

THE PAC FRAMEWORK

HOW TO BEST IMPLEMENT AI
FOR CUSTOMER SUPPORT TEAMS

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INTRODUCTION

HOW CUSTOMER SUPPORT CAN USE AI

Artificial Intelligence (AI) is the new buzzword, and I am sure your boss has asked you to think about AI for your department. But like every new technology, AI is largely misunderstood and erroneously applied. This guide is written to provide a framework for Customer Experience (CX) teams to make sense of AI and figure out where best to apply it. The correct application depends a lot on your goals, your organizational structure, and the data sets you have to train machine-learning models appropriately.

A BIT OF HISTORY

I started Talla with my co-founder, Byron Galbraith, in late 2015. In addition to running Talla, I write the InsideAI newsletter, which has over 30,000 subscribers, and am an active investor in more than 50 AI-related companies. I have seen the early-adoption phase of AI across the spectrum and have been able to identify the things that mark the difference between success and failure of AI products. While Talla sells a product that is useful for Customer Support and Service teams who want to use AI to automate many tasks, my goal in this eBook is not to overly promote Talla, but to provide a framework that is useful for any AI provider you choose. At the end of the book we will provide a link to providers you may consider.

THE PAC FRAMEWORK

The most common question I get asked by people who don't work at the edge of technology is, *"What should I be doing about artificial intelligence?"* After getting this question too many times, I sat down and wrote out the PAC Framework, which stands for Predict, Automate, and Classify. The PAC Framework is a useful way for a senior executive at a non-technical company to think about AI. Here, I have adapted it specifically for CX organizations.

IS AI FOR ME?

Before we delve into it, we should ask the question, *"If my company is not highly technical, do I need to pay attention to AI at all?"* The answer is **yes**. AI is expanding at an accelerating rate and it reminds me of the lily pad problem you sometimes see on IQ tests.

If the lily pads on a pond double every day, and take 30 days to cover the entire pond, on what day do they cover half the pond?

Some people will say Day 15, but the answer is Day 29.

Assume you are the person responsible for watching the pond and keeping an eye on lily pad growth. For 26 days, you barely notice any change. Maybe there are a few more lily pads but it is difficult to tell because they only cover 6% of the pond. On Day 27 you realize they have grown a bit, and you wonder if this is a trend or an anomaly, so wait one more day for more info. On Day 28 it is clear they are growing faster, so you call your boss, who comes over on Day 29 to check it out and come up with a plan. But it is too late. Tomorrow the pond will be covered.

This is what will happen to you if you sit back and take the “wait and see” approach to AI. This idea is captured in this excellent post from 2015 on the *WaitButWhy* blog, which highlights why we might be in the late days of the lily pads (to keep the analogy going), and close to an AI explosion. If you believe this, what can you do? You can start to invest in AI now, taking small steps to learn and experiment. But how?

HOW TO EVALUATE AI

There is a lot that AI can do, and it is very easy to get swept up in all the cool cutting-edge research. That is not where to start. You should begin by making a grid that I call the PAC Grid. PAC stands for *Predict, Automate, and Classify*, and these are three things that current AI technologies can do really well.

To make your first grid, make three columns, one for *Predict*, one for *Automate*, and one for *Classify*. Then on the rows, list key actions of your Support/Service organization. For example, you could list: Ticketing, Self Service, Rep Onboarding/Training, Support Content Creation, etc. Then in each box you can figure out how that specific AI approach could apply to that area of your business. In this first stage, just brainstorm and fill up the boxes with all the things you could do.

Many of our customers have Support goals or key actions like:

- Bringing on new support channels
- Gaining deeper insights into customers from support data
- Providing or improving proactive support and self-service (usually by faster response times, but also by general user experience)
- Improving agent retention or agent training
- Generating more high-quality support content
- Insuring support answers are up to date and accurate
- Improving the flow between level 1 and level 2 support

These are all great areas to start thinking about small scale AI implementations. For each box you have in your chart, you can now list some actions that would benefit from software predicting something, automating something, or classifying something. Let's take the example below.

PAC GRID FOR CUSTOMER SUPPORT

USE CASE	PREDICT	AUTOMATE	CLASSIFY
New Support Channels	Whether new information is needed for an issue, and can be gathered via channel	Interactions in multiple channels	
Deeper Customer Insights		Reporting on most asked questions, most common issues	New emerging issues
Proactive/Self Service	Common questions	Answer delivery to customers	Route unanswerable questions to SMEs without human intervention
Agent Training/Retention	Agent attrition	Monotonous tasks, so agents are happier doing more advanced and creative work	Map agent performance to training needs
High Quality Support Content		Tagging of content for better ML/AI models	Duplicate Content, Similar concepts and answers
Accurate and Up-to-Date Answers		Validation of expired content, updates of content from SMEs	Whether each section of content is up to date
Level1 ▶ Level 2 Workflow	Triage a ticket to auto-route to level 2 if needed		What should be answerable by level 1 or level 2

Once you have your PAC Grid, you won't have things in each box, but you will have something in most of them. Now you should to look through it at the items that would provide the most ROI, just like you would any business decision, and start there. But when you think about long term ROI, you have to think about AI flywheels.

