engagement and newsroom efficiency. They are already a burgeoning source of news. Chatbots in journalism can be used for efficient user interaction in the sense that they provide a more human-like way of navigating and accessing news-related content. This paper investigates the multifaceted role of chatbots in modern journalism.

KEYWORDS: *chatbots, automation, journalism, journalists, news, news media.*

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INTRODUCTION

The news industry is currently navigating a critical juncture, shaped by the rapid advancement of digital technologies and shifting audience consumption habits. Journalism has continually adapted to technological advancements, evolving from print to broadcast to digital and mobile platforms. It is a sector always renowned for its unique entanglement with technological developments. In recent years, artificial intelligence (AI) has become the latest frontier in this evolution, fundamentally altering newsroom operations. A prominent manifestation of AI in media is the chatbot—a software application designed to simulate human conversation through text or voice interactions . Chatbots have evolved into sophisticated tools capable of summarizing news, answering complex queries based on vast archives, and personalizing content delivery for individual readers.

In an era characterized by a 24-hour news cycle and the dominance of social media platforms, media organizations face intense pressure to produce accurate, engaging content at an unprecedented pace. To meet these demands, newsrooms are increasingly turning to artificial intelligence (AI), with AI-powered chatbots emerging as a particularly impactful innovation. The traditional model of news consumption is largely one-directional: journalist report, and audiences read or watch. Chatbots disrupt this model by introducing a conversational dynamic that changes how people interact with news content. Chatbots, driven by large language models (LLMs) and natural language processing (NLP), are software applications designed to simulate human conversation [1]. Widely used chatbots include ChatGPT, Gemini, Perplexity, Claude, Copilot, DeepSeek, Meta AI, Manus, and Grok. The AI chatbots are available on Facebook, Instagram, WhatsApp, and Messenger, allowing users to get news updates.

CONCEPT OF CHATBOTS

Chatbots are also known as conversational agents, interactive agents, virtual agents, virtual humans, or virtual assistants. Chatbots, as part of AI devices, are computer programs designed to carry on a dialogue with users using natural languages. Healthcare has become an attractive market for chatbot applications. The main purpose of healthcare chatbots is to help

patients in less time and for less money than it would take to visit a medical professional. Healthcare chatbots have great potential, but they still have a long way to go to win over consumers.

The first chatbot (Eliza) was developed in 1966 by Joseph Weizenbaum for psychiatric patients. Since then, Chatbots have gained popularity in all the domains such as banking, e-commerce, healthcare, education, and smart homes [2]. A chatbot describes a computer system or the situation in which human is chatting with the robot (computer).

Chatbots may be regarded as mimic systems which imitate the conversations between two individuals. They employ different degrees of human-like appearance and behavior, such as facial expressions, compassion, humor, and tone of voice. Thus, chatbots are computer programs with a conversational user interface capable of emulating natural, conversational interpersonal exchange. Fueled by artificial intelligence (AI), chatbots are becoming a viable option for human–machine interaction.

Chatbots can be integrated into various messaging platforms, websites or mobile apps to interact with customers and prospects in real time. For example, healthcare chatbot can diagnose the disease and provide basic details about the disease before consulting a doctor. It is designed to reduce the healthcare costs and improve accessibility to medical knowledge. Healthcare chatbots depend on natural language processing (NLP) that helps users to submit their health problem [3]. Figure 1 illustrates a chatbot based on three key structures in AI [4].

There are essentially two types of chatbots: (1) Fixed chatbots: These are programs with fixed information and hence offer limited help; (2) AI-based: These chatbots thrive on dynamic learning and constantly update themselves using various customer interactions. An AI-based chatbot has three domains: databases, natural language processing (NLP), and machine learning (ML). Mostly chatbots are some kind of computer programs that use natural language processing (NLP) for interpreting the user input and generating the corresponding response. In other words, NLP helps users to submit their problem about the health. The aim of the system is to replicate a person's discussion. Chatbots interact with users using natural languages. Chatbot may ask a review of symptoms and relevant information such past medical or surgical history. It provides response by use of an efficient Graphical User Interface (GUI). The GUI is an artificial creation invented to enable interactions between human and computers. The chatbot system helps users to freely submit their complaints and queries regarding health by voice since customer satisfaction is the major concern for developing this system [4,5].

