



Start!

Exploring the Frontier of Voice Technology:



Google 's Journey in the Voice Assistant Market"



Current State : The Rising Trend of Voice Assistants

Voice Assistant Usage: 48% of American in 2025

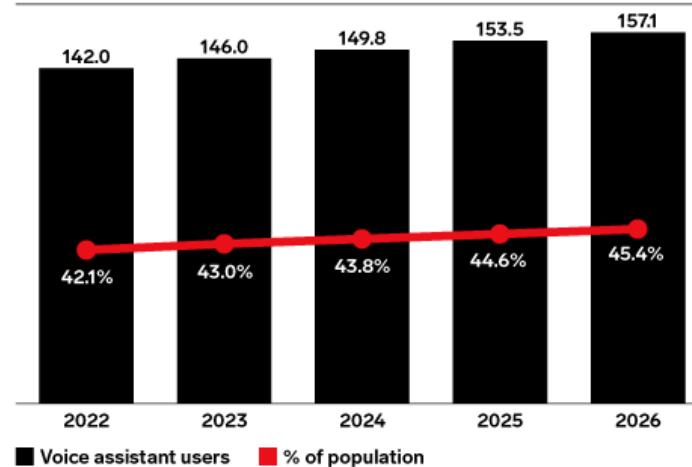
Frequency of Usage : Same usage as smart speaker

Small Business lack of AI service: 60%

AI, particularly in the form of voice assistants, has the potential to be a valuable tool in addressing the web presence issue for small businesses.

US Voice Assistant Users, 2022-2026

millions and % of population



*Note: individuals of any age who use voice assistants at least once a month on any device
Source: Insider Intelligence, July 2022*

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Insiderintelligence.com

The demand for voice assistants is increasing

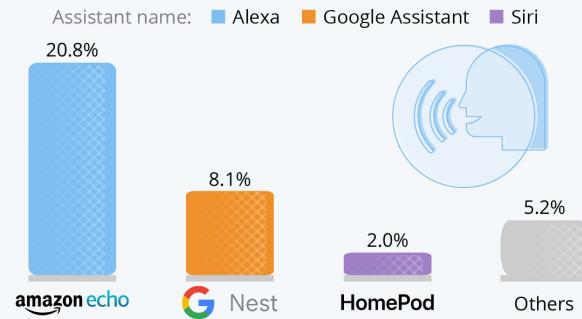


Current State : Melody of Rivals



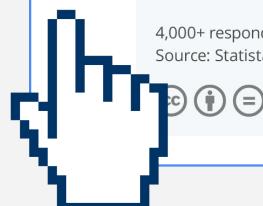
The Most Popular Smart Speakers in the U.S.

Share of U.S. adults who own the following voice-activated smart speakers (2020)



4,000+ respondents 18-64 y/o surveyed in Q3 2020
Source: Statista Global Consumer Survey

statista



- Amazon sold more than 100million Alexa devices in 2019
- The most popular smart speaker brand Amazon accounted for 27%
- Alibaba invested 1.4billion to create an ai system
- Apple is also developing business chat, which allows customers to place orders with a voice assistant
- Apple further grabbed the market with the release of Home Pod mini, increased market sales

There are currently three major competitors in the US market



Current State

Problem

Alternative

Solution

Value

Implementation

Risk & Mitigation



Current State : Google vs Amazon vs Apple

Increase Expense 70%

Apple

Amazon

Siri filled the void of a voice assistant within the ecosystem.



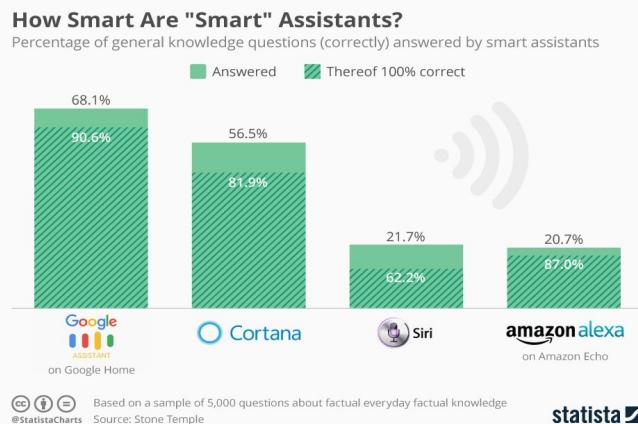
Google

Google should let its voice assistant create some value





Current State : Google's Winning Edge



Google (77%)
Amazon (56%)
Apple(47%)

