



Google News - Product Requirements Document

Title / Initiative	Increasing next day retention from 20% to 25% over 6 months
Company Name	Google
Division	News
Product Manager	Rachita Mehta
Date of Creation	October 25, 2024

Introduction

- **What is Google News?**

Google News is a news aggregator service that provides a continuous flow of news articles from thousands of sources. Google News values providing 'facts over entertainment' by surfacing the most relevant information to the users. It uses AI algorithms to analyze news content in real time and present the most relevant timely articles to the users. In **2021**, Google News was reported to have over **100 million monthly active users**.

- **How does it work?**

Google News analyzes news across the web to determine the top stories for a given country and language settings. Google News algorithms select specific content to surface and link to for each story. They consider factors like the freshness and prominence of the content, and the trustworthiness of the source. Google News personalizes content based on a user's interests and previous interactions with the site. It also considers the user's location to present regional and local news. Google News provides a tailored compilation of news from different categories, such as politics, technology, entertainment, and more.

- **What problems have been identified?**

It was identified that irrelevant news surfaced user's feed which didn't cater to their interests, news containing random opinions over facts and research reduced trust in the content and lengthy news were time consuming.

and better suited for users who wanted to delve deeper into specific topics based on their interests.

Objectives

The objective of this project is to delight users on the Google News app by surfacing the most relevant and factual news, tailored to their interests, to improve next-day retention. The goal is on delivering news that is concise, accurate, and personalized, addressed key user concerns such as irrelevant news content, opinionated articles over fact-based reporting, and the time-consuming nature of long news formats. By enhancing the user experience and trust in the content provided, the goal is to increase next-day retention from 20% to 25% over a 6-month period.

Goals and Success

1. Associated OKR/Goal:

- Achieve a 5% increase in next-day retention for daily news readers.
- Reduce the bounce rate on the app by 10% within 6 months.
- Improve user satisfaction scores related to relevance and quality by 10%.

2. Success Metrics:

- Next Day Retention Rate
- User Engagement - time spent on the app, number of articles read
- Bounce Rate - users leaving the app after reading 1 article or no articles
- Feedback on user satisfaction score

3. Guardrail/Do not disturb metrics (These metrics shouldn't be negatively affected):

- Personalization not at the cost of not providing a variety of news

Understanding the Users

Target Users: Consumers

7 user interviews were conducted of people who read and didn't read news. The following 3 personas reflect the distinct responses collected:

1. Yoojin Chan - Daily user

Yoojin Chan, a young Project Management professional in her 20s, regularly reads news on Google News and Apple News. She relies on Google News as her primary source of information and uses Apple News as secondary in case Google News missed any headline that was relevant.

a. **Job-to-be-Done:** Stay informed on relevant topics quickly and efficiently, with a trusted source providing fact-based news.

b. **Variables of Success:** Personalized content relevance, trust in factual reporting, and short-to-medium length articles for quick consumption along with the availability of lengthy articles on stories that are relevant.

c. **User Statement:** "I rely on Google News every day to stay updated on the topics I care about. However, Google News algorithm to provide relevant news can be improved greatly. I like to keep my history off for privacy reasons and am sure it has affected the relevancy of news that I get, hence I double check on Apple News (it's also inbuilt in my iPhone). Additionally, I am annoyed by the amount of ads that pop-up

when I use it on my phone as I don't have an ad blocker there. If the lengthy article is about a strong opinion from the right source on a topic I am deeply interested in, I would read it as it gives me great insight and a different perspective to think about things."

2. Rachna Mehta - Doesn't read daily

Rachna Mehta, is an ambitious Quantitative Modeler in her 30s and works long hours at a Hedge Fund. Rachna reads news occasionally, only when time permits or if something major catches her attention.

- a. **Job-to-be-Done:** Get concise, reliable summaries of key news stories to stay informed without spending too much time.
- b. **Variables of Success:** Short, summarized content, trust in factual reporting, and a seamless experience to quickly catch up on important stories.
- c. **User Statement:** "I don't read the news every day but I want to keep up with what is happening so I want a quick, trustworthy summary of what's important without wasting time on irrelevant stories. Opinions are valuable as long as it's from trusted source and is something we finance folks value especial for company's stock and where the industry is heading."

3. Meghna Shah - Reads news provided on Goldman Sachs's bulletin board

Meghna works as a Data Scientist in the Compliance Monitoring Team at Goldman Sachs. Meghna values work-life balance and is an intellectual person. She primarily consumes news through the internal GS bulletin often focused on finance-related or company-specific updates. She reads the news in between her tasks or when she is taking a break.