One may also regard a chatbot as a software system that allows you to simulate real conversations between devices and users by means of a conversational interface [6]. Chatbots use three types of conversation styles [7]: static, semi-automated, and fully-automated conversation dialogue. The static conversation style is rule-based and it is easy to build. Automated refers to the generative-based model, which uses deep learning models to build interaction. This is very complex and requires a lot of training data. The semi-automated automates some parts while the rest is handled by a human. Figure 2 shows some examples of what chatbots can do [8], while Figure 3 shows that a chatbot is designed to answers questions with proper answers [9].

CHATBOTS FOR JOURNALISM

The integration of artificial intelligence (AI) into journalism presents a transformative shift in how news is gathered, produced, and consumed. It has steadily evolved from behind-the-scenes automation to direct, interactive reader engagement. At the forefront of this shift are AI chatbots—conversational interfaces designed to simulate human interaction and deliver information efficiently. Chatbots have increasingly found a home in modern newsrooms. News organizations are deploying them to help audiences interpret complex stories, personalize news consumption, and interact with extensive journalistic archives. In journalism, generative AI chatbots, such as OpenAI's ChatGPT, Google's Gemini, and Microsoft's Copilot, are increasingly being adopted to automate routine tasks, summarize extensive datasets, and enhance audience engagement. Newsrooms are experimenting with AI-powered virtual assistants to provide personalized news summaries, while users are turning to generative search engines as alternatives to traditional search [1]. Figure 4 shows a representation of chatbot in journalism [10].

TYPES OF JOURNALISM CHATBOTS

Chatbots can be classified in various ways. There are two prevailing categories that all chatbots fall under, depending on what procedure they follow to respond to users: "retrieval-based" chatbots and "generative" chatbots. Depending on the type of answer a chatbot is able to provide, they can be classified as retrieval-based, in which chatbot incorporates a repository with predefined responses, and employs a heuristic process to select the appropriate response based on the input and context. In other words, the responses from this kind of chatbots are predetermined.

There are also chatbots that are based on generative models, which do not rely on pre-defined responses.

This category consists of software capable of creating new responses from scratch to better match the queries of the user with the help of techniques such as machine translation. The chatbot can uphold a conversation with a user in a very natural manner. The majority of chatbots are based on the retrieval-based model and they exhibit considerable limitation due to the fact that they are unable to correspond to unknown cases for which predefined answer exists.

There also news media chatbots, which can be used to support a new way of news reporting. Specifically, users can use a chatbot to ask questions about news events, people, or places, and the app replies with relevant content [11,12].

APPLICATIONS OF CHATBOTS FOR JOURNALISM

Today, news organizations utilize chatbots across various facets of the journalistic process, primarily focusing on audience engagement, news delivery, and internal newsroom efficiency. Common applications include the following [1,10,13-15]:

- *AI Journalism:* One of the primary benefits of chatbots in journalism is their capacity to streamline newsroom workflows by automating routine and time-consuming tasks. In fact, the automation of the news dissemination procedure is the reason chatbots are being used in the first place. AI journalism, also known as automated journalism, is the use of AI technologies to produce news stories, articles, and reports without human intervention. From chatbots to automated news stories, AI journalism is changing the way news is gathered, analyzed, and delivered to audiences worldwide. One of the most common applications of AI in journalism is the use of chatbots, which are computer programs that simulate human conversation, allowing users to interact with a system in a natural language. Another popular application of AI in journalism is the creation of automated news stories.
- *Investigative Assistance:* Chatbots serve as powerful research assistants. They can help journalists brainstorm story angles, suggest potential interview questions, and provide comprehensive background information on niche topics. Beyond administrative support, chatbots and generative AI tools offer profound benefits for investigative journalism. They equip reporters with advanced capabilities to analyze large datasets, identify hidden patterns, and generate code, thereby lowering the technical barriers to entry for data-driven reporting. AI tools can rapidly analyze large datasets, summarize lengthy documents, and identify patterns that might take humans weeks to uncover. These tools act as force multipliers, allowing investigative journalists to focus on high-level analysis and storytelling rather than manual data extraction.
- *Newsroom Chatbots:* Chatbots augment newsroom operations by automating routine tasks, assisting in investigative research, and streamlining data analysis. Several leading news organizations have developed bespoke chatbots trained specifically on their own archives. This approach attempts to mitigate the risks associated with general-purpose large language models (LLMs), which scrape the open Internet and are prone to presenting unvetted or false information as fact. By restricting the chatbot's knowledge base to vetted, published reporting, these organizations aim to provide trustworthy, conversational search experiences. While some newsrooms build proprietary bots, others are partnering with major tech companies to integrate verified journalism into existing AI platforms. For example, in the Philippines, the investigative newsroom Rappler launched "Rai," a conversational bot that draws on more than 400,000 published stories and vetted datasets, including election results and voter rolls. Figure 5 shows a chatbot in a newsroom [16].
- *Fact-Checking:* In an age where misinformation proliferates rapidly, fact-checking is a critical but labor-intensive journalistic duty. While chatbots themselves are susceptible to "hallucinations" and factual errors, specialized AI tools and internal newsroom chatbots are being developed to assist in the verification process. By quickly cross-referencing claims against established databases and archives, these tools can provides with immediate context and historical data. However, it is crucial to note that chatbots serve as an aid rather than a replacement for human verification, requiring a "human-in-the-loop" approach to ensure accuracy.
- *Data Analysis:* Investigative journalism often involves analyzing massive datasets to uncover systemic issues or corruption. Historically, this required specialized coding skills. Today, AI tools like ChatGPT can assist journalists in writing complex spreadsheet formulas, Python scrapers, and data analysis scripts. As noted by data journalists, these tools can bypass hours of technical troubleshooting, allowing reporters to focus on the journalistic craft and the implications of the data rather than the mechanics of extracting it.

