AI Agents for Healthcare

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Introduction

The healthcare industry faces the dual challenge of providing high-quality care while managing the increasing demand for services. Customer service in this sector is exceptionally demanding, requiring efficiency, accuracy, and empathy under pressure. Additionally, rising customer expectations, increasing churn rates, a growing labor gap, higher inquiry volumes, and stagnant KPIs add to the complexity.

The healthcare industry is also undergoing rapid digital transformation with trends like wearable devices, patient apps, self-service, and telemedicine. However, it's also challenged by misleading information from various websites where every symptom points to a rare, incurable disease.

The truth is, whether we're speaking generally or about healthcare, there's simply no future in which customer service becomes simpler, demand goes down, and technology decreases. The good news, however, is that AI can now deliver on promises that were premature in the past, assisting patients and staff all the way from making appointments to post-discharge care. Today, we're serving the connected patient.

AI can and will handle the repetitive, administrative work, which the healthcare industry has in abundance. Humans, on the other hand, can focus on complex cases and provide the human touch with the emotional intelligence and common sense that is often missing in most services. Here's how we get there.

What are **AI Agents**?

An AI Agent is simply a useful metaphor for a cutting-edge AI-based software solution. They are designed to interact with customers and human agents in a natural, human-like manner and ultimately get things done. They consist of two main components:

Conversational AI:

This allows the AI Agent to engage in real-time dialogues with users. It understands user inputs, processes them, and responds in a way that mimics human conversation. Conversational AI is adept at understanding context, managing multi-turn conversations, providing service across multiple channels, even within the same conversation, and providing relevant responses. Critically, it is integrated into your backend systems and can actually get things done, i.e. carry out service processes either partially or end-to-end.

Generative AI:

While Conversational AI provides the business logic, structure, and guard rails, Generative AI produces unique, contextually relevant content on the fly. It's not limited to pre-programmed responses but can generate answers, solutions, or even create content. With Conversational AI being the first and only layer the customer interacts with, it can curate responses and use specific prompt templates to ensure consistent performance from the LLM, without hallucinations or other risks.

Together, these technologies empower the AI Agent to deliver a seamless, personalized, and efficient user experience. Whether it's answering queries, providing support, or guiding users through complex processes, an AI Agent powered by both Conversational and Generative AI ensures all customer interactions are fluid, relevant, and indistinguishable from their human counterparts.

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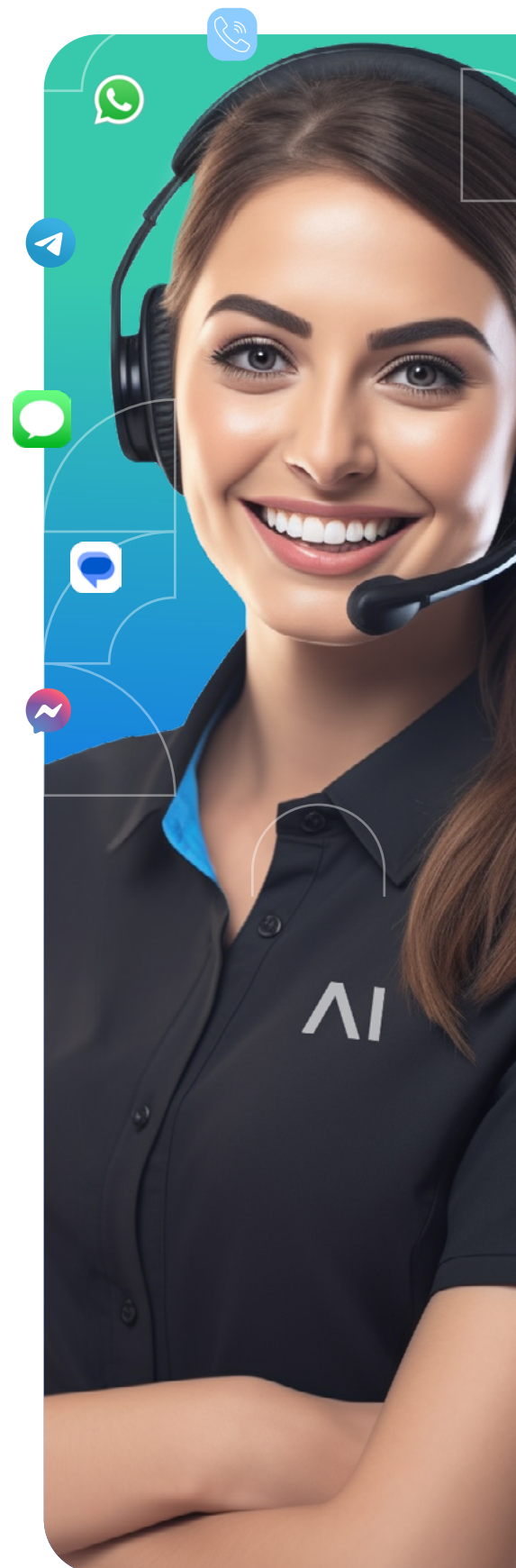
What AI Agents Do