- a. **Job-to-be-Done:** Stay informed on company and industry news but may also want broader news coverage from an external trusted source like Google News.
- b. **Variables of Success:** Accurate, fact-based news from external sources that complement internal updates, with a focus on topics like finance or business.
- c. **User Statement:** "I read the GS bulletin board for company-specific and AML-specific news, but I also need to catch up on broader, trusted news that aligns with my professional interests. I don't mind reading some lengthly articles as long as they are interesting but can't do it on a daily basis."

Solution

Selected Solution: Integrate Google Gemini

Possible Solutions:

- Fine Tune the algorithm to deliver news that is relevant to the user, even if the search history is disabled. Relevance is one of the factors used to prioritize news results. The relevance of the news to the user's search terms is a key factor in determining what the user sees in query-based experiences like "Top stories" in Google Search. A piece of content is relevant if it contains the information that the user is looking for. The most basic signal that information is relevant is when an article contains the same keywords as the user's search.
- Provide gist of daily / weekly news highlights topic wise & in general as set by the user
 - Currently under the briefings, top stories' headline show up. Instead it should provide the gist of the news.
- Use NLP algorithm to sort between opinion vs facts and research. There can be a separate feature / button which can contain options to choose either or both.

- Gauge what type of lengthly articles are read by the user and whether the user reached to the end of the article or left in between and accordingly surface articles to the users.
- **Integrate Google Gemini** that scans and answers questions related to Google News. Inclusion of gemini helps to solve for most of the problems as it can summarize, provide gist, distinguish between an opinion vs fact, provide relevant news as asked and could make the user experience interactive.

Prioritizing Possible Solutions:

Prioritizing solutions using ICE method.

Priority Score using ICE method: ((Impact * Confidence) / Effort) + Leverage

Score: 1 = very low; 5 = very high

Sr. No.	Solution	Impact	Confidence	Effort	Leverage	Priority Score
1	Fine Tune the existing algorithm	3	4	3	0	4.01
2	Gist of the important news	5	2	4	0	2.5
3	Filter button for Opinion and Facts & Research	1	3	5	0	0.84
4	Surface relevant lengthy articles	1	2	3.5	0	0.31
5	Integrate Google Gemini	3	4	2	1	7.39

Calculations:

[Calculations.xlsx](#)

Rationale for Confidence:

- Fine Tune the existing algorithm: Score 4 - Google has the expertise to improve the models. They have experience in building Ai models.
- Gist of the important news: Score 2 - Google has the expertise to build NLP models however this feature hasn't been adopted by other competitors nor are we 100% sure if the users will like it.
- Filter button for Opinion and Facts & Research: Score 3 - Google has the expertise to build NLP models and Reuters has a similar feature which is used mostly by Finance professional, the general public can or cannot favor it.
- Surface relevant lengthy articles: Score 2 - Google has the expertise to build NLP models however don't know how users will react to this feature and nor have any other competitors adopted this.
- Integrate Google Gemini: Score 4 - This feature is already built by Google and can be integrated. Additionally, people have greatly loved ChatGPT which is Google Gemini's competitor.

Details of the Solution

Customer Journey:

User Steps	Opens the App and Browses	Interacting with Google Gemini for relevant news	Interacts Further with Gemini on quick summaries	Interacts Further with Gemini on Distinguishing Opinions vs. Facts	Interacts with Gemini on additional questions
User Action	User opens the app and browses for relevant / intriguing news	User opens Gemini and sees a gist of the "Top stories of the day/week" based on user's history (based on the questions they ask Gemini, customized story interests)	The user opens an article of interest and asks Gemini to summarize the content	The user opens the article of interest and asks Gemini whether the article contains more facts / opinions and what part of the article contains it.	The user asks other questions outside of the top stories, like economic news on Ukraine.
Goals	Get informed on current affairs	Get informed on relevant news that matters to the user	Gain a quick summary of the news to save time.	To understand the type of the information provided	Get a news on variety of topics without having to swift through a lot of news.
Experience	Feel overwhelmed by the amount of news and relevancy	Feeling relieved to see the news that is relevant to the user	User is happy that they are informed and their time is saved	Satisfied with the distinction.	Feeling delighted with the information received
Emoji	🌐	😊	😃	😊	😊

Wireframes of the Solution:

The image shows a screenshot of the Google News app on a mobile device. The interface is dark-themed. At the top, there is a search bar with the placeholder 'Search for topics, locations & sources'. Below the search bar is a navigation bar with links for 'Home', 'For you', 'Following', 'News Showcase', and categories like 'U.S.', 'World', 'Local', 'Business', 'Technology', 'Entertainment', 'Sports', 'Science', and 'Health'. The main content area features a section titled 'Your briefing' with the date 'Friday, October 25'. Below this, there are three main sections: 'Top stories', 'Local news', and 'Picks for you'. The 'Top stories' section includes a card for 'Live Updates: Israel Launches Airstrikes Against Iran in Retaliatory Attack' and another for 'Beyoncé's Harris rally appearance is sure to get under Trump's skin'. The 'Local news' section shows a card for '2 suspects in California murder case arrested in Salt Lake City'. The 'Picks for you' section includes a card for 'One Type of Fiber May Have Weight Loss Benefits Similar to Ozempic'. In the bottom right corner of the screen, there is a large white downward-pointing arrow. To the right of the arrow, the word 'Gemini' is written in a stylized blue font next to a blue diamond icon.

Google News

Search for topics, locations & sources

Home For you Following News Showcase U.S. World Local Business Technology Entertainment Sports Science Health

Your briefing

Friday, October 25

Top stories >


Fox News
Israel begins retaliatory strikes against Iran following missile barrage targeting Israelis
3 hours ago • By Liz Friden, Brie Stimson & Efrat Lachter

The Washington Post
Israel strikes military targets in Iran, won't hit oil or nuclear sites
11 minutes ago • By Steve Hendrix, Susannah George & Andrew Jeong

NPR
Israel's military is conducting retaliatory airstrikes against Iran
2 hours ago • By James Hider

Full Coverage

Live Updates: Israel Launches Airstrikes Against Iran in Retaliatory Attack
30 minutes ago • By Ameera Harouda, Aaron Bo...


MSNBC
Beyoncé's Harris rally appearance is sure to get under Trump's skin
8 hours ago

USA TODAY
Beyoncé endorses Kamala Harris for president, joining the VP at a Houston rally
22 minutes ago • By Swapna Ramaswamy

CBS NEWS

Local news >

2 suspects in California murder case arrested in Salt Lake City
4 hours ago • By Carter Williams

FOX 13 SALT LAKE CITY
Salt Lake City firefighter injured in deadly wrong, crash
5 hours ago • By Jeff Tavss

FOX 13 SALT LAKE CITY
Utah Supreme Court is ruling on Amendment D
Yesterday • By Ben Winslow

Gemini

Give me a list of the top 3 stories for this week

1. McDonald's E. coli Outbreak: A growing number of people have fallen ill due to an E. coli outbreak linked to McDonald's restaurants in multiple states. The fast-food chain is cooperating with health officials to investigate the source of the contamination.

2. Merendino Brothers Reentering: The Los Angeles District Attorney's office is seeking to resentence the Merendino brothers, convicted of murdering their parents in 1989. This move could potentially open the door for parole for the brothers.

3. Biden Apologizes for Boarding School Policy: President Biden visited Indian Country and apologized for the historical "sin" of a 150-year boarding school policy that aimed to assimilate Native American children.

Picks for you

science

One Type of Fiber May Weight Loss Benefits Ozempic
15 hours ago

Ask Gemini

Gemini can make mistakes, so double-check it

Google News

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Home For you Following News Showcase U.S. World Local Business Technology Entertainment Sports Science Health

Your briefing

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Top stories >


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Gemini

give me weather news and forecast for France

France is currently experiencing a mix of sunny spells and cloudy periods. Some regions, particularly in the north and west, may encounter light rain showers. However, the overall trend is towards mild and pleasant weather conditions. For today's new day:

• **Wet weather**: Overall temperatures will be comfortable, ranging from the mid-twenties to low thirties Celsius.

• **Oscillating rain showers**: Light rain showers are possible, especially in coastal areas and mountainous regions.

