



Impact on Tier 2 Escalations

in a Global Contact Center After Introducing an NLP-based Search

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Objectives:

This study aims to objectively assess the impact of introducing a search supported by Artificial Intelligence (AI), specifically Natural Language Processing (NLP), in the day-to-day operations of a Global Medical Information Contact Center.

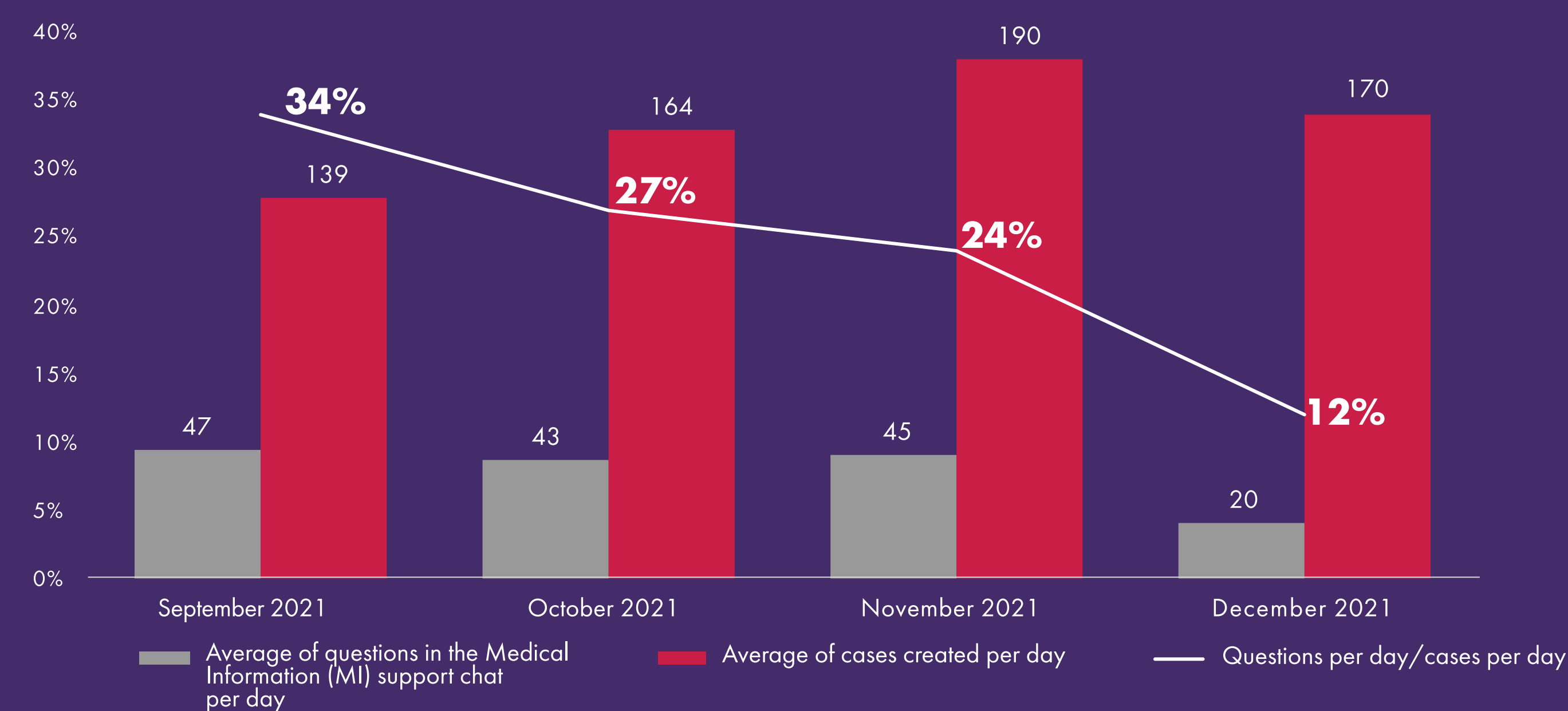
Methods:

Data collection began September 2021, before the NLP search tool was launched, and continued through December 2021 within a global medical information contact center. Data structure included daily categorization of questions asked by contact center agents in the general support chat. Implementation included daily categorization, review, and tier 2 escalation counts by a team of 4 agents assigned to the task in the general tracker. CRM data extraction related to the volume of monthly cases was performed by the project manager. The indicator used was the number of questions escalated to managers against the total number of cases created in the same period.

Results:

A NLP search was launched within a global contact center on **October 12th, 2021**, and contained **206** content pieces related to processes and documentation best practices to be followed in the contact center. Data gathered from a backstage reporting tool between **November 15th, 2021**, and **January 16th, 2022**, included **4643** sessions with **6351** questions entered by contact center agents resulting in an average of **101 questions per day**. Feedback related to the content was collected and analyzed, yielding **365 ratings**. Of these ratings, **63.8%** were positive and **36.2%** were negative. Negative ratings were analyzed and categorized into actionable (**42%**) and non-actionable (**58%**).