- Close the gap in qualified staff
- Tackle narrowly scoped tasks
- Perform specific tasks well, over and over with zero attrition
- Increase overall automation rate
- Reduce costs
- Reduce tier 1 and repetitive tasks for human agents

What AI Agents Don't Do

- Replace people, in fact they're needed more than ever, and for tier 2 help
- Replace your customer experience with technology
- Require benefits or expensive training
- Get tired of repetition and experience burnout
- Require technical skills or development from you
- Hallucinate and make up answers
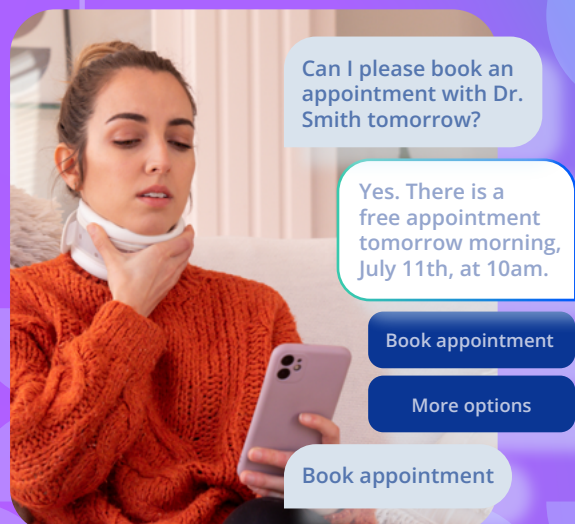
What Can AI Agents Do For You?

Work along-side Human Agents

Handle Voice & Chat in 100+ Languages

Know your Processes, Products, Services & Customers

Can I please book an appointment with Dr. Smith tomorrow?

Yes. There is a free appointment tomorrow morning, July 11th, at 10am.

Book appointment

More options

Book appointment

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Why **AI?**

The healthcare market will continue its shift towards digitalization because, while the topic may be different, it stands to benefit for many of the same reasons as other industries. Healthcare is rife with rigidly defined standardized processes and no shortage of record-keeping requirements. In addition, the doctor-patient relationship is still driven by legacy technology and processes such as phone calls and in-person appointments. AI provides new opportunities to assist both medical and administrative staff, reduce human error, and provide better patient services.

In the era of the connected patient, healthcare both needs and is expected to be where the patients are. You may not be able to build a hospital or specialist practice in every town and village, but you can be available 24/7 anywhere there's cell phone reception.

There is no magic solution to all the industry's problems, but AI Agents are part of any solution.
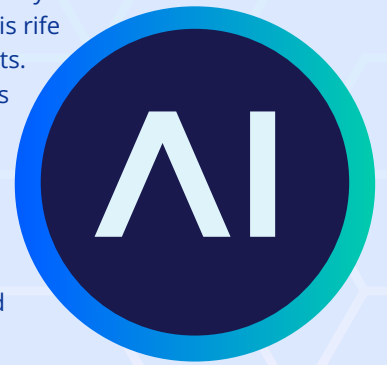
Why **AI Agents?**

Moving forward, why should you hire AI Agents? First, ask why you hire humans. Is it to perform manual, low-value repetitive tasks? For many organizations, the answer is yes, but it shouldn't be. AI excels at handling high-volume, low- and medium-complexity repetitive tasks. Humans excel at high-complexity tasks, edge cases, and those requiring emotional intelligence. Here are some reasons the healthcare industry is turning to AI Agents:

Close the labor gap in contact centers

Reduce the burden on the administration

Improve patient service accessibility

Reduce labor costs from overhiring due to inefficient operations

Increase customer satisfaction metrics

Handle the same or rising inquiries with the same staff level
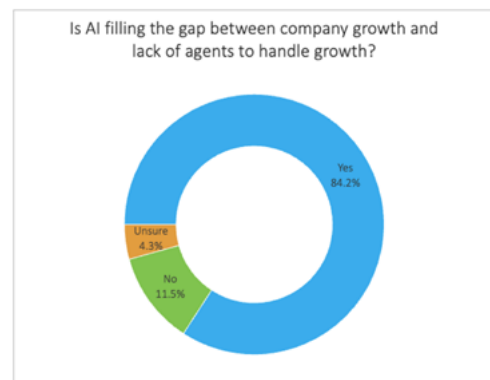
Let's look at a few in more detail.

