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CLIENT CASE HOMESERVE

Artificial Intelligence Applied to the Insurance Sector: **The Future of Contact Centres**

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HomeServe is an international group based in the UK, world leader in home services for 26 years: present in 6 countries, with 15M assistance contracts and 6 000 employees, it is a constituent of the FTSE 100 Index. In France, it has been the leading service company in its market for twenty years. Its goal is to make home repairs and improvements easy through assistance and maintenance policies to anticipate and fix issues as well as on-demand services for common small repairs on a dedicated platform. HomeServe stands out and received many awards for its customer service and its quality of life at work. It currently has over one million customers and an impressive retention rate of 89%.



• Introduction

How was HomeServe able to use Speech Analytics to improve customer experience and boost business performance?

In a live broadcast **Mickael LOREAU** (Innovation & Products Director, HomeServe), **Matthieu MYSZAK** (Data Consulting Director, Artefact) and **Hanan OUAZAN** (Director - Data Science VP, Artefact) spoke about the Artefact-HomeServe collaboration on the subject.

A – Improving Phone Channel Efficiency Through Voice Data

Mickael Loreau first introduced HomeServe, the world leader in home services for 26 years: present in France for twenty years.

“Studies show that when dealing with home emergencies, “voice” is the customer’s preferred channel.”

Historically, as demonstrated by the company profile, being reachable using this channel has been paramount for HomeServe. According to Mickael Loreau, this has always placed contact centre activities at the core of every step of the value chain, from sales to customer service and ultimately assistance.

“Today, Artificial Intelligence (AI) represents a tremendous opportunity in terms of value and efficiency for contact centres.”

Matthieu Myszak then detailed three AI-powered solutions for contact centres. **Speech analytics** explore past conversations to recommend curative measures, increasing service quality and satisfaction. **AI coaches** help agents answer requests, decreasing average handling time. **Automation streamlines** first level support and pre-qualifies complex requests for a faster and more relevant human support, enabling collaborators to focus on high added-value tasks.

HomeServe Innovation Factory has already developed AI-based conversational solutions (the award-winning Chatbot Tom started in 2017), which led to a growing emphasis on voice-enabled virtual assistants. HomeServe has been present on Google Assistant and Amazon Alexa since 2019, with new content being launched on these platforms in 2020. Still, Mickael Loreau insisted on the fact that **the most common channel used by customers remains the phone:**

“ We asked ourselves a new question. How can AI improve efficiency in our existing phone channel? We were particularly curious about the impact of speech analytics: we had all this data which was not really being put to use. ”

Mickael LOREAU - Innovation & Products Director, HomeServe

Which is why an initiative was set in motion with Artefact, exploring AI applications when handling calls. Hanan Ouazan described Artefact’s fundamentals with a focus on its data for operations services, to explain how the company was able to help HomeServe make a pivotal choice. This transformation journey would have a clear “make” over “buy” strategy.

“ Only a proprietary company asset could harvest the vast range of uses. Not because we are in love with complex technical solutions, but because to be effective a solution needs to be tailored to the organisation, around a synergy between technology and skills. ”

Mickael LOREAU - Innovation & Products Director, HomeServe

This meant building a dedicated voice data section within a **new internal data platform**. More specifically an **agnostic architecture**, to guarantee future independence from external providers. The platform would handle multiple subjects and use cases while leveraging **best-of-breed algorithms**. Internally, expertise would be developed around understanding natural language, data science algorithms and AI data-treatment technical structures.



B – Proving the Value of Speech Analytics While Building Perennial Technological Foundations

This would be achieved through a **minimum viable product (MVP)**, able to expand after its validation with business experts. Matthieu MYSZAK described how, within a four weeks period, several assessments were conducted: **technology maturity**, value and feasibility of **relevant use cases**, and **improvements to customer experience and efficiency**. Working with business and IT departments across the two companies, a joint workshop prioritised two high-value use cases.



FIRST refining the **understanding of customer contact root causes**. A data-driven analysis of inbound calls topics and sub-topics, detecting irritants within conversations, flagging potential opportunities for cross or up-selling, and identifying operational optimisations.



SECOND **detecting risks of non-compliance within sales calls**. AI would prefilter risks to be manually controlled. This would in turn maximise the added-value of compliance teams: able to focus on specific calls flagged by the AI, they would not waste time on reviewing perfectly fine calls which are always included in non-sorted random samples.

