

Transforming Customer Experiences for Google Products

Supercharge current platforms with NLP models

Google × TKS



Executive Summary

Problem

Often failing to provide the best solutions to businesses, Google's customer retention is negatively impacted; customers are not using Google's products optimally and are disappointed by the outcomes.

→ Out of over **35,000,000** small businesses in just **Canada and the US**, only around **7,000,000** use Google AdSense.

→ Google releases on average **14 new products** every year, making it difficult for sellers to learn about how they work and their application.

→ With a push towards more centralized systems, users are starting to move away from traditional applications, preferring options that are **easy to understand**, **automate tasks**, and have a clean design.

Solution

Our recommendation consists of 2 independent components to improve the current platforms: enhancing sales meetings with an AI assistant, and a chatbot that enhances the current Google Ads website.

1. Meeting Assistant :

→ Trained with Google product materials and newsletters. It is designed with LLM models, it monitors the ongoing conversation and talking points for sellers.

→ Boosting salespeople's performance with our AI-powered widget.

2. Google Ads Chatbot :

→ Building off of the existing chatbot on the Google Ads Website. A Bard-like LLM model engages with users about their ads in a conversation.

→ Trained with data from past customers, the chatbot will generate **customized predictions** based on customer input, ask for **confirmation**, and **prompt users** for any **missing information**.

Impact

Estimated **2% boost in customer retention rates for big businesses and 3% for small businesses**, equating to over **\$4 billion increase in profit**.

→ Large companies will receive **better solutions** with Google's advertisements, increasing sales, and leading to them allocating more budget with Google.

→ Providing small businesses with an interactive AdSense chatbot will lead to more customer retention and better understanding of Google's advertising process.

→ A case study found **similar results** in customer base after implementing a similar chatbot to handle applications and queries.

Problem Breakdown



Constant Product Changes

Google's product lines are vast and ever-expanding with constant updates (i.e. experts estimate that Google makes **500+ updates** to its search algorithms annually), making it **extremely challenging for salespersons** to keep up.



Undertrained Employees

According to a survey, over **23%** of American employees feel that they are **not well prepared** with the amount of training they have. As a result, they will not be able to promote Google's products to their full potential and make the optimal recommendations.

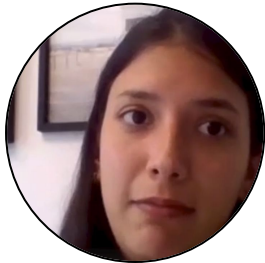


Low Customer Retention

Google's **customer retention** is **negatively affected** due to customers disappointed by their engagement with the salesperson and the solution they received.

What are Google Ads users saying?

"The thing I don't like about Google Ads it's that is not a very easy platform to use and some of its **best features are really hidden inside the platform**. I will recommend anyone wanting to use to tool to get **professional help** to setup the campaign properly."



Gabriela B.
Sales in Mining and Minerals
Industry

"This is probably a disadvantage I would say against a lot of competitors, it's the fact that Google is not easy, it **doesn't hold your hand**. I honestly go to Google's platform YouTube to search up tutorials to find ways to make ad manager to work for me. It feels very **overwhelming** and they add new tools like every month."



Aaron E.
Digital Manager in Computer
Software Industry

The Status Quo

What Do Customers Want?



Ease of Integration

- **71%** of customers interviewed believe that Google Ads are hard to onboard and integrate
- **52%** of consumers believe convenience influences at least half of their decisions



Personalization

- **33%** of marketers spend at least half of their marketing budgets on personalization
- With over **271** Google products to choose from, companies are unsure about which ones to use



Profitability

- **100%** of customers interviewed use Google Ads for profitability
- Most businesses lose money with Google Ads because they do not track leads and sales from their campaigns - both of which are more hidden features