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Filling the Labor & Skills Gap

The labor pool for contact centers is limited, creating problems filling seats. Additionally, churn is increasing, reaching 31% in 2024 according to Metrigy's research. It's challenging to find skilled labor for jobs with privacy and regulatory requirements. We have fewer potential hires with lower skill levels while existing agents quit more often.

AI Agents are the only sustainable solution for filling the gap created by company growth and higher inquiry volumes, combined with higher churn and a smaller labor pool. AI Agents can immediately take over high-volume, low-complexity tasks, reducing the agent workload even via partial automation.

They're online 24/7/365 in any language and on any channel. In large metropolitan areas, their multilingual abilities are invaluable, as hospitals often need to be able to serve patients in over a dozen languages daily.

Gap Between Company and Agent Growth Trajectories

Company growth

Agent growth

Is AI filling the gap between company growth and lack of agents to handle growth?

Yes 84.2%

Unsure 4.3%

No 11.5%

AI Filling Gaps in Company Growth and Lack of Agents

Source: Metrigy Research Corp

Case Study   Fortune 100 Insurer

Challenge:

Receives 90 million phone calls/yearly in 70+ countries

Solution:

AI Agent automates 95% of ID&V. Saves 1.5 minutes on every call with 99.7% intent recognition accuracy

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Improving Agent Experience & Reducing Churn

With labor difficult to source, AI Agents can not only close the gap but also help to prevent it from appearing in the first place by reducing churn. Here are a few examples:

Agent Challenge	How AI Agents can Help
Excessive service requests	Increase containment rate via self-service and automation
Intense workload	Fully and/or partially Automate Tier 1 requests
Tool/App overload	Streamlined workspace with Agent Assist proactively pulling info from other systems so that agents don't have to
Manual post-call work	Automated summarization & case creation using transcript and CRM data.
Complex processes	Simplified digital processes via modeling and automation with AI
Information overload	Real-time monitoring with proactive knowledge lookups, suggestions, and processes via AI

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4 ways AI Can Assist Healthcare Staff

Agent Assistance for Office Staff

1

Conversational AI acts as a virtual assistant, handling routine inquiries via self-service, routing calls, and providing information. This allows staff to focus on complex tasks, improving efficiency without needing additional hires.

Automating Repetitive Tasks

2

AI automates tasks such as appointment scheduling, patient queries, claims billing, and data entry. This frees up healthcare staff to focus on patient care, reduces errors, and improves job satisfaction.

Automated Wrap-Up and Summary

3

AI generates wrap-up notes and summaries after patient interactions, saving time and ensuring accurate documentation. This improves continuity of care, reduces administrative burdens, and helps digitize and structure information long-term.

Improving the Connected Patient Journey

4

Legacy technology in healthcare increases costs and inefficiencies, limiting patients' access to information and care. Patients expect digital solutions for many interactions, similar to their general consumer expectations. While some healthcare areas require face-to-face interactions, many do not. AI can bridge this gap, providing the information and care patients need digitally.

Overall Benefits of **AI Agents** in Numbers

Easy to scale

Can handle millions of calls per year

Assist Agents 24/7

Supports every agent on any channel 24/7

Multilingual

Able to understand and speak 100+ languages

Quickly deployed

Task-specific agents can be implemented and go live within weeks, not months

Personalized & Contextual

Can deliver contextual and personalized service using natural language

Reduce AHT

Agent assistance and even the partial automation of requests consistently reduces AHT at scale

Improve AX

AI Agents shoulder the burden of tier 1 requests which human agents hate, and assist agents in every interaction.

Deliver Knowledge

Use Generative AI and vector search to deliver instant, natural answers on any channel

+30%
CSAT improvement

15%
Shorter average handling time (AHT)

99.5%
faster response time

A recent 2023 report on the impact of Conversational AI in the contact center paints an even clearer picture:*

93% found that AI helps resolve customer issues

87% reported that AI reduces effort for agents

74% said that AI increases revenue

AI-Powered Customer Service Processes

Qualify
The AI Agent qualifies the incoming call

Identify
Identifies the caller

Resolve request
Hands the call over to a human agent

Wrap up
Wraps up the call and creates detailed logs

* Source: 2023 "State of Conversational AI in the Contact Center Report" by 8x8

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Case Study: Virgin Pulse

With over 18 million members across 190 countries Virgin Pulse is a Global health engagement company that empowers members to get and stay healthy while helping organizations optimize investments in their people.