- *Interactive Interfaces:* Several major news organizations have pioneered the use of internal generative AI chatbots designed to answer reader questions based exclusively on the outlet's own reporting archives. Unlike general-purpose LLMs that scrape the unvetted Internet, these internal chatbots draw answers solely from published, fact-checked stories and structured data within the newsroom's archive. This provides readers with trustworthy, synthesized answers to their queries, complete with citations and links to the original articles. Leading examples of these smart news interfaces include the Rai tool from Rappler in the Philippines, Ask FT at the Financial Times, Forbes' Adelaide chat, and Ask The Post AI.
- *Journalism Education*: As artificial intelligence chatbots enter journalism education, instructors are making choices about whether to allow their use. One perspective that may help them make this decision comes from considering the importance of perceptions of self-efficacy in learning and motivation. Through interviews conducted with journalism students who have been instructed in the use of AI for specific journalism tasks, there is evidence that using AI in journalism education can put barriers between students and the performance accomplishments they need to build confidence. Happily for journalism educators, free tools to help students learn about how to create simple chatbots are available.

BENEFITS

The integration of chatbots into journalism represents a significant technological leap that offers profound benefits across the spectrum of news production and consumption. Chatbots offer unprecedented opportunities for personalization and efficiency. The integration of chatbots serves to enhance the quality and accessibility of journalism rather than detract from it. Other benefits of chatbots in journalism include the following [1,17]:

- *Automation:* By automating routine tasks and providing advanced data analysis capabilities, chatbots empowers to dedicate more time to in-depth investigative reporting and critical analysis. Tasks such as transcribing audio, translating texts, and drafting preliminary summaries of lengthy reports can be executed almost instantaneously. For instance, chatbots can process complex government documents or financial reports and extract the most salient points, allowing journalists to quickly grasp the core issues without spending hours reading the full texts. This automation frees human journalists to focus on higher-level cognitive tasks, such as critical analysis, narrative construction, and field reporting.
- *24/7 Availability*: Unlike human reporters, chatbots are available around the clock, allowing users to access news at any time without delay. Chatbots can disseminate news updates faster than traditional methods, ensuring that readers receive the latest information promptly.
- *Audience Engagement:* Perhaps the most visible impact of chatbots in journalism is their role in transforming how audiences interact with the news. Moving away from a traditional one-way broadcasting model, chatbots facilitate a two-way dialogue, enhancing personalization and potentially rebuilding reader trust.
- *Personalization:* Modern news chatbots aim to provide personalized, interactive experiences. They allow for hyper-personalized news consumption. Instead of navigating a traditional website, users can ask specific questions and receive tailored summaries. For instance, The Washington Post launched "Ask The Post AI," an experimental tool that answers user queries using exclusively published journalism from its archives. Readers can ask a chatbot to explain a complex geopolitical event in simpler terms or tailor the explanation to their specific level of prior knowledge.
- *Multilingual Support*: Chatbots can be programmed to deliver news in multiple languages, making content accessible to a broader, global audience. In today's globalized world, your stories can reach a diverse audience. Being able to interact and provide support in various languages removes barriers, making your content more inclusive and accessible.