Targeting Large and Small Businesses

80%

Global Business that currently use
Google Ads

\$50M

Amount big businesses spend for
paid search in Google Ads

7M

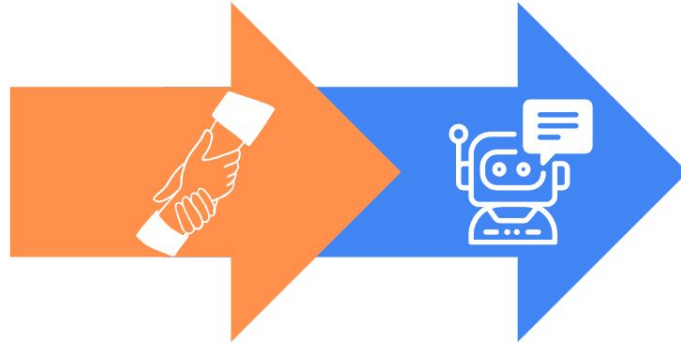
Small businesses in Canada
and US that use Google Ads

\$1-10K

Amount small businesses spend
on Google Ads

Our approach to the problem

Optimizing Sales with NLP



Aiding Salespeople

By utilizing Google Sales Assistant, salespeople can **effortlessly have products to talk about** during sales calls. Without the need to focus on memorizing all of Google's products and use cases, the salespeople can focus on giving customers the **best experience**. The person-to-person interaction is something that technology can not replace and that over **87%** of customers prefer.

Guided Campaign Creation

Google can also offer guided campaign creation which is an **LLM** that talks with you and guides you through the campaign creation process, inputting everything based on your answers and making **intelligent predictions** on the best marketing technique to use in a given scenario. This can not only **save users money**, but also help Google by **retaining the customers** who would otherwise think they are wasting money. This also **reduces the reliance on Solutions Consultants** to help customers, saving Google money.

#1 | Recommendation

Real-Time AI Extension

48% of buyers say that delivering misleading information is an immediate deal killer — insufficient knowledge of products could lead to major losses in revenue.


With a LLM that is fine tuned with the product newsletters sent by Google, as well as existing company documents, sellers won't need to spend time learning about new tools. Constant training coupled with human feedback ensures that the LLM is up-to-date and trustworthy, creating more successful sales interactions.

By leveraging the partnership with HuggingFace, we can use their LLM and fine tune it with text chunks and embeddings generated from the intelligently recognized product newsletters.

- The AI will primarily source its data from documentation containing the purpose of the product and potential applications. This data could be obtained from Google newsletters as well as information from the ConnectSales hub
- During a sales call, Google representatives will open the extension as it listens in real-time, giving sellers options on certain products that could be beneficial to sell



Click
me!



Click [here](#) to check out our Google **'Sale Assistant'** Extension!

Click here to learn more →

Technology Breakdown

Product Suggestions



1

Experience walk-through:

Assistant generates product suggestions in real-time, catered to the information given by the customer during the sales call.

2

Salespeople can see the suggestions on their end to provide them to the customer.

3

A learn more option is available to salespeople if customers want a more in-depth explanation of the product.

Using Google's existing product data and ongoing product newsletters, Google can very clearly show the best products for the customer's needs and give reasonings to support that.

AdSense Chatbot

“How can I increase local specificity with my advertising?”

The challenge with targeting new business owners for Google AdSense is the **lack of knowledge** they may have. This unfortunately leads to bad results with the current AdSense application platform. The sellers will lose out on potential leads, while Google loses out on potential revenue as small businesses are disappointed by having a negative experience.

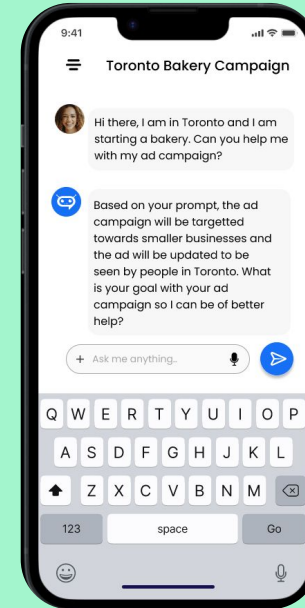
To fix this, an AdSense chatbot that will **guide business owners** through the application process. The chatbot will answer queries, go through the application process, and explain things with simplicity.

Only 44% of business owners have a business degree.

This makes it essential to explain terms simply and answer questions as needed, something that can be achieved by an AI chatbot.

Re-imagining Google as a Business Friendly Company of the Future

Prototype



Click me!




Click [here](#) to check out our Google 'AdSense Chatbot' App!

