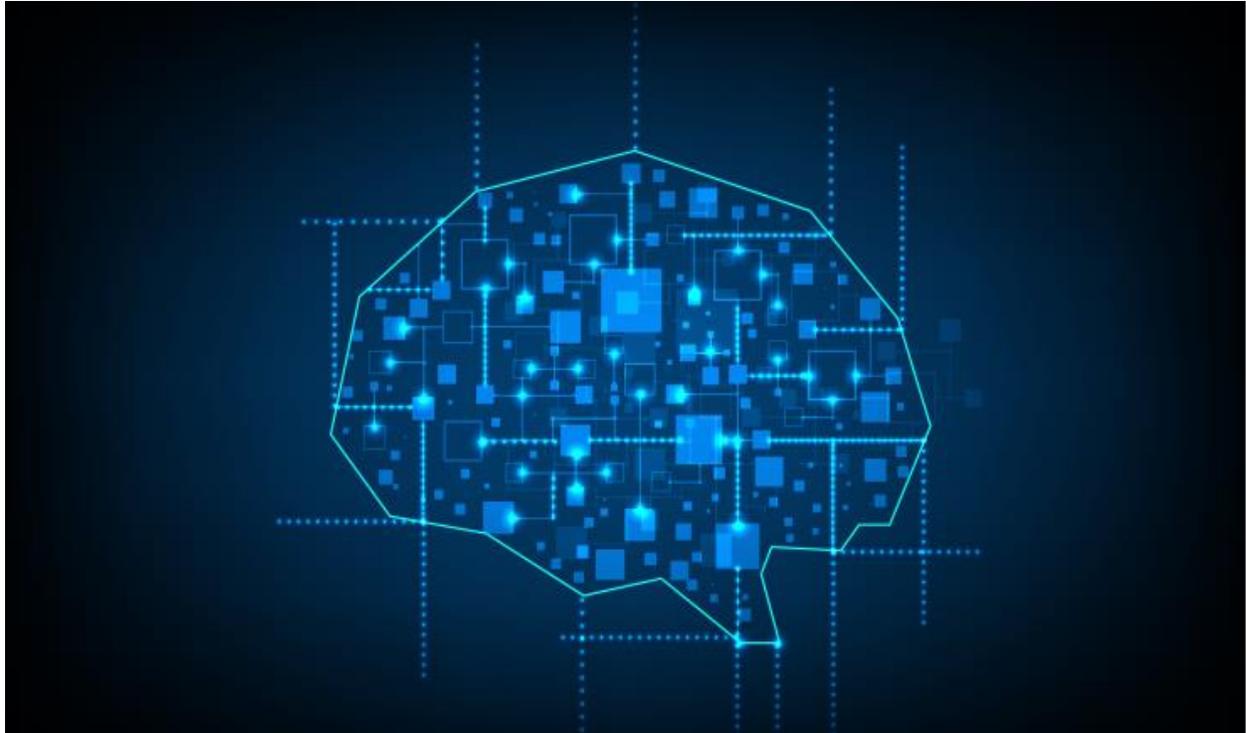

NEXT BIG WAVE

CUSTOMER SERVICE INDUSTRY



IIM BANGALORE

TEAM 7

KALA RUBINI

RAJAKUMAR S

SHRIRAM K

CUSTOMER SERVICE INDUSTRY

Automation due to the advancement of machines started off slow: with the usage of machines to do repetitive work that did not require heavy human guidance. Now with the advent of AI, automation has now got a whole new meaning with the machines these days being given the capability to think and handle tasks. Even though Artificial Intelligence currently does not seem to portray a major threat to any industry, it is nevertheless moving steadily in this direction and several major industries will soon see a huge overhaul in terms of human resources, employment, organizational structure because of this. Out of these industries, the one that would be seeing the biggest transformation is the Customer Service Industry.

AI - INDUSTRY RELEVANCE

A Customer Service industry consists of primarily the following elements

- Customer
- Agent

The advent of AI has impacted both the important elements of this industry as follows:

THE CUSTOMER

The customer can now get a quicker solution to his problems and solutions of higher quality and greater accuracy can also be provided to them, by routing the query to the right agent by the bots. The success of the technology for the customer can be measured in terms of reduction in customer effort, lower customer attrition & increased satisfaction.

