



# Proactive engagement: The missing piece in appointment scheduling technology



# Introduction

While artificial intelligence (AI) is usually marketed as the technology to provide the step change in the way we conduct our lives (think self-driving cars), its true beauty lies in the fact that mundane everyday tasks – those that may be supremely complex, but rather tedious and inefficient for the average human – can now be automated. The low hanging fruit on this tree is particularly bountiful. Take for example the number of appointments required in any given year; everything from car servicing, dentist appointments, broadband installation, kids' piano lessons. According to research, the average person will spend nearly 43 days of their life waiting on hold <sup>1</sup> and that's even before talking to the correct person and attempting to resolve your issue.

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1. <https://www.prnewswire.com/news-releases/hold-up---more-than-80-percent-of-people-are-put-on-hold-every-time-they-contact-a-business-188032061.html>

Being able to keep track of everything one MUST do, plus the activities consumers WANT to do (eg. book restaurant reservations, theatre tickets, vacations), takes a tremendous amount of focus for the individual and you can't help but wonder if you can make people's lives a bit easier by proactively automating these bare necessities. It may not be futuristic robot butlers, but the time and the associated mental effort that can be saved is invaluable.



### Context is king

As ever, definitional differences rule the roost so we should ensure everyone is on the same page with regards to what AI means in the context of customer service.

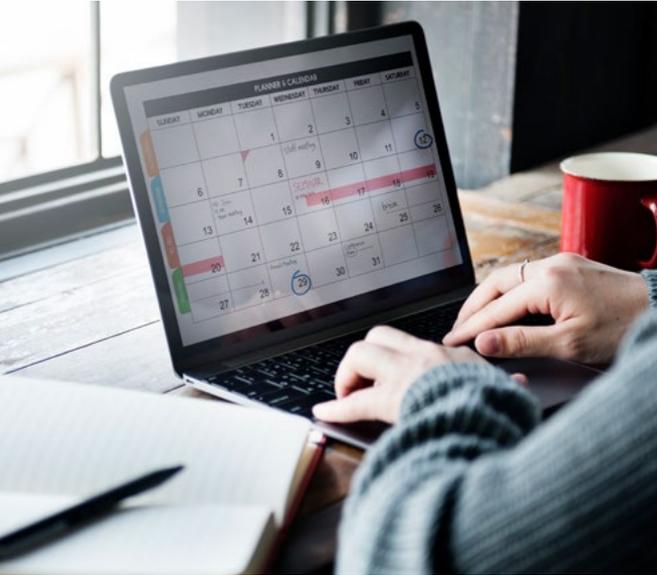
Given the glut of data that is now at our disposal, supervised machine learning is predominantly the lay of the current artificial land. In layman's terms, an algorithm is trained by manually categorizing increasing amounts of data, thus helping it to identify patterns, thereby automating the process in the future. And as it turns out, human beings are creatures of habit. So, while it is nigh on impossible to understand 100% of customer questions/responses, a majority of these can and do relate to certain broad categories, and thus could lend themselves to be resolved without human intervention. This approach is used widely in the inbound space (think chatbots), but its real value comes in the outbound or proactive engagement sphere. If we apply supervised machine learning methodologies to proactive engagement, where the objective of a conversation is explicit, the customer responses on the back of that are able to be categorized to a much larger extent.

Unfortunately, only 10% of customers ever get proactive communications from companies <sup>2</sup>. If that number isn't staggering by itself, combine it with the fact that only 9% of customers fully resolve their queries in a reactive realm <sup>3</sup>, while this number is >90% for those engaged via proactive paths. There aren't many clear and obvious choices that we make in our daily lives, but surely the math speaks for itself here.

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2. <https://www.contactengine.com/insights/delineate-customer-effort-index-whitepaper/>

3. <https://www.gartner.com/smarterwithgartner/dont-miss-the-opportunity-for-cost-savings-offered-by-self-service/>



## Coordinating appointments

Which brings us to the meat of the matter: setting up and executing hundreds of millions of appointments in people's everyday lives. We've made unbelievable advances in the technology being used in our daily lives but we're still beholden to the mundane task of holding a phone to our ear and listening to elevator music for hours, while trying to get through a task that would take minutes or seconds to complete.