Number of Cases Escalated to Tier 2 - Four Month Data

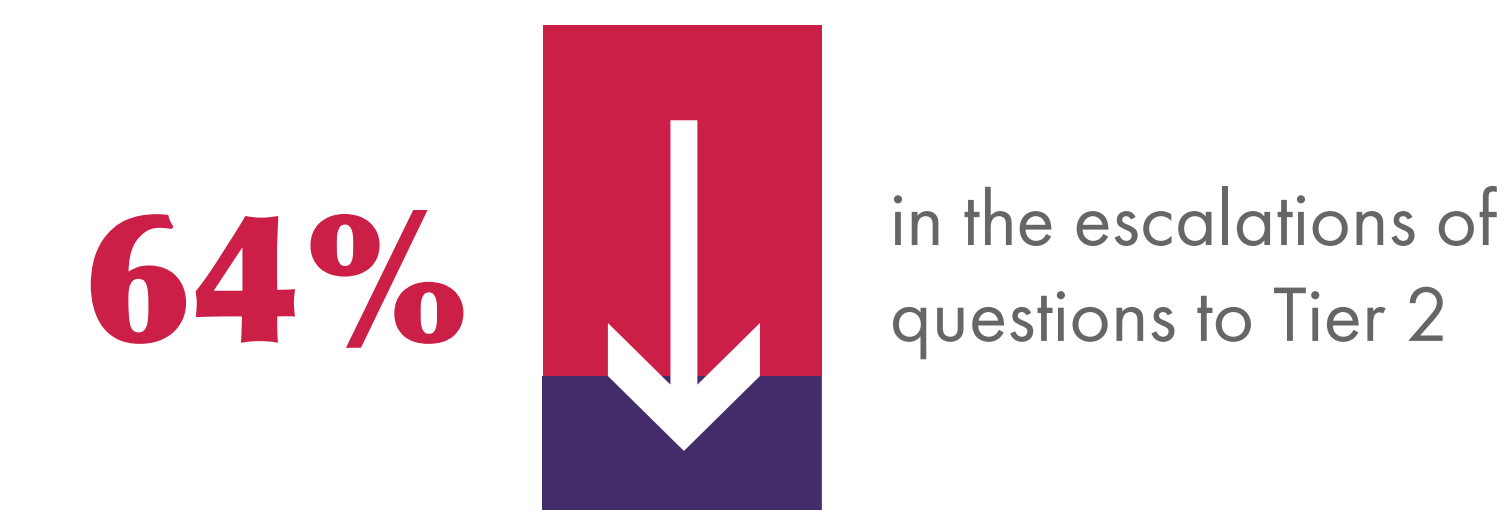


Based on the feedback analysis and new procedures to follow, the content was continuously reviewed on one side based on the feedback analysis and on the other side, due to alterations in processes in the ways of working within the Contact Center. During this period, 18 new pieces of content were implemented, 12 pieces were updated, 12 pieces were improved, and 2 pieces of content were suspended.

Over the course of 4 months, the number of questions escalated to tier 2 by the contact center agents was measured. Data related to the number of cases created in the same period were extracted from the CRM software. After implementing the NLP search, there was a **decrease of 64% in the escalations of questions to Tier 2 per day**.

Conclusions:

Contact center professionals continuously need fast and accurate access to the most updated information, and they are willing to use new technologies to find the information needed. NLP-based search tools can significantly upgrade a typical keyword search and have the potential to support user-intention, improving the user experience and efficiency of the contact center. The impact of introducing a web-based knowledge hub linked to a search powered by NLP contributed to...



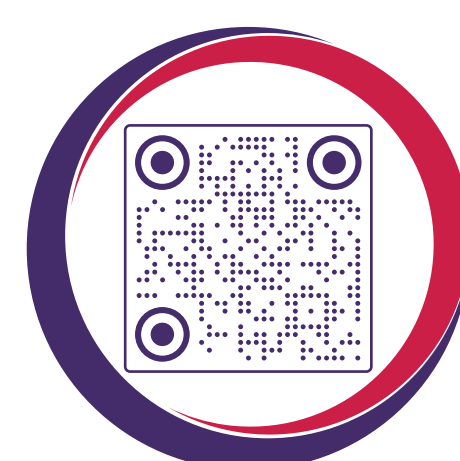
The impact of the NLP-based search tool on daily activities of the contact center can be translated into:

1. Faster customer request handling and documentation;
2. Optimization of time management of Tier 2 managers being released to handle higher-value tasks;
3. Higher consistency of customer request handling and documentation due to the availability of "one source of truth"; and
4. Backstage analysis of question content allows for more efficient training and coaching. Based on the data collected, implementing a search solution using NLP increases overall efficiency.

Disclosures:

Author(s) of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation:

- Sandrina Clemente, PharmD MSc: Alphanumeric Systems, Inc.
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Footnotes: AI - Artificial Intelligence; NLP - Natural Language Processing; CRM - Customer Relationship Management; MI - Medical Information
Support Software: Microsoft Teams, Microsoft Excel and Salesforce CRM.

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