To build these, a long-term multidisciplinary team was set up across HomeServe and Artefact. Key success factors would be **collaboration**, to ensure actionable and scalable use cases; **skills transfer** from Artefact to HomeServe, to guarantee the future autonomy of its solution; **and agility**, to ensure high-value development for business teams and to react to technical difficulties, through the SCRUM methodology:

“ These interactions on a daily basis between all stakeholders were fundamental to deliver what was expected. During these times of lockdown, with everyone working from home, they helped spread a sense of common ownership: core data, business and IT people from both companies having direct lines to each other. ”
Matthieu MYSZAK - Data Consulting Director, Artefact

Hanan Ouazan further described several **microservices** developed for **data collecting** with Google Cloud Platform **and processing** using open-source solutions, to build the initial two use cases first, with a strong focus on future development. In other words, the ability to tackle further use cases and to be used throughout the organisation should the MVP phase prove successful.

A combination of **open-source algorithms** drew and structured **insights from transcripts** generated with Google DialogFlow (topics, sentiment detection and sales attempts).

For **topic modeling**, a semi-supervised approach guaranteed the **business actionability of insights**: unsupervised algorithms extracting topics, reviewed with business experts to define actionable and missing ones, then fed back to said algorithms.



C – Detailing Actionable Insights for HomeServe on Contact Reasons and Non-Compliance Risks

For Mickael Loreau the initial phase of the project and Artefact’s work was a resounding success:

“ The main result for me is the evidence that the technology is mature. Of course it’s not magical and needs human input, but it is business ready. And it has very tangible immediate consequences: concretely, contact centre agents welcome a less tedious workload alleviated by quicker topic classification. ”
Mickael LOREAU - Innovation & Products Director, HomeServe

On customer contact root causes, three main actionable items were produced.

Topic classification (5 data-driven topics and 23 sub-topics) opened the possibility to improve interactive voice response and routing processes, while enriching customer relationship management data.

Sentiment analysis was able to sort each call into 4 levels of satisfaction, identify main dissatisfaction factors and flag measures to improve customer care quality.

Cross-sell potential analysis of each sub-topic allowed for a better exploration of opportunities and conversions within calls.

“ The proof of concept demonstrated that AI can be leveraged to better guide the work of compliance teams. ”
Mickael LOREAU - Innovation & Products Director, HomeServe

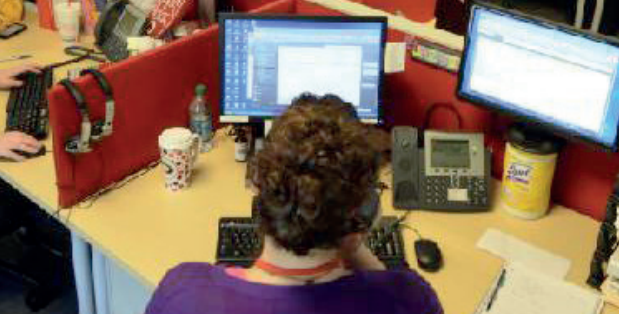
On non-compliance detection in sales calls, a risk evaluation was conducted. This produced a percentage of calls with a compliance risk detected per criterion, useful to refine and better direct the teams’ work. It also showed Google speech to text (STT) performance still needs to be improved before considering automating this task fully.

D – Building on the Foundations: Further Developing Speech Analytics and Real-Time Coordination

Speech analytics: the MVP demonstrated a real business potential to be developed. The blueprint to follow now shows a need to bear it out: a formalised analysis will detail not only tangible benefits but also costs, to confirm long-term investments. In the background, Artefact and HomeServe teams are already working on means of optimising STT performance to enable more advanced use cases.

Real-time use cases: at first 2-3 new directions will be confirmed with management. Based on these goals, the already developed architecture will be adapted to enable real-time coordination. This will be possible thanks to the perennial aspect embedded into the initial phase.

The relationship Artefact-HomeServe seems to have smoothly developed into a symbiosis, destined to continue producing leading AI transformations.



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About

Artefact is a next-generation data services company, specialising in data consulting and data-driven digital marketing. We're dedicated to transforming data into business impact.

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