Virgin Pulse offers worldwide service on three support channels – email, phone, and chat. They initially relied on a keyword-recognition bot to provide customers with FAQ answers to common questions, reaching a containment rate of just 3%. They decided to replace it with a fully trained AI Agent based on these key requirements:

☑ **Integration with Zendesk LiveChat and providing a warm handover without using third-party links to other pages**

☑ **Offering great UX with easy and intuitive navigation and dialogues**

☑ **Deployment in four separate areas, offering the same features and services everywhere**

Virgin Pulse implemented a fully automated AI Agent to provide personalized answers based on user intent, sourced from articles on the Zendesk Help Center. Their approach ensured hands-off maintenance, orchestrated through automated pipelines that fetch, convert, and upload new articles from Zendesk. Comprising 29 different topic areas, the AI Agent achieved an average accuracy score of 97%. Additionally, the AI offers ticket creation and seamless transition to live agents. They also utilized the power of generative AI (GPT-4) for design and training.

Results

In just over a month, the AI Agent solution implemented by Virgin Pulse achieved a containment rate of approximately 40%, more than a 10x increase compared to the previous solution. User sessions doubled from 12,000 to 30,000, indicating a rapid rise in popularity and self-service efficacy.

For their well-trained AI Agent and efficiency gains in just one month, achieving a clear ROI in a short time, Virgin Pulse won the Newcomer Champion Award 2024 at the Cognigy Awards.

> Cognigy is integral to maintaining our exceptional service across all channels, making it a critical part of our infrastructure.

**- Antonio Dujmovic
Manager, Engineering
@Virgin Pulse**
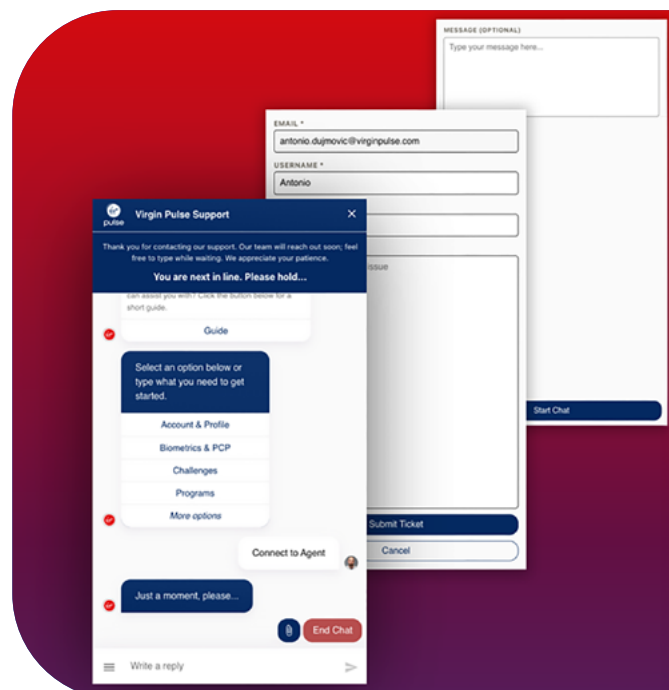
Watch Virgin Pulse presentation at CXS2024:

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Conclusion

There's no shortage of reasons to try AI, but the most important one is this: it's an indispensable part of your customer experience infrastructure, like your CRM, case management system, and CCaaS. Period.

With increasing inquiry volume, complexity, and customer expectations, combined with a labor shortage, AI is the only sustainable way to scale and meet these challenges long-term. If AI still feels too new, consider whether you could still manage customer data in Excel versus a CRM. How much longer could you sustain that before collapse, and how would you justify that choice today?

It's imperative to treat AI as a pillar of your long-term customer service strategy, not a short-term tactic or band-aid. AI Agents are here to stay and will soon be a standard expectation. You don't need to invest a fortune and tackle everything at once. AI Agents allow healthcare companies to skip complex projects in favor of ready-to-deploy solutions. They can quickly address specific use cases, see ROI faster, and sustainably deliver better customer experiences across every channel.

You could wait, but if you choose to do that then I have a black-and-white television with rabbit ears that you might be interested in.

To learn more:
Visit **cognigy.com** and book a free demo today!

Attract Customers

Increase Retention

Faster ROI

Better CX

Redefine What's Possible with AI Agents

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