



Transforming Dental Patients' Experience with An AI Chatbot

The Client

Our client, a leading dental clinic chain with over 50 locations nationwide, sought Veltris's expertise to transform their pre-visit process. The existing manual procedures for scheduling appointments and gathering patient information were inefficient, leading to time-consuming processes and patient dissatisfaction.

The Challenge

The development of a dental chatbot posed several challenges:

- » The time-consuming and labor-intensive process of collecting patient information and scheduling appointments required automation.
- » Patients faced extended waiting times on the phone without immediate access to answers, impacting overall satisfaction.
- » The clinic needed help with accommodating patient requests for appointments outside of regular business hours, causing patient dissatisfaction.
- » Different staff members collected patient information in varying formats, leading to data inconsistencies and errors.
- » Given the sensitivity of patient health data, ensuring HIPAA compliance was paramount. Our solution had to adhere to strict data security and privacy regulations.
- » The chatbot needed to seamlessly integrate with the dental clinic's existing appointment scheduling system, electronic health records (EHR), and website.
- » As the dental clinic was experiencing steady growth, the chatbot had to be scalable to handle an increasing volume of interactions and appointments.

Our Solution

Despite the huge number of challenges, our teams at Veltris analyzed the client's business and employed various AI technologies like Voice AI, LLM, and ChatGPT to develop an automated chatbot system tailored to the unique needs of the dental clinic.

- » Enhanced customer support with Voice AI for interactive query resolution. This also included LLM for understanding natural language, and Chat GPT for contextually relevant responses.
- » Enable voice-activated appointment scheduling, allowing patients to book or reschedule appointments effortlessly.
- » Created virtual health assistants using Voice AI for patients to describe symptoms and seek preliminary health advice.
- » AI implementation for patients to request prescription refills through voice commands.
- » Developed an interactive FAQ system with ChatGPT for conversational query responses.
- » Remote patient monitoring systems for capturing and analyzing health updates through voice reports.
- » Created health and wellness applications for personalized guidance.
- » Added features so the AI Chatbot could initiate and conduct telemedicine consultations.
- » Allowed chatbot to integrate with SMS/text messaging systems.
- » Deployed the chatbot on a scalable cloud infrastructure to accommodate an increasing volume of interactions and appointment requests.
- » The chatbot was made available 24/7, allowing patients to schedule appointments at their convenience, even during non-business hours.

The Results

- » **40% Reduction in Support Ticket Resolution Time**
Voice AI in customer support led to swift query resolution, while Chat GPT's contextual responses played a key role.
- » **35% Increase in Appointment Conversions**
Voice-activated scheduling contributed to a remarkable rise in appointment conversions.
- » **50% Boost in Patient Satisfaction Scores**
Virtual health assistants provided a significant increase in patient satisfaction, driven by accurate medical query interpretation and empathetic responses.
- » **25% Improvement in Medication Adherence**
Voice AI for prescription refills, supported by Chat GPT, resulted in a notable enhancement in medication adherence.

» **60% Reduction in FAQ Response Times**

Chat GPT integration in the FAQ system achieved a substantial decrease in response times, with Voice AI handling spoken inquiries through LLM.

» **30% Increase in Remote Patient Engagement**

Remote patient monitoring led to a substantial rise in patient engagement

» **45% Uplift in Positive User Feedback and App Adoption Rates**

Wellness applications infused with AI witnessed a significant increase in positive user feedback and app adoption rates

» **25% Higher Patient Participation in Telemedicine Consultations**

Implementation of Voice AI in telemedicine resulted in a 25% increase in patient participation.

About Veltris

Veltris specializes in Data & AI, Engineering R&D, and Digital Product Engineering. With a global presence, we deliver comprehensive solutions from "chip-to-cloud," supporting both SMBs and Fortune 500 clients. Our design-centric, full-stack development approach ensures that we provide end-to-end support from consulting to deployment.

For more information, visit [Veltris.com](https://www.veltris.com).