Resource of Capability	Valueable	Rare	Inimitable	Organization	Impact on Competitive Advantage
Google Voice Assistant Accuracy	✓	✓	✓	✓	Sustainable competitive advantage
Google Maps Users	✓	✓	✓	✓	Sustainable competitive advantage
Google Duplex	✓	✓	✓	✓	Sustainable competitive advantage

Google Voice Assistant Accuracy
Google Maps Users
Google Duplex

Google's three core technologies provide a sustainable competitive advantage



Problem Statement : Rationale

Google's voice recognizing technology lack of a clear commercial positioning requires urgent identification of a reasonable use case scenario to generate commercial value and avoid meaningless competition

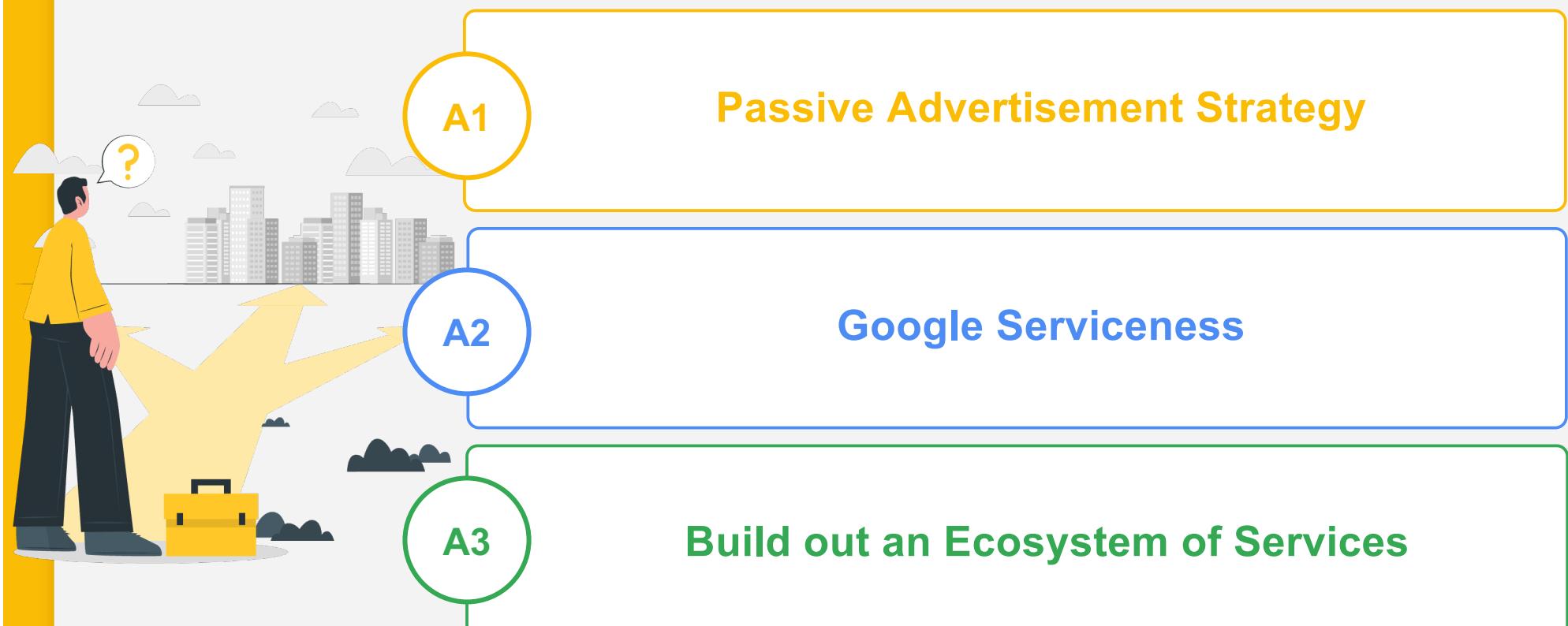
Google has a lot of market share, but did not create as much value as it should

Amazon's and Apple's voice assistant businesses don't clash too much with Google's