CHALLENGES

The adoption of chatbots in journalism is not without significant challenges, including concerns over accuracy, algorithmic bias, ethical dilemmas, transparency, technical complexities, intellectual property disputes, the impact on journalistic labor, the risk of AI "hallucinations," and the potential erosion of trust. The fundamental tenets of journalism—accuracy, objectivity, accountability, and transparency—are frequently challenged by the operational realities of current AI models. Other challenges of chatbots in journalism include the following [1,17]:

- *Ethical Concerns*: While the benefits of chatbots in journalism are substantial, their implementation is fraught with ethical and practical challenges.

The primary concerns revolve around accuracy, bias, transparency, and the potential displacement of human journalists. Journalism requires a nuanced understanding of social, cultural, and political contexts—a capability that AI currently lacks. Chatbots analyze data and recognize patterns but do not possess human intuition or empathy. Inherent biases and a lack of human intuition pose severe ethical dilemmas.

- *Bias:* AI models inherit the biases present in their training data. If the underlying data contains prejudices, the chatbot is likely to replicate or even amplify these biases, potentially producing content that discriminates against or stigmatizes certain groups. This contradicts the journalistic mandate for fair and balanced reporting.
- *Hallucinations:* The most pressing issue with generative AI chatbots is their propensity to "hallucinate"—presenting fabricated or incorrect information as fact. In a journalistic context, where credibility is paramount, such errors can be devastating. To combat this, newsrooms like The Washington Post and Rappler restrict their chatbots to search only internal, verified archives rather than the open Internet. Large language model (LLM) AI chatbots search almost the whole Internet, including unvetted sources. LLM models are notorious for bias, error, and hallucinations.
- *Trust:* Trust in news media is a critical issue because it is the currency of journalism. The proliferation of AI-generated content, coupled with high-profile instances of AI errors threatens to erode audience trust. According to the Reuters Institute Digital News Report 2025, while the use of AI chatbots for news is growing—particularly among younger audiences—overall trust in AI-generated news remains moderate. Audiences value the speed and aggregation capabilities of chatbots but remain skeptical of their reliability. News organizations must clearly label AI-generated content and provide avenues for users to verify the source material. Newsrooms must navigate the profound risks of misinformation, bias, and eroding public trust by implementing strict editorial guardrails and maintaining transparency.
- *Transparency:* Transparency is paramount. News organizations must clearly disclose when and how AI chatbots are used in the reporting process or in audience-facing tools to maintain the trust of their readership. By offering readers direct access to a newsroom's body of work through a conversational interface, publishers can demonstrate transparency and the depth of their reporting. When a chatbot provides a clear, accurate answer sourced directly from the newsroom's journalism, it reinforces the brand's credibility and authority.
- *Job Displacement:* The automation of news delivery and summarization raises concerns about job displacement within the industry. While chatbots can handle routine reporting and data analysis, experts argue that AI cannot replace the critical thinking, empathy, and investigative rigor of human journalists. Instead, the prevailing view is that AI will augment journalistic workflows, freeing reporters from tedious tasks to focus on complex, original reporting. AI chatbots, when utilized as collaborative partners rather than replacements, hold the potential to revitalize the journalism industry, making it more efficient, engaging, and resilient in the digital age. Over the past two decades, the US has lost two-thirds of its newspaper journalists, a trend driven by the dominance of tech platforms over digital advertising. The advent of AI threatens to accelerate this job displacement. Media companies, facing shrinking revenues, may use AI as a justification for further staff reductions.
- *Intellectual Property:* The relationship between AI developers and news publishers is increasingly adversarial regarding intellectual property (IP). Generative AI models are trained on massive corpora of text scraped from the Internet, heavily relying on copyrighted journalistic content without compensation or permission. This unauthorized use has led to significant legal battles. Policymakers must also address the intellectual property imbalances to ensure that the creators of original journalistic content are fairly compensated.