Allowing Small Businesses to Increase Profitability




78% of shoppers searched online before buying the product

Customers are increasingly reliant on searching before buying a product. This means that the importance of an online ad presence for small businesses is increasing, making the profitability for both Google and retailers much higher as time goes on.



67% of consumers are influenced by information online

Small businesses can be profitable and sway consumer's opinions by having a larger online presence which can be supercharged with tools provided by Google, the biggest search engine in the world with 91% of all users.



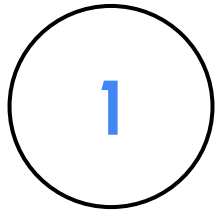
72% of consumers perform a search before visiting a store

For local businesses, allowing consumers to see their businesses online first would increase profit because many consumers search locations up before visiting.

Our recommendations allow small businesses to feel confident advertising online, making them long term Google customers.

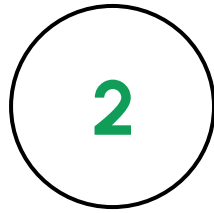
Mapping out

The Customer Journey for Small Businesses



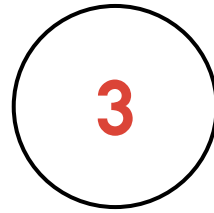
Enter

Users can input the necessary information into the **AdSense Chatbot** by **entering the questions they have** related to ads and the specific requirements for their business.



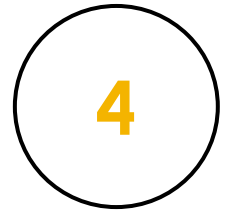
Generate

AdSense Chatbot can **explain different terms and steps** the user will need to complete in order to create an ad that attracts customers.



Ask

AdSense Chatbot uses generative AI to **answer follow-up questions** that the user has related to any additional specifics needed to be placed in the ad to gain more customers.



Create

With the help of the AdSense Chatbot, the user will be able to effortlessly, without confusion **create an ad** that will attract customers.

Advantages



Increased Knowledge

With both solutions, there will be an increase in knowledge on both the seller and the customer's side. It will allow the seller to understand the products they are explaining to their clients as well as allow the users to understand the specifics of the ads they are posting on Google.



Customer Retention

With both big and small businesses benefiting from both solutions, this will increase user attraction for Google's Ad products by companies, leading to acquiring and retaining more customers.

The Plan

Implementation

Phase 1: Planning and Research (~5 weeks)

First, Google should **establish expectations** through research and **create a plan**. Necessary steps include researching about feasibility, as well as allocating budget and resources.

Phase 3: Internal Testing (~3 weeks)

Prior to being launched to the public, the products need to undergo a rigorous internal testing process within Google to try and **identify issues** and **get feedback** from employees.

Phase 5: Maintenance and Updates

Google needs to **continuously monitor** the performance of these products and **implement important feedback** from consumers, especially in the early stages of their deployment.

Phase 2: Development (~6 weeks)

The products will be **developed by two individual teams** with engineers focusing on AI training, software implementation, as well as using interface development.

Phase 4: Launch and Advertisement

After finalizing the designs and functions of the products, they will be **launched to the public** accompanied by a series of **advertisements** to increase exposure.

Click here to learn more →

[Implementation Plan](#)

What we need from Google

In order for our products to be successful, we need Google to allocate sufficient resources and systematically market them to customers.



App Development

Allocating a budget of \$100,000 towards the **Meeting Assistant** and its development is crucial to **success** as the budget will be used to develop the model and to create a user-friendly interface. As for the **AdSense chatbot**, we estimate a **minimum budget of \$150,000** as it can be easily integrated into the current Google Ads website. Leveraging Hugging Face AI's LLM (in partnership with Google) will serve as the baseline for training the model for the new Google Meeting Assistant and AdSense Chatbot which is a costly, but valuable venture.



Marketing Tactics

The meeting assistant requires **minimal marketing** as it will just be an internal widget for Google Meet. It can be displayed as a pop-up update on the home page. However, the AdSense Chatbot will also require **more marketing** due its customer facing model.. Marketing strategies for it include Youtube Ads, email notifications to existing users, etc.

[Click here to learn more →](#)

[Financial Plan](#)

Bank of America - Case Study

In five years, Bank of America had 1.5 billion interactions with their AI assistant.