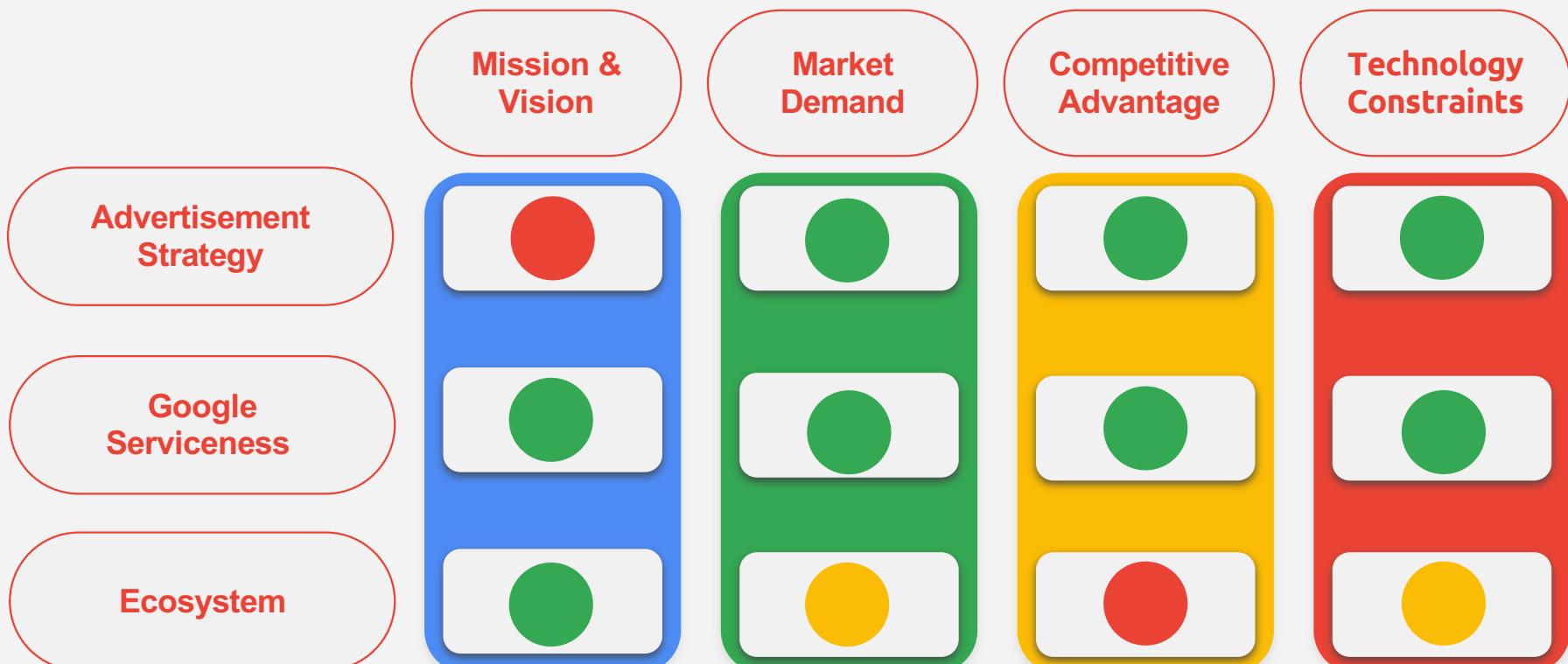


Alternatives | Identify Alternatives





🔍 Alternatives ⚗ Evaluation



Considering Google's strengths, mission, market demand, and tech constraints, the Google serviceness system is the most promising solution



Solution : Business Voice Assistant

Google serviceness system, a 24/7, multi-tasking customer service application.

'This ensures that businesses never miss an opportunity and can enhance customer relationships with fast, accurate responses.
In other words - Speak to Success with Google Business Voice Assistant - Where Business Meets Efficiency!'





Solution

Customer Journey: “Schulich Cuts”



Name: Jacques
Age: 23
“Schulich Cuts”

- Open Google Serviceness
- Check Today's Appointments

9:00 am

- Check Google serviceness notification
- Adjust the Schedule

Anytime

10:00 am

- Supervising the floor
- Handling back-office Task



- Check the data insight
- Analyze the pattern

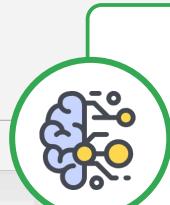
6 pm

- Allocate Human resources
- Innovate new service strategy

Google help small business enhance their service.