FUTURE OF CHATBOTS FOR JOURNALISM

Looking ahead, the role of chatbots in journalism is poised to expand, driven by advancements in AI and changing consumer habits. Future chatbots are expected to evolve from reactive answer engines to proactive "agents" capable of anticipating user needs, monitoring specific topics, and delivering highly customized news briefings. As users increasingly receive answers directly from chatbots, traditional search traffic to news websites may decline. The future of chatbots in journalism lies not in replacing human reporters, but in augmenting their capabilities, ensuring that technology serves the fundamental journalistic mission of informing the public accurately and ethically. The successful application of chatbots in journalism will depend on maintaining

strict editorial guardrails, prioritizing factual accuracy, and ensuring that AI serves to augment, rather than replace, the essential human element of reporting [1].

CONCLUSION

Chatbots represent a transformative development in journalism, shifting the paradigm from static broadcasting to dynamic, personalized conversation. By helping readers summarize, contextualize, and act upon the news, chatbots demonstrate how AI can enhance audience engagement and breathe new life into vast news archives. When implemented with robust human oversight, chatbots serve as a vital tool for modernizing journalism, fostering reader trust, and sustaining the news media landscape in a digital-first world.

The integration of chatbots into journalism is a double-edged sword. While AI offers unprecedented tools for efficiency and personalization, its challenges are profound and multifaceted. The unauthorized use of journalistic content for AI training undermines the economic foundation of the news industry, accelerating job losses and eroding public trust. The news industry must be actively engaged in the AI revolution and journalists should play a role in the development of new AI tools. Chatbots can help journalists tell their stories differently or collect information from readers. Rather than replacing traditional journalism, chatbots serve as a supplementary layer that helps audiences interpret, summarize, and apply news to their personal lives. More information about chatbots in journalism can be found in the books [18-20] and a related journal: *Studies in Media and Communication.*

REFERENCES

[1] https://manus.im

[2] R. V. Belfin et al., "A graph based chatbot for cancer patients," *Proceedings of the 5th International Conference on Advanced Computing & Communication Systems,* 2019, pp. 717-721.

[3] O. O. Oyebode and R. Orji, "Likita: A medical chatbot to improve healthcare delivery in Africa," https://www.researchgate.net/publication/330522151_Likita_A_Medical_Chatbot_To_Improve_HealthCare_Delivery_In_Africa/link/5c45f692458515a4c736683d/download

[4] R. Dharwadkar and N. A. Deshpande, "A medical chatBot," *International Journal of Computer Trends and Technology*. vol. 60, no. 1, June 2018, pp. 41-45.

[5] S. Divya et al., "A self-diagnosis medical chatbot using artificial intelligence," *Journal of Web Development and Web Designing,* vol. 3, no. 1, 2018.

[6] S. Valtolina, B. R. Barricelli, and S. D. Gaetano (2019): "Communicability of traditional interfaces VS chatbots in healthcare and smart home domains," *Behaviour & Information Technology,* 2019.

[7] A. Fadhil and G. Schiavo, "Designing for health chatbots," https://arxiv.org/ftp/arxiv/papers/1902/1902.09022.pdf

[8] "The best free chatbot platform," September 2019, https://in.pinterest.com/pin/346988346289381600/

[9] G. Siocon, "How HR chatbots can improve HR processes (includes company examples)," https://www.aihr.com/blog/hr-chatbots/

[10] A. Walsworth, "AI journalism: From chatbots to automated news stories," https://adamwalsworth.com/ai-journalism-from-chatbots-to-automated-news-stories/

[11] A. Veglis and T. A. Maniou, "Chatbots on the rise: A new narrative in journalism," *Studies in Media and Communication,* vol. 7, no. 1, June 2019.

[12] E. Kotenidis et al., "Integrating chatbot media automations in professional journalism: An evaluation framework," *Future Internet*, vol. 14, no. 11, November 2022.

[13] R. Philip, "How newsrooms are using AI chatbots to leverage their own reporting — and build trust," August 2025, https://gijn.org/stories/newsrooms-using-ai-chatbots-leverage-reporting/

[14] D. Thompson and M. Widerman, "Artificial intelligence chatbots and self-efficacy in the journalism classroom," *Journalism & Mass Communication Educator*, March 2026.