The elements that lend themselves to automation via AI exist here; namely:

### 1. Clearly defined goal

A company needs to setup and coordinate an appointment with a customer while ensuring that any changes in the scheduling is timely and beneficial to both parties

### 2. High volume of interaction

As mentioned, setting up appointments for various tasks affects a very high percentage of the global population, permeating nearly every aspect of their administrative lives

### 3. Numerous channels of contact

There are a number of channels via which this effort could be coordinated. In addition, there is immense inherent complexity in reaching out to people at the right time, and being available to them when they respond

### 4. Expected categories of response

Given the goal above, the questions related to these are equally predictable. In other words, the clarity of the objective narrows down the types of responses we can expect to receive from individuals, and those can be categorized for more efficient automated resolutions. For instance, these categories may include

- a. Scheduling/rescheduling appointments
- b. Confirmation of appointments
- c. Location of the technician on the day of the appointment
- d. Request for additional information

### 5. Widely available communication technology

SMS technology is still the most pervasive mode of communicating with people, and this can be complemented with calls, emails etc. The advent of RCS or messaging apps like WhatsApp offer additional routes as well, which necessitates a coordinated omnichannel approach

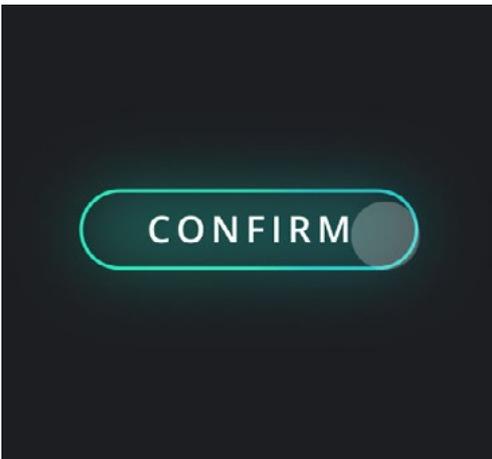
Simply being able to reach each individual is a mammoth task that would cut down the incessant workload at call centers and thus allow them to focus on the more important cases.

## The role of AI

The core use of AI in the field of customer service relies on recognizing incoming messages from customers (whether these are initiated by the customer or triggered by proactive communication), deciphering the correct intent(s), thus being able to either a) respond with the data that solves the issue for the customer, or b) recognizing it as an issue that needs human interaction and escalating it accordingly. In other words, AI technology would be standing as a front line of defense to triage the volumes of incoming messages, particularly given the population of this endeavour.

In general, it's important to note here that the end goal of utilizing this technology depends on the management philosophy of each organization. It is absolutely true that this COULD help reduce the number of call center agents required in the short-term. However, those focusing on strategic long-term goals will see that allowing the same number of agents MORE time to solve the truly complex issues requiring human deduction is what provides an amazing customer experience. This in turn ensures customer loyalty and translates into recurring patronage and increased profits.

There is a slew of variables to keep in mind when discussing the prospects of the use of AI in the reality of people's everyday lives. For instance, the medium of communication. As stated above, SMS messaging is still the most ubiquitous technology to connect with the majority of individuals. However, voice, email and other channels can be valuable as well, especially when combined into a cohesive communication schedule. One can then look at permutations including the time of communication, day of the week, language of the message, terminology used, the list is long and labyrinthine. This complexity is where AI can truly help us in relieving us of the mundanities of administration.



## Proactive engagement

When referring to engagement here, we mean the act of starting a dialogue with a customer. It'd be a relatively simple task to say "Hello, Ms.X, your broadband installation is scheduled for 10am, Friday February 26, 2021". Not only would the linguists balk at the coldness of this message, it's a one-way communication and leaves no room for the individual to come back with questions, alterations, etc. This will logically lead Ms.X to seek

out the helpline and call in for a task as simple as rescheduling the appointment for a later date. This not only ends up costing additional money but more importantly, prevents those who are in desperate need of an intelligent human interaction. Any delay caused by inefficiencies in this process means additional time taken per customer, which either leads to an increase in cost or a reduction in revenues.