Value : Business Voice Assistant



Data Collection and insight

Training the machine, Gain insight of business



Monetization Opportunities

Premium Features, Subscription Model, Targeting Customer



Reputation

Help Small Business

Google Serviceness app boosts data monetization and enhances reputation.



Implementation: Road to the future voice

Negotiations with Clients

Identify businesses using Google's advertising service. Negotiate free trial on the Business voice assistant. Present trial results and convince businesses to adopt the feature.

6 M

\$50K

6 M

Marketing and Launch

Advertise the assistant using successful examples in various marketing channels. Offer limited-time free trial to encourage adoption. Introduce subscription service for continued usage. Provide comprehensive training during trial phase.

\$1M

Ongoing After Launch

Development

-Integrate functions of Google Assistant and Duplex for AI voice answering system with multilingual support.
-Conduct sufficient in-house tests and adjustments to ensure the functionality of the assistant.

\$3M

2 M

Experimentation

Start field testing with selected businesses. Conduct A/B testing on sales revenues and customer waiting times. Gather feedback for improvements before launch.

\$1M

3 M

Post-Implementation and Optimization

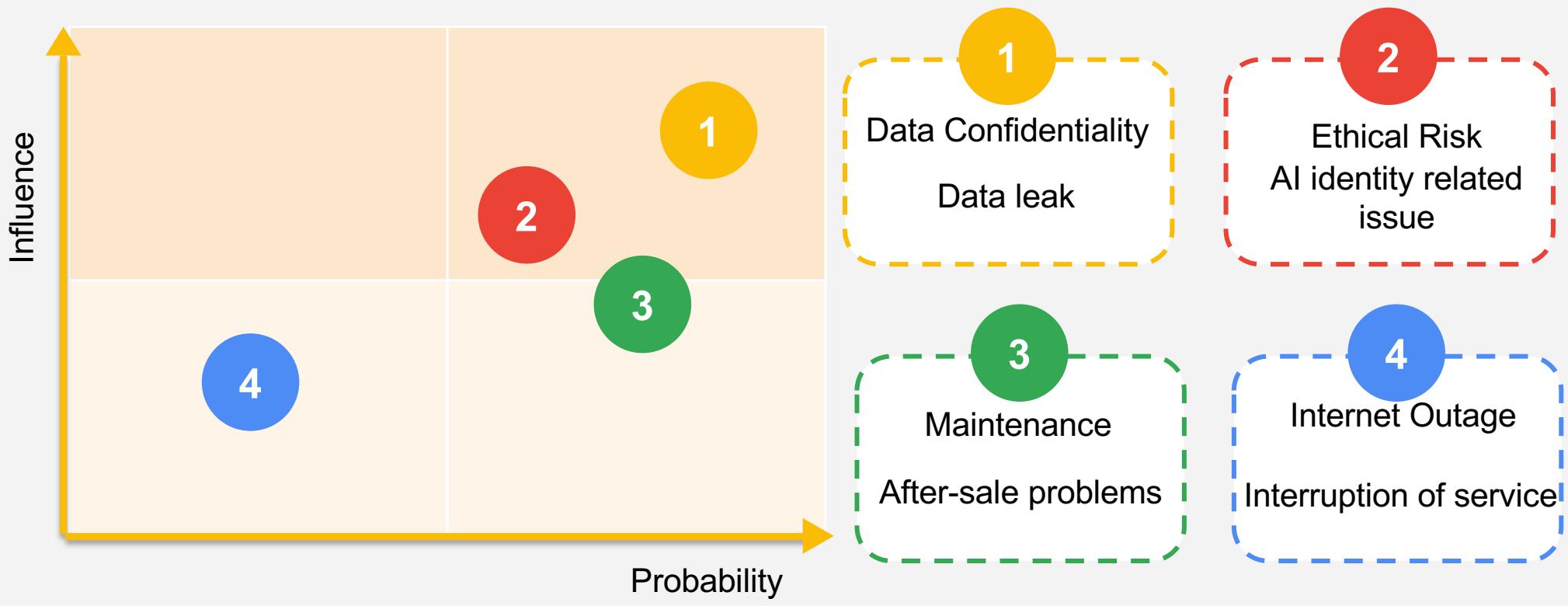
Monitor user interactions and gather insights. Continuously update and enhance the voice assistant based on feedback. Offer ongoing technical support.

