



WHITEPAPER

Y Meadows Overview

Summary

Scale Your Business AND Drive Savings 3

Understanding The Customer Message 6

Extracting Information From Messages 9

Human In The Loop 10

Automation Architecture 12

Will Our IT And Security Team Sign Off? 14

Don't Know Where To Start? 15

Scale Your Business AND Drive Savings

Y Meadows can supercharge your existing customer communication system with a combination of AI and Robotic Automation

By now, it's common knowledge that customers care more about the customer experience today than ever before. In fact, customer experience is the #1 competitive differentiator among businesses.

So, what is the best way to ensure your providing extraordinary customer experiences?

Automating and streamlining particular customer service processes with machine learning and natural language processing.

Our Purpose

Y Meadows is dedicated to improving both the customer and employee experience. By reducing time spent on recurring tasks, businesses are able to reduce costs, increase customer satisfaction, and provide the highest level of customer support.

Introducing Robotic Ticketing Automation

Today, there are 3 emergent automation technologies that are enabling businesses to automate processes in ways that have never been done before.

1. **Natural Language Processing:** Refers to the ability of a computer program to understand human language as it is written
2. **Low Code Automation (RPA):** Refers to software that can be easily programmed to do basic, repetitive tasks across applications
3. **Machine Learning:** Refers to the ability of a computer program to improve automatically through experience and with the use of data

At Y Meadows, we combine these 3 technologies to create a cutting-edge category-defining customer service automation solution. We call it Robotic Ticketing Automation.

Primary Use Case Categories

Our Robotic Ticketing delivers three solutions:

1. **DIRECT**- Reduces handling times by immediately assigning customer tickets to the correct team within your ticketing system.
2. **ENRICH**- Pull relevant data from your other systems through our Journey Engine. Agents are able to work out of one system to answer tickets that normally require investigation into additional systems.
3. **RESOLVE**- Utilizes robotic process automation to completely resolve customer tickets. Not only are customers able to get immediate answers, but customer service agents are able to focus on more meaningful engagements due to the elimination of time wasted on high volume routine tickets.

Understanding The Customer Message

How Do We Do It?

It begins with having the latest AI advancements such as machine learning and natural language processing built specifically for customer service.

1. **Most advanced Transformer models:** We use models that are large and resource intensive in order to deliver significantly more accurate results.
2. **Tuned for your business:** Since we use the best pre-trained models in the world, we can increase accuracy by 5-8% (a very significant gain) by automatically fine-tuning the model to your specific data. This is part of the Y Meadows secret sauce.
3. **Trained on your terminology:** We start with pre-trained models, but then we train them on the unique language of your business.

Understanding The Customer Message

4. **Attachments:** We can read and categorize attachments, including PDFs. The contents of the attachment are combined with information in the message itself to determine the handling of the message.
5. **Frequent phrase removal:** Some types of messages (e.g. emails) often have standard language and signature blocks. We can eliminate this language to prevent the model from being “distracted” by content that isn’t relevant to the meaning of the message.
6. **Unbalanced categories:** You may have thousands of examples of certain message types but only a small number for other types. Our automatic augmentation technique will handle the imbalance and prevent the machine learning model from ‘ignoring’ the smaller categories.
7. **Thresholds by category:** For some categories you may be very sensitive to false positives, for other categories you may be more concerned never to miss a possible message (i.e. avoid false negatives). We allow you to set the thresholds for each category, and we give you metrics to help your determination.

Understanding The Customer Message

8. **Auto ML:** Our machine learning engineers have built special algorithms that consistently outperform industry benchmarks.
9. **Languages:** Y Meadows works with more than English. As of October 2021, we have built full French support. Other languages are on our roadmap.

Extracting Information From Messages

How Do We Do It?