• **Sunny spells**: Many areas will enjoy sunny periods throughout the day. To prepare most effectively and be as comfortable as possible, forecast for a specific region in France. I recommend checking these reliable weather sources:

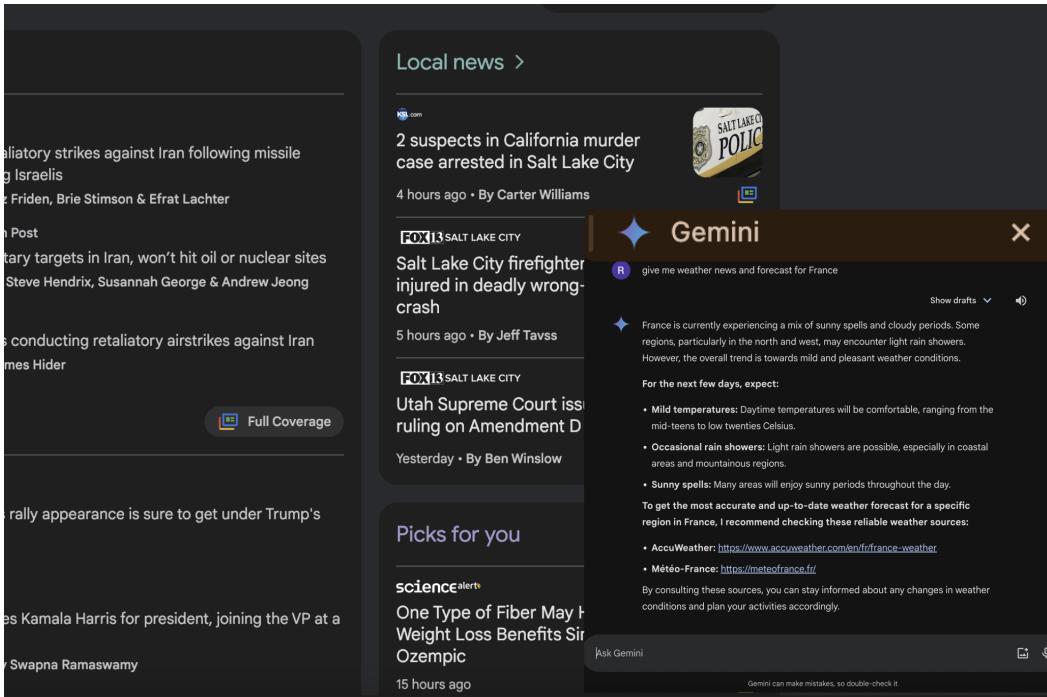
- AccuWeather: <https://www.accuweather.com/en/france>
- Meteo-France: <https://www.meteo.france.meteofrance.fr>

By consulting these sources, you can stay informed about any changes in weather conditions and plan your activities accordingly.

Ask Gemini

Gemini can make mistakes, so double-check it

Close up of Image 3



User Stories:

- **As a user looking for a personalized experience, I want** Gemini to answer specific questions about current events, **so that** I can quickly gain insights on topics that matter most to me.
- **As a user who values time and accuracy, I want** Gemini to summarize lengthy news articles, **so that** I can quickly understand the main points without having to read the entire article and provide a summary of the Top Stories.
- **As a user interested in reliable information, I want** Gemini to distinguish facts from opinions within articles, **so that** I can easily identify trustworthy information and form my own perspective on news topics.
- **As a user with varied news interests, I want** Gemini to suggest relevant stories based on my reading history, **so that** I see news that aligns with my preferences without having to search for it.
- **As a consumer who wants an interactive app, I want** Gemini to save my questions that I repeatedly ask and provide me with answers

User Acceptance Criteria:

- **Relevancy:** Gemini suggests at least 3 Top News Articles per day that align with the user's past reading habits and stated preferences, when the user opens the app. This should go hand in hand with the "summary of news".
- **Summary of Lengthy articles:** Gemini provides the user with a brief 3-4 line summary of the articles
- **Summary of News:** When the user opens the app, the app provides a gist of the Top News based on user's interest and overall consensus. Additionally provide links to those articles. This should be similar to Google's Search Lab Ai Overview feature.
- **Sorting Opinions vs. Facts:** Gemini gives a prompt about the article type at the beginning of the article.

- **Answering Questions:** Gemini provides personalized responses based on user's interests and reading history. Additionally, it acts like a Chatbot similar to ChatGPT.

Roadmap:

Phase	Q1 2024	Q2 2024	Q3 2024	Q4 2024
Discovery & Strategy	●			
Beta Testing		●		
Public Launch			●	
AI Features	Chatbot	Summarization, Fact vs. Opinion	Personalized Recommendations	
UX Enhancements	Multi-Modal Search	Cross-Device Syncing	User Preferences	
Infrastructure	Scalability Optimization	Google Search & Assistant Integration		

Dependencies:

1. Partner Support: Google Gemini approval, APIs development
2. Budget Approval
3. Headcount Requirements