Variable based on the scale of operation

The implementation plan will cost \$6.05 million in 16 month

Current State Problem Alternative Solution Value Implementation Risk & Mitigation

Risk Assessment





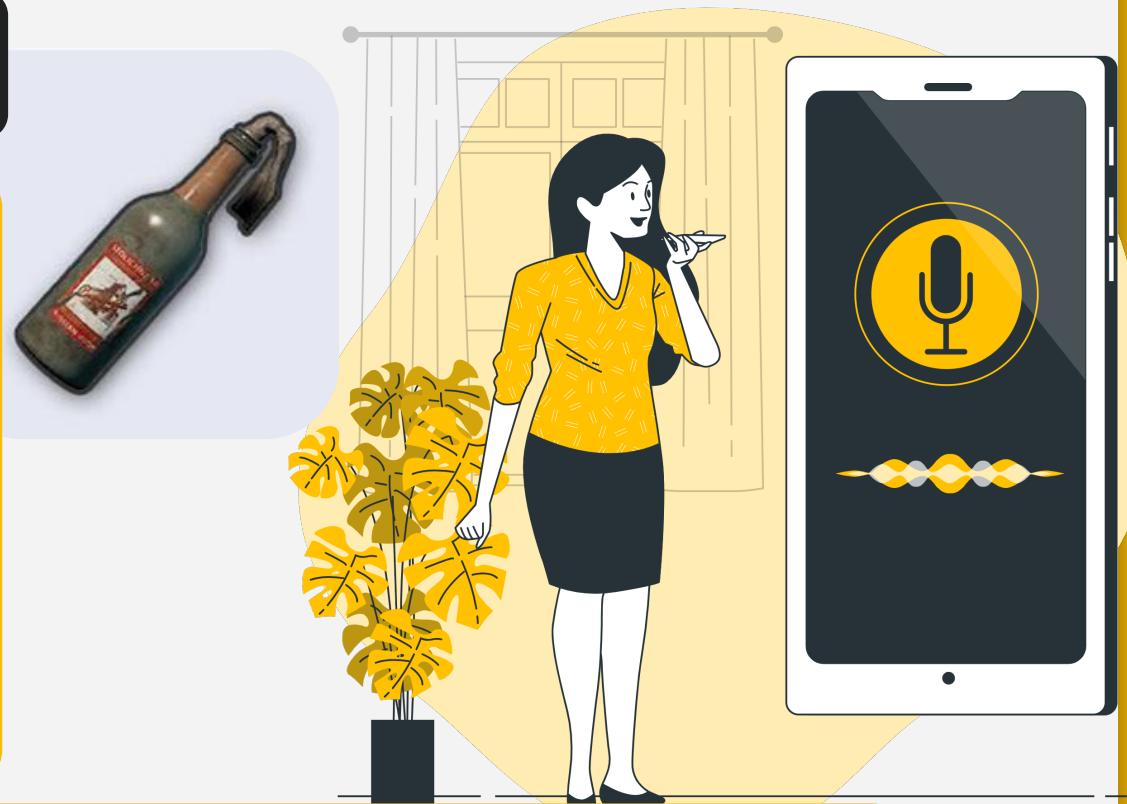
Risk ⚗ Mitigation Data Confidentiality



Grieving Napalm Engineer 🥺

Mitigation

- Intelligence and data privacy
- Unable to keep sensitive information unexploited
- Train with insensitive data



Train with insensitive data, segment privacy information

Ethical Risk

Google Duplex (2018): AI that talks like a human!

Should people be notified before talking to a human-like robot?



Disclaimer of being a robot before phone call



Maintenance Risk



Usability and **Affordance** for a software must be guaranteed

Users may be disappointed by **complex interaction** and **churn**



1. Develop a user-oriented software interface with a goal of high usability.
2. Dedicate a professional team for maintenance and after-sale service to build customers' loyalty



