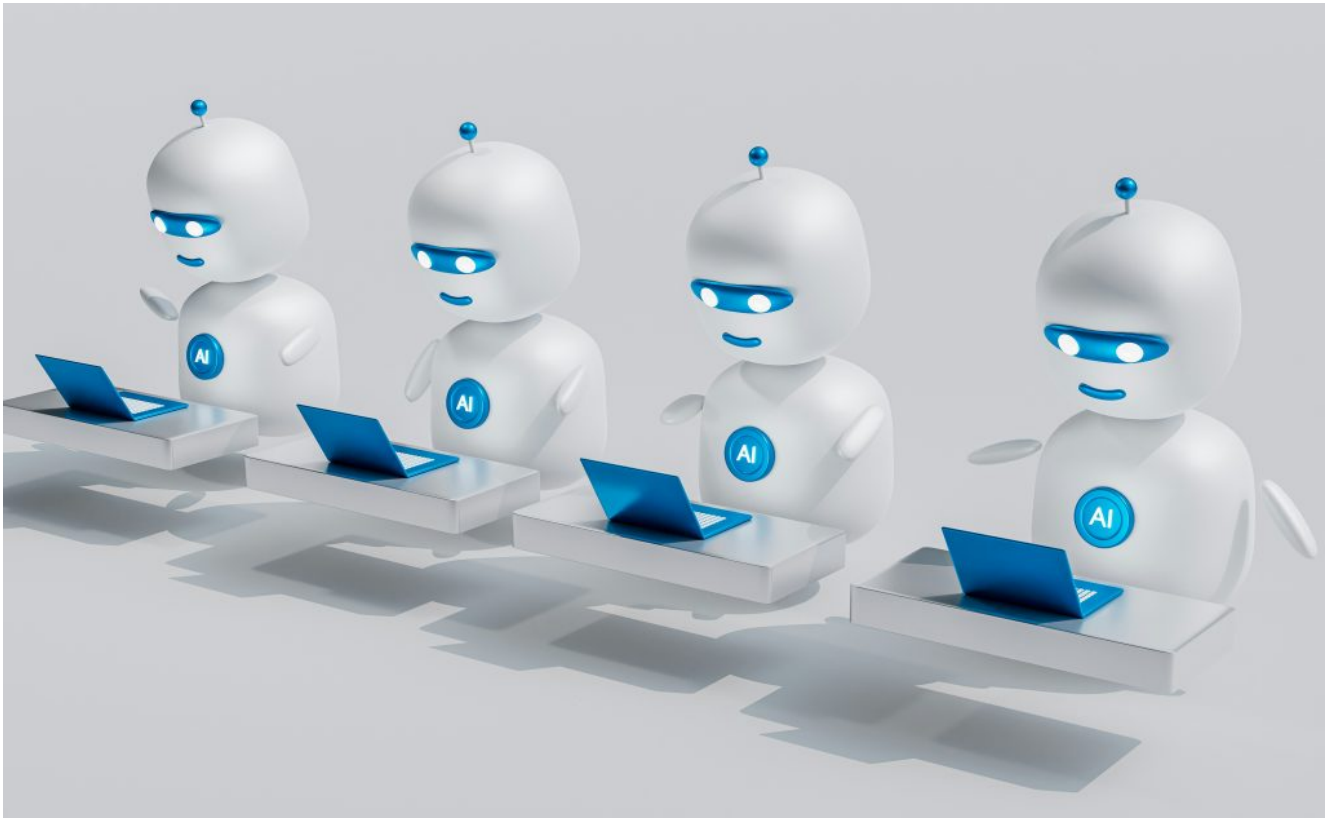
How AI Chatbots are Transforming Healthcare in the UK

In the past few years, AI and LLMs (large language models) have taken the world by storm. Chatbots are suddenly everywhere, from fast food drive-thru menus to cell phones and business websites. Multiple industries are being transformed by the advent of generative AI, and the healthcare industry is no exception. Recent advances in LLMs have brought a wealth of changes and benefits to the healthcare industry.

Machine learning is not terribly knew to the healthcare field, and the widespread embrace of AI is only part of a greater push toward more data-driven research and treatment, such as can already be found in such programmes as the Health and Social Care Data-Driven Innovation Programme in Edinburgh.

AI and machine learning have been playing a major role in healthcare for years. Doctors use AI to aid with diagnoses such as breast cancer detection, and stroke, as well as triage and complex tasks that would be difficult or impossible for human healthcare workers to accomplish.

But the most familiar and accessible example of AI at the patient level is the chatbot. Whether it's a rule-based chatbot designed to walk patients through a check-in or procedure, or a conversational chatbot that can mimic understanding of human language, chatbots have become a part of daily life in the healthcare industry.



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How Chatbots Are Used in Healthcare

First, let’s delve into how chatbots are most frequently used in the healthcare field.

First, there are the most basic tasks, the ones you might expect most:

- Providing basic information, such as the nearest medical provider or medical facility, operating hours, address, contact information, and so on.

- Appointment management such as booking, cancellation, etc. as well as patient onboarding procedures like filling out health information, questionnaires, or surveys. .

- Symptom checking, i.e. typing symptoms into a chat and letting the bot provide information about what those

symptoms might mean (not a meaningful substitute for a real diagnosis).

- Pre-procedure and post-procedure guidance, more interactive, informative and helpful than a mere pamphlet or easily forgotten verbal instructions.

- Important patient education such as disease management and prevention, which can be accessed any time and provide fresh and detailed answers.

- Integration with wearable devices such as Fitbit, Apple Watch, or similar devices, providing vital biofeedback and health coaching.

- Mental health support, such as NHS Limbic Access.

- Support for carers, such as the Brigit chatbot, which is centered on supplying vital information and resources for carers.

Although most people think of ChatGPT when they think of chatbots, there's actually a wide variety of AI chatbot software available, at a variety of costs and feature levels, to appeal to small businesses and practitioners and large healthcare organizations alike.

The Benefits of AI Chatbots in Healthcare

Now, let's talk a bit about the benefits AI chatbots bring to the table.

One of the primary ways chatbots make life easier – for healthcare workers and patients alike – is by reducing the

workload on the human workforce. AI can handle repetitive and simple queries and tasks much more easily and efficiently than human counterparts, which frees up human healthcare workers to handle more sophisticated and nuanced requests.

AI chatbots can also be available 24 hours a day, 7 days a week, needing no time off for weekends or holidays, which is a boon to users who might need information during off hours or days. This also adds up to cost savings for healthcare facilities, as there's no need for extra overtime or holiday pay to account for these patient needs.

Another major benefit to the use of AI chatbots is anonymity. Patients often have trouble asking sensitive or embarrassing health questions, even to their own trusted physician. A chatbot allows a patient to broach a sensitive topic without worrying about being judged by another human being – and may make it easier for them to bring up that subject with a human doctor.

Finally, and most importantly, there's the reality that an AI chatbot actually could save someone's life. If a patient asks a question about something time-sensitive such as a heart attack or stroke, the information they get could encourage them to contact emergency services or their physician before things get any worse.

The Future of AI in Healthcare

As technology develops, AI will no doubt grow more sophisticated and capable. New AI models can already predict diseases and complications using NHS data, and those models will only get better as they "learn" from collected results. Chatbots and virtual assistants will grow more sophisticated and lifelike as they gain complexity, and may eventually become all but indistinguishable from human interaction. While this carries its own risks and is cause for some amount of caution, the future of AI in the healthcare industry is a

bright one overall – and the world will certainly always need human healthcare workers.