In many AI systems, more data gives you a better-trained model, which gives you a better customer experience, which gives you more customers, which gets you more data, which gives you an even better trained model... make sense? If you have an area where you can start that can build a defensible flywheel – a flywheel that, once started, would be hard for your competitors to catch you – then start there. Why? Because time matters for AI flywheels. The longer they have been running the better they are.

SAMPLE PAC USE CASES

Predict Support Levels

No aspect of a support team is more inefficient or frustrating than when a customer is routed to the wrong Support Tier. High-level support engineers dislike dealing with routine, easily solved issues, and customers hate being told their current support representative can't help them and they must be escalated to a higher Tier.

AI helps solve this problem by predicting the appropriate Support Tier during the request submission process. When a user submits a support ticket, AI applies natural language processing to search the request for key terms, which may match to known issues and known solutions. Based on the complexity of the identified issue, the customer is classified as requiring Tier 1, Tier 2, or even Tier 3 support.

Your ticket-routing process can either act directly on AI's prediction, automatically routing the customer to the correct Support Tier, or simply append the prediction to the support ticket so the Tier 1 agent that fields the call can more quickly determine if the call should be manually escalated.

Automate Monotonous Tasks

Much of the work of customer support is rote administration, with agents asked to capture the same information from every customer on every call, triaging and tagging that information to associate it with a particular department, line of business, solution, customer record, and/or support issue, and then confirming this initial metadata was correct once the ticket is resolved.

Much of this "support busywork" can be automated with AI-assisted data capture before, during, and after a support call. AI can parse the contents of a support request to suggest the appropriate tags and categories for a ticket and can observe the interactions of the agent and the customer during the call to adjust those suggestions as the call progresses. The support representative merely has to agree with the suggested tags and connections, rather than sort them and choose them.

Over time, as AI builds its competence in this area, support reps can be taken almost entirely out of these administrative functions, as the AI virtual agent can make highly accurate suggestions upon which humans can rely. Freed from these rote tasks, support reps can close calls faster and avoid burnout.

Classify Duplicate Content

In many organizations, support documentation is often duplicative. When a new version of a solution is introduced, or a new incidence of a known issue is documented, many companies simply add a new content item, rather than updating existing assets. (If your internal search is bad, or your knowledge base is already disorganized, this problem becomes far more common.)

AI can use natural language processing and similar semantic algorithms to flag content that appears repetitive or redundant of other documentation. This goes beyond simple keyword-matching to identify the subjects and topics discussed in specific documents, so truly duplicative data can be confidently identified.

This analysis can drive a "content cleanup" work-list so that your support teams can merge, interlink, or even dispose of duplicate information. With a streamlined support knowledge base to work from, support teams can operate from a "single source of truth" for known issues, known solutions, and support best practices.

CUSTOMER SUPPORT AI SOLUTIONS TO EVALUATE WITH THE PAC FRAMEWORK

At Talla, we believe we have the best solution on the market for a few reasons.

1. Talla works wherever you do, and integrates with all the common Support systems, so you don't have to change your existing workflow
2. Talla is continuously learning, so that your customers and reps are always up to date with the latest information. There is no monthly or quarterly re-training needed.
3. Talla is comprehensive, and touches almost every part of the customer support process with intelligence, which provides enormous benefits over our point solution competitors.

But of course, Talla isn't for everyone. Because we believe very strongly in doing what is right for the customer, we are also providing a link to some other tools you may want to look at in the AI customer support space. We hope you will choose Talla, but if you don't, we hope we can at least be helpful as you figure out what works for you.

- [AnswerIQ](#), which automates customer service responses
- [Helpshift](#), an AI-powered customer service case-management tool
- [Salesforce Einstein](#), an AI assistant for your CRM suite
- [Solvvy](#), an automated conversation tool for customer service

CONCLUSION

CX-AI ISN'T MAGIC, BUT IT IS POWERFUL

Artificial Intelligence can't today – and likely never will – automate your entire customer support process, but AI can make your customer experience teams more effective, efficient, and satisfied with their jobs. The key to properly applying AI to CX teams is to understand what AI can and can't do, and use the PAC Framework to help understand how to best implement AI.