1. **Known entities:** To enrich and resolve we often need details from the message. Out of the box we understand email addresses, phone numbers, dates, and amounts -- even though there are a wide variety of international formats.
2. **Pattern matching:** You can tell the system to find your own specific entities based on simple pattern matching rules.
3. **Learn by example:** You can train our models to recognize entities by labeling examples. Our machine learning algorithms will understand the patterns without trying to build rules.
4. **Data in attachments:** We can automatically extract information and entities that are in attachments, including PDFs.
5. **OCR:** If you receive attachments that contain images, or are PDFs that contain images, we can read the image and extract information.

Human In The Loop

Does your business have cases that require 100% accuracy?

No worries! Y Meadows' Human-in-the-Loop "review queue" allows users to review and accept messages before they are sent out.

Everytime a ticket is processed the model gets smarter.

Human-in-the-Loop helps organizations to be self-sufficient in machine learning. When users are ready, they can remove the Human-In-the-Loop step to allow a "no touch" workflow.

1. **Add a review step:** At any point in a message's life, you can add a review step. A review might take only a few seconds to complete; it can prevent incorrect responses from going out to customers.
2. **Confidence:** Our machine learning model calculates a "confidence value". You can use this to determine whether a review is needed. The agent can see the confidence level.

Human In The Loop

3. **Edit messages:** The review panel allows agents to add wording appropriate to the customer's exact messaging for personalized messages.
4. **Validate decisions:** Let's say that our system decides to issue a credit, grant a refund, or make a change to a customer record, you can add a human review to validate the decision.
5. **Get smarter:** If you make a correction in the review step, this will feed back into our system (this is known as reinforcement learning).
6. **Send messages via the ticketing system:** Whether or not you use a human in the loop step, all responses are sent through your ticketing system, so that you have a full audit trail. Plus, the customer can reply using their normal channels.

Y Meadows' Journey Engine

The “Robotic” Part of Robotic Ticketing Automation

Y Meadows has a powerful enterprise architecture

1. **Autoscaling:** Customer support messages don't always come in steady flows. Bursts of activity may be seasonal or event-based (e.g. a system down event). Our Kubernetes based autoscaling will add resources as needed to keep messages flowing regardless of your volume.
2. **Separate namespace per customer:** This is a huge change in the architecture of a modern SaaS system. Each customer has a completely independent namespace with separate data storage.
3. **Start in the cloud:** You can be up and running for message intent classification in just a few days. Then, you can migrate to a separate environment later.

4. **Secrets are “vaulted”:** You may need to access multiple systems to enrich and resolve tickets. All of the credentials needed to accomplish this are stored in secure Hashicorp Vaults.
5. **Utilize Python:** Python is the most popular programming language in the world. We can utilize its syntax and even its libraries in our secure sandboxed environment. If your technical team would like to work in our environment, it will be familiar and maintainable.

Will Our IT and Security Team Sign Off?

Y Meadows has successfully completed the System and Organization Controls SOC 2 Type II examination for its AI Customer Service Automation solution in accordance with attestation standards established by the American Institute of Certified Public Accountants (AICPA).

In addition, Y Meadows is also ISO 27001 certified. [\(view certificate\)](#)



These accreditations are a testament to the level of dedication to data security that Y Meadows has for its customers. As digital transformation continues to tighten the bonds between businesses and their customers, Y Meadows seeks to equip businesses with the appropriate tools to adapt to rapidly changing environments. Accomplishing this mission requires a strong commitment to security.

Don't Know Where To Start?

Are you interested in automating your customer support but don't know where to start?

No worries! Y Meadows can help your business find opportunities to automate.

How does it work?

First, we perform a free AI assessment. This is done with the help of something we like to call “topic discovery”. We run your business' data through our machine learning model. The model then aggregates messages into clusters of common topics . These common topics are where we can drive value through automation.

There is a misconception that machine learning requires a lot of time, effort, and data. Luckily, this is no longer the case. You can be running initial “journeys” within days.



Y MEADOWS

+1 (424) 270-6670

info@ymeadows.com

[Contact sales department](#)