[15] R. Jones, "How to easily introduce chatbots to journalism students," February 2018, https://mediashift.org/2018/02/easily-introduce-chatbots-journalism-students/

[16] "Reinvent the newsroom: How DocsBot AI chatbots are changing journalism," March 2024, https://docsbot.ai/article/docsbot-custom-ai-chatbots-for-journalism

[17] Sandeep, "How news chatbots are transforming digital journalism," April 2025, https://fastbots.ai/blog/how-news-chatbots-are-transforming-digital-journalism

[18] A. Freed, E. Rozsa, and C. Jacobs, *Effective Conversational AI: Chatbots that Work.* Manning, 2025.

[19] D. Sands, *AI Chatbots Explained: Your Conversational Assistant.* Bowker, 2025.

[20] K. N. Mirabella and E. Butow, *AI ChatBots For Dummies.* For Dummies, 2026.

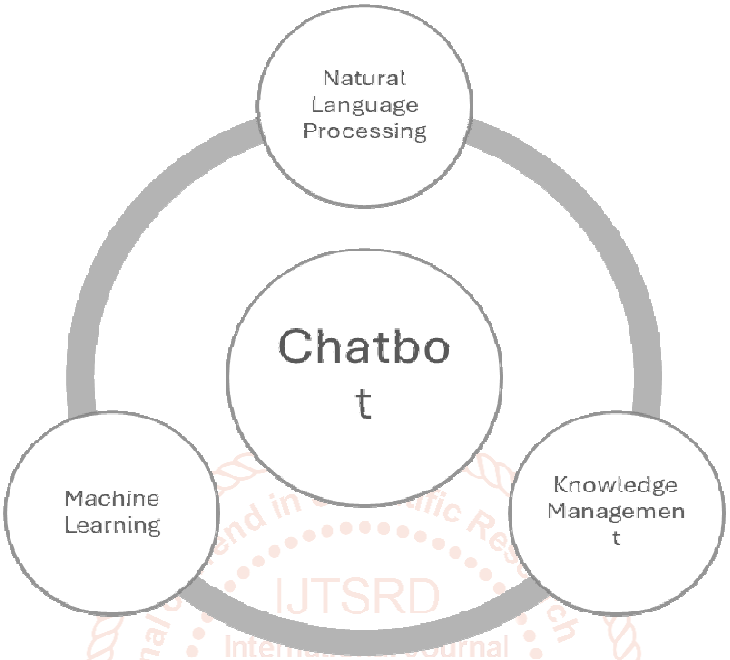

Figure 1 A chatbot based on three key structures in AI [4].