The Bank of America made a simple interface that was able to **carry out tasks for customers without struggle.**

After releasing their chatbot, the Bank of America was able to **increase their net income 19%** by tapping into customer's needs for simplicity.

Simple commands allow users to speak in simple words

1

Clean interface means that clients don't have to navigate a complicated process on their own

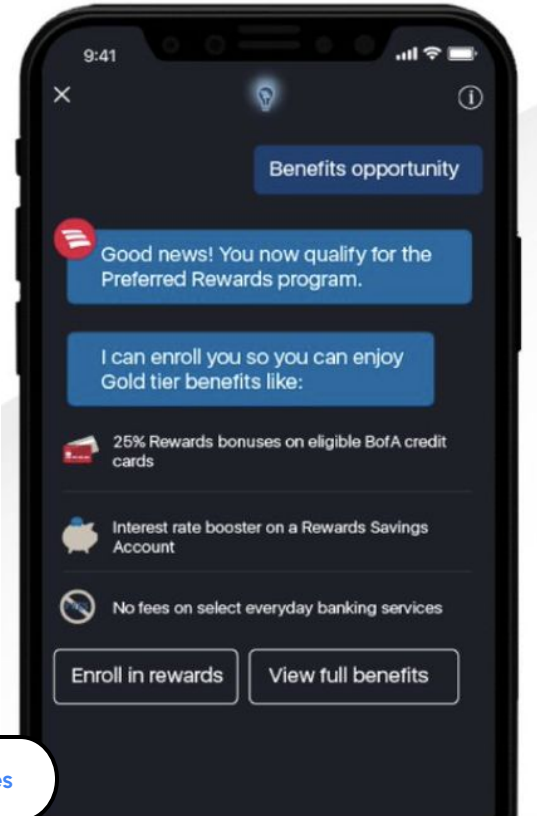
2

Being able to see insights allows users to get all their information in one place

3

[Click here to learn more →](#)

[Case Studies](#)



Mitigating Risks

The biggest risk in integrating our solution is whether the businesses will **adopt** the solution, and successful adoption depends on the **attraction and retention** of users.



Attraction

User friendly, accurate, and precise features **attract more** customers to use Google Ads Products. These channels offer targeted **advertising, incentives** for trying the solution, with personalized recommendations that **improve customer engagement and satisfaction**. By effectively leveraging these channels, the solution can build brand awareness, generate interest, and attract more customers.



Retention

Retention increases by the customer being able to **optimally use and understand Google's ad products** because users are more likely to keep using Google Ads when the information they receive is **clear, coherent, and specific** for their needs as a business. Additionally, by offering a personalized experience, users are more likely to feel connected to the solution and less likely to seek out alternative options.

What experts have to say



Nami Sadr
Sales Director, Telus

"These are really good ideas, I can definitely see them getting implemented. The amount of small business that advertise on Google but don't know how to do it properly is extremely high, and this would be able to increase their conversion rate."



Mark Scott
Engineering Director, Google Chrome Media

"This is a very relevant problem and you guys found an effective way to use AI to aid sales employees."



Dawood Yeung
Head of Engineering, Generali

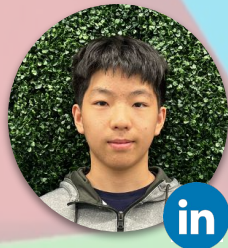
"Integrating AI-powered tools like the Meeting Assistant and Google Ads Chatbot will help businesses find the tools they need, making them stay with Google longer."

Dear Google, with immeasurable appreciation,

THANK YOU



David Shan



Jerry Yao



Divyan Bavan



Rayka Farahmand



Nico To

Through this challenge, each of us has grown indefinitely. From learning how to assess the future of NLP technology, reaching out to industry experts, delving deep into Google's vision and crafting a recommendation deck, this incredible journey has been one of great growth and learnings.

We are beyond grateful to have been given this opportunity, thank you!

[Thank You Video](#)

All the little details you may need

Playbooks

What is the technology behind this software?

Technology Breakdown

What are the customer's feedback on existing Google Products?

Customer Feedback

What are other companies doing similar concepts?

Case Studies

What does implementation look like?

Implementation Plan

What are the budget projections?

Financial Plan