THE AGENT

The agent is now more capable of providing the solution that the customer wants either quickly through the bots or accurately post routing. This causes the agent to become smarter (both the bot and the human agent) and gain knowledge over time, thus improving the accuracy in their response. The success of the technology for the agent can be measured in terms of lower cost per incident ticket, high levels of customer service satisfaction, low operation costs, better business and higher revenue

WORKPLACE PRACTICES IN TIMES OF AI

With the advent of AI, the Workplace will become a place of increased interaction between man and machine. The new emphasis will change the daily practices in the workplace. New practices will evolve from the impact on productivity, efficiency and cost savings that AI can provide. Humans will increasingly compete with AI. With the increased conversation, non-value adding human activity (Eg. Chatting, coffee breaks) will increasingly become scrutinized on a cultural level.

CREATING COMPETITIVE ADVANTAGE

The success of any company hinges on the company's ability to satisfy its customers. All companies identify this need and compete rigorously on the same dimension. This creates a positive pressure in the

competitive market to quickly adopt innovations and technologies to enhance their product & customer satisfaction. The adoption of AI is thus viewed as a source of differentiation.

INDUSTRY PAIN POINTS

- Ensuring that the customer service is consistent across all the channels in which the service is being provided.
- Having the right and accurate answer to every question that the consumer has.
- Using the right technology to improve customer experience during grievance redressal.
- Knowing when and who to transfer the call or conversation to, to better address the problem at hand.
- Bulk handling of calls effectively during times of crises
- Lack of skilled customer service professionals

TEAM COMPOSITION & FUNCTIONALITY

In the Customer Service industry AI finds its primary usage in two ways when it comes to roles that are currently being handled by humans, that can be handled by machines instead:

1. Front-end bots, that are powered by AI
2. AI assisted human agents

Front end bots

These front-end bots do not require human intervention of any sort and can single-handedly handle queries which primarily for FAQs (Frequently Asked Questions), i.e. queries at the first level. The responses to most of these queries are automated. These bots are known to handle almost up to 2million queries per day. The advantages of using such bots are the following:

- Reduced Handling time of agents
- Reduced First Contact Resolution rates
- Reduced training time of agents for low level tasks that barely require any human intervention and can instead be handled by bots themselves
- Reduced escalation of issues to higher level support that incurs more cost

AI assisted human agents

This model, also known as human-in-the-loop involves humans using the assistance of AI to answer customer queries. In this, the AI analyses the conversation with the customer and suggests the agent as to what answers he/she could possibly give. This is much faster than the traditional method, where the agent must consider his personal knowledge pool before answering the query. With the assistance of AI, the agents just must edit an answer that's already pre - strung by the AI, which gets more and more refined and to the point as it learns from each customization the agent makes to a query over time.

Advantages of using AI assisted human agents

- Reduced customer waiting period
- Increased response time
- Improved customized answers over time
- This model can be used to route voice calls as well (Voice Biometrics)

Team Composition	Without AI	With AI
<i>Team Size</i>	14	10
Number of Humans	14	4
Number of Front end bots	-	3
Number of bots involved in Human assistance	-	3

It is expected that the Team will continue to operate at a very high efficiency with AI and assistance bots than with an all-human team.

EVALUATION CRITERIA

- Number of queries handled per day
- Number of queries effectively resolved
- Daily customer tickets target (if exceeded/achieved/not)
- Customer Satisfaction level
- Customer Waiting time
- Query Response time
- Error ratio
- Number of resources used for processing a query

EMPLOYMENT & RE-SKILLING

Such uses of bots in both text and voice based customer service shows that there will be clear reduction in the number of human resources that will be employed in a service industry. Due to this the new form of employment would mostly consist of a reduced number of human resources and increased installation of the AI layer and bots for automation purposes. Even if the near-complete replacement of humans by machines is still a long way ahead, an employee who is keen on retaining his career for the longer term must start working on his/her skills. He/she must analyze and arrive at learning skills that are less likely to be affected by automation and move away from tasks that are likely to be automated. The major tasks that fall in the latter category are administrative and low-end maintenance tasks such as customer support. The skills considered to be less likely replaceable are creative thinking, judgement skills, empathy and attitude of collaboration. In a service sector, reskilling for survival can involve improving skill of making better judgements, analyzing data to better understand the customer & the problem at hand, empathy towards customer issues and hence provide better customer satisfaction.

VALUE PROPOSITION

The application of AI in the customer services industry as discussed provides the following terminal value:

At a reduced operating cost, the application of AI in customer service can provide productivity boost & higher customer satisfaction, thus ensuring customer loyalty