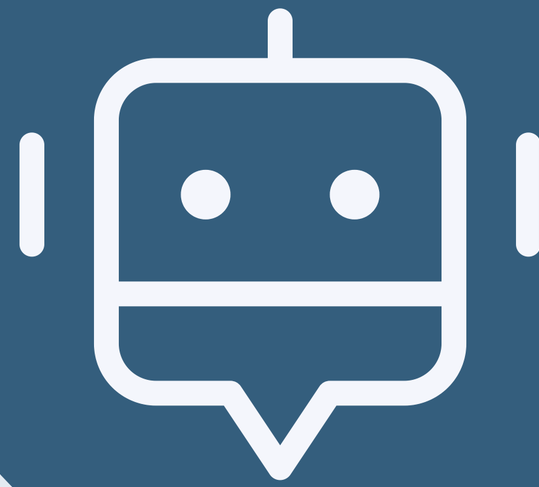

Health assistance Chatbot

study of the art and current situation.

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Presentation Agenda

I - Introduction

II - Overview of existing chatbots

III - Comparative review

IV - Conclusion

Introduction

The concept and importance of chatbots in health industry.

Introduction

The concept and importance of chatbots in health industry.

- **What is a Chatbot and how it works ?**

A chatbot is a computer program designed to simulate human conversation. It can answer user queries, provide recommendations, and automate tasks through text or voice interactions.

⚙️ How Does It Work?

1. Natural Language Processing (NLP) – Understands and analyzes user inputs.
2. Knowledge Base & AI – Uses databases and machine learning models to generate relevant responses.
3. Response Mechanism – Delivers answers using predefined rules or advanced AI models (ML, Deep Learning).

Introduction

The concept and importance of chatbots in health industry.

- **Why are Chatbots so important in heath industry ?**
  - 24/7 Availability – Provides instant responses, reducing waiting times.
  - Cost Reduction – Lowers operational costs by automating consultations.
  - Patient Engagement – Sends reminders for medications and appointments.
  - Faster Diagnosis – Helps analyze symptoms and guide patients.
  - Data Collection – Assists healthcare providers with insights.
  - Accessibility – Supports remote areas with limited medical access.

Overview of existing Chatbots

A list of some of the leading chatbots in health industry.

Ada Health

Ada Health is a Berlin-based digital health company founded in 2011 by Dr. Claire Novorol, Professor Martin Hirsch, and Daniel Nathrath. The company specializes in **artificial intelligence** (AI) and **machine learning** tools aimed at improving **healthcare** accessibility and outcomes.

reference : https://en.wikipedia.org/wiki/Ada_Health?

WebMD

WebMD's Symptom Checker is an online tool that helps users identify potential **health conditions** based on their symptoms. By selecting symptoms by body location or entering them manually, users receive a list of possible conditions and guidance on appropriate care options.

reference : https://symptoms.webmd.com/

Buoy Health

Buoy Health is a Boston-based digital health company founded in 2014. It offers an **AI-driven health assistant** that guides users in making informed decisions about their health and directs them to appropriate care options.

reference : https://symptoms.webmd.com/

Mediktor

Mediktor is an advanced **AI-based healthcare assistant** that utilizes artificial intelligence (AI) and natural language processing (NLP) to assess symptoms, provide pre-diagnoses, and guide users toward appropriate care.

reference : https://www.mediktor.com/en-us/company

Comparative Review.

Benchmarking of the listed chatbots.

Comparative analysis

Feature	**Ada**	**WebMD Symptom Checker**	**Buoy Health**	**Mediktor**
Ease of Use	Intuitive UI	×Overloaded UI	Guided navigation	×Complex interface
Language Simplicity	Clear terms	×Uses medical jargon	Simple explanations	×Technical terms
Input Flexibility	×Rigid symptom lists	Allows some free text	AI-based recognition	×Predefined options only
Engagement	Chatbot-based	×No chatbot	Interactive UI	×Limited personalization
Trust & Credibility	Sources cited	Backed by WebMD	×Limited transparency	×Unknown methodology

Key points of the comparative analysis.

- **Limited Input Flexibility**: Rigid symptom lists restrict user experience.
- **Weak Conversational Flow**: Many chatbots lack human-like interactions.
- **Low Personalization**: No adaptive learning or tailored responses.
- **Transparency Issues**: Unclear diagnostic reasoning reduces trust.
- **Accessibility Barriers**: Lack of language support and multimodal interaction.

Potential improvements

- **Enhance Input Recognition**: Implement NLP-driven free-text input.
- **Improve Conversational AI**: More human-like chatbot interactions.
- **Increase Transparency**: Explain reasoning behind medical guidance.
- **Personalized Tracking**: Store user history for tailored suggestions.
- **Expand Accessibility**: Add voice and multilingual support.

Conclusion

Conclusion

To bridge these gaps, CSC applications should integrate **natural language processing** (NLP) enhancements, improve conversational AI, and expand engagement and **accessibility features**. By addressing these limitations, chatbot-based healthcare applications can significantly improve user satisfaction, retention, and overall effectiveness.