Develop software with usability, and train a maintenance team



Summary

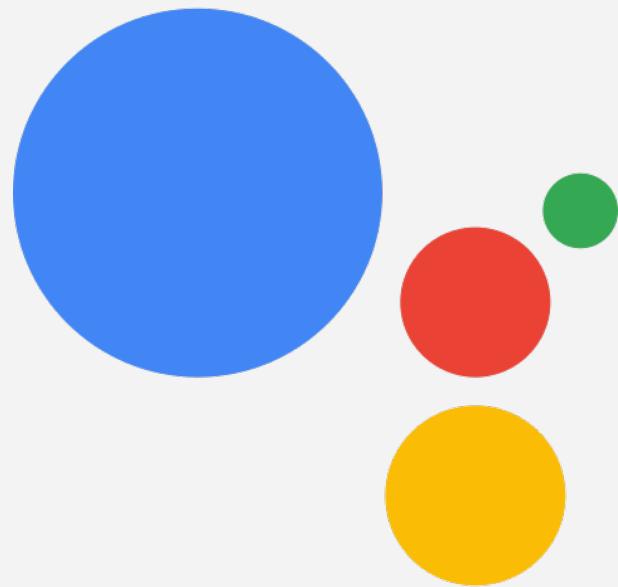
Problem Statement

Google's voice recognizing technology **lack of a clear commercial positioning** requires urgent identification of a reasonable use case scenario to **generate commercial value** and avoid meaningless competition

Solution

Google's Business Voice Assistant – customer service application





Q&A

SWOT Analysis

STRENGTHS

- Google Assistant is available in 30 languages and supports more than a thousand brands
- Google Assistant is installed on more than 1 billion devices
- Google's Voice Assistant has the highest accuracy at 77 percent
- Google acquired NEST labs, a smart home company
- 1.5 million cars support Android Auto
- Google acquired api.ai in 2016 to develop chatbots
- More than 1.5million developers use Google services to build virtual customer service
- Google Maps has more than 1billion monthly active users



WEAKNESSES

- Google's market share in the smart assistant market is lower than Amazon's.
- Google has not yet established a profitable strategy for voice.
- Some of Google's attempts, like inserting ads into Google Assistant, have faced user complaints and negative media coverage.
- The cumulative investment in Google's voice-related technology could reach billions of dollars, which requires decision-making.

OPPORTUNITIES

- 48% adults in us will use voice assistants on a monthly basis by 2025
- Android users use Google Assistant to drive 20% of their searches
- In 2021, people will use voice assistants as often as they use smart speakers
- 48% of U.S. adults will use a voice assistant once a month by 2025
- More than 20 million smart products were sent to the world, and televisions accounted for 35% of the total
- IDC estimates that 1.3billion smart products will be shipped worldwide by 2022
- Companies join forces to create Smart industry standards that allow small smart devices to connect to each other (matter standard)

THREATS

- Amazon dominated with 60% in the US, 27% In the world
- 34% of Americans have touched sirl, 32% have touched Alex, and only 25% have touched Google Assistant
- Competitors from China, and Google is banned in China
- Amazon's ASK(Alexa Skill Kit) gives Amazon alexa more useful features
- Amazon sold more than 100million alexa devices in 2019
- China's xiaomi, oppo and vivo, which account for 30% of the phone market, have their own voice assistants, which makes it impossible for Google to make these Android phones work with Google Assistant
- Alibaba invested 1.4billion to create an ai system
- The most popular smart phone brand Amazon accounted for 27%
- Amazon gives its own smart speaker extremely low prices, forcing Google to enter the price war

VRIO Analysis

Resource of Capability

	 Valuable	 Rare	 Inimitable	 Organization	Impact on Competitive Advantage
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1.Development		2.Negotiation	3.Experimentation	4.Marketing	5.Post-implementation							
Action	<ul style="list-style-type: none"> -Integrate functions of Google Assistant and Duplex for AI voice answering system with multilingual support. -Conduct sufficient in-house tests and adjustments to ensure the functionality of the assistant. 											
Cost / Revenues	\$3,000,000	\$50,000	\$1,000,000	\$1,000,000	Variable based on the scale of operation	Total:\$5.05M+						
Project Plan	2 mo	4	6	8	10	12	14	16	18	20	22	24
	1.Development		2	3.Experimentation		2	4.Marketing		5.Post-implementation			

🔍 Cost estimates

Developing stage:
according to CNBC, OpenAI's ChatGPT-3 costed more
than \$4 million.

Experimentation team:
5*BA:\$12,000/mo
Functional Manager(principle engineer):\$27,300/mo
3*Senior engineer:\$17,375/mo
2*Quality assurance:\$8,500/mo
6 month of experiment phase
total:\$938,550