Thus, choosing a technology that not only informs, but rather opens channels via which Ms. X can have her questions answered is vital to this process. Think of the sheer complexity related to the process of a typical broadband repair visit. This could include the following stages:

- 1) Confirm that the date, time and location are correct and still work for the customer**
- 2) Surface any access issues that may prevent a right-first-time visit**
- 3) Enable appointments to be rescheduled within the conversation with no need for the customer to call in**
- 4) Check if the reported fault has resolved itself (as often happens) and enable the customer to cancel their service appointment in the conversation**
- 5) Confirm that it is safe for the engineer to attend the premise (Covid-19)**
- 6) Checking in after the appointment to ensure that the visit went smoothly and collect feedback regarding the process**

Given the elements to this process and the extended period of time over which it goes, that ability to converse and be kept up to date with minimal effort from both ends (the individual as well as the company) is a necessary feature.

### Psychological context

During the best of times, being directed to a call center agent can be a dissatisfying experience, so much so that nearly 75% of customers are frustrated after such interactions <sup>4</sup>. This is a combination of many factors including the fact that customers are most likely in a negative frame of mind to begin with (further discussion for which can be found here <sup>5</sup>).

And we can all agree these are not the best of times. With millions of deaths and many more suffering worldwide, along with the fact that the world has been semi-sequestered since March 2020, cut off from friends and family, this is definitely (and hopefully) the nadir of our times.

Pandemic aside, recent research talks about the negative effect of “time poverty” on our well-being, mental health and even workplace productivity <sup>6</sup>. From a psychological perspective then, people have an increased need for any process and/or technology that helps alleviate the increasing sense of time pressure they are feeling as they go about daily lives. The mere quantum of ‘life admin’ type responsibilities means that people have less time to destress via any form of recreation. This has the potential to turn into a vicious cycle where the frustration of having less time to attend to a particular chore feeds into those duties being done inefficiently and requiring

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4. <http://www.mattersight.com/resource/please-hold-for-a-reality-check-real-reasons-consumers-are-fed-up-with-call-centers/>

5. <https://www.contactengine.com/insights/why-call-centers-continue-to-frustrate-customers/>

6. <https://www.nature.com/articles/s41562-020-0920-z>

more attempts to complete, thus exacerbating the feeling of being time poor. This necessarily means that people calling in to call centers are not in the happiest state of mind (as mentioned above), perhaps not specifically at the company or the agent, but rather due to the mere act of having to take care of one more thing.

Proactively opening a dialogue allows individuals to know that they are not solely responsible for thinking of every minutiae and that there is an avenue on which to reach out for help. If AI can help reduce the burden of having to think of a particular issue, then it's incumbent on us to use the tools at our disposal to their fullest extents.

## Conclusion

AI, in the context we've defined above, is a nascent but fast-growing technology that is already entering our homes on a regular basis. Virtual Personal Assistants like Alexa, Siri and the like are already learning to do the basics for us. At the least, they can allow us to set reminders to book an appointment. At the other end of the gamut are tools like Google Duplex which will just call and make your restaurant reservation for you.

At its core, the standalone act of setting up an appointment for any singular activity is simple. However, if you account for the psychological state of individuals who have a hundred other activities to focus on and accomplish simultaneously, even the most basic of tasks can take an immense amount of effort. If we can shed this burden using technology, then we must use it to help as many people as we can.

Either way, it's clear that human ingenuity is simply scratching the surface of such technologies and perhaps in the future, we may actually be able to spend those reclaimed 43 days of life on eight more weeks of vacation.



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## About

The report is published by ContactEngine Ltd

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ContactEngine is a Conversational AI technology that enables organizations to proactively engage customers/citizens in conversations that fulfill business objectives. ContactEngine automates outbound individual engagement across all channels and generates unique insights into the changing patterns of communication by applying demographic and intent analysis, linguistics and ground-breaking artificial intelligence principles to mass volumes of raw data. ContactEngine transforms the way organizations engage with their customers/citizens – saving organizations millions and making their constituents happier.

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