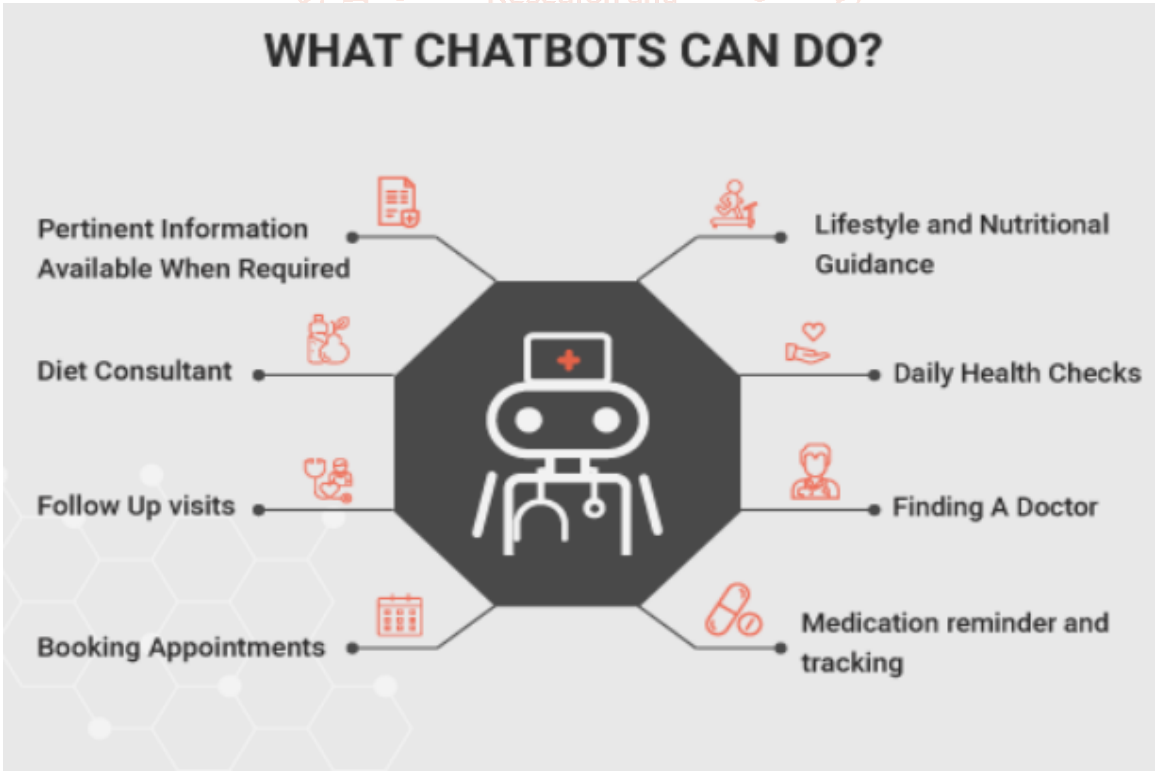

Figure 2 Typical examples of what chatbots can do [8].

Figure 3 A chatbot is designed to answers questions with proper answers [9].

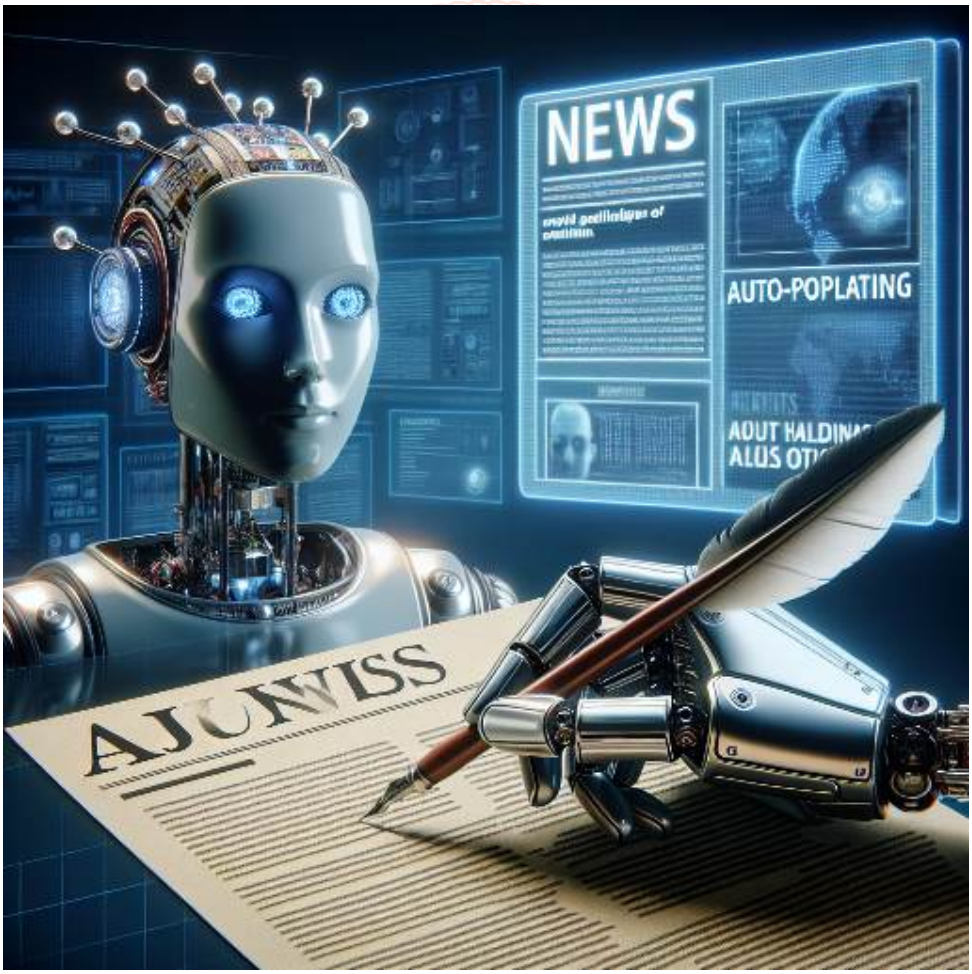

Figure 4 A representation of chatbot in journalism [10].

Figure 5 A chatbot in a newsroom [16].