

User Research

User segments

Primary segment:

Professional learners who wants to upskill and consume large contents in limited time

- Engineers, PM aspirants, people learning complex technical domains
- Need: **digest large content quickly**, consolidate, remember
- Place high value on: **structured summaries, mind maps, flowcharts**

Secondary segment:

Researchers who needs concise information from their research

- Need: **synthesize insights**, write reports, extract patterns
- Often upload interviews, transcripts, articles, long PDFs
- Care about **accuracy, citation linking, reduction of manual compile work**

Hypothesis from the first discovery

- **Content iterability** : People have the need and are struggling to iterate the content, including Change and customize the output media content and adjust the tone/voice of the audio content, the element in the image content
- **Content direct sharability** : People have the need and are struggling to share the specific generated content report / media, they only have the ability to share the full notebook
- **Depth of content diversity** : People have the need and are struggling to customize and finetune the content in varied designs

First survey

<https://docs.google.com/forms/d/10tadQF9GOrz1AWGbZchksy7-LG7SzSrRv36QHz599l/edit#responses>

First user interview scripts

<https://docs.google.com/document/d/1z6pd6NrYCUQgQyCTyFUSrDE-yhBfb3RJCP4MZM6mASE/edit?usp=sharing>

Findings after the first user survey and interview:

✓ Users primarily use NotebookLM for:

- Studying and learning new concepts
- Converging large, scattered content into a single structured space
- Getting quick textual summaries (first output is usually good enough)
- Audio/video mostly used for consumption and recall, not active exploration

✓ They rarely revisit notebooks

- After generating summaries, they move to new topics
- Notebooks pile up; the home UI does not encourage reuse
- Recall materials are desired but search/navigation is weak

✓ Multimedia generation is perceived as slow and inconsistent

- Audio/video take too long
- Inconsistent output when pausing or reloading
- Iteration adds friction (“each round takes time → drop workflow”)

✓ Web search is considered messy

- Too many irrelevant external links
- No clear filtering, preview, or relevance scoring
- Causes low trust and wasted time

Unexpected Insights (Across Users)

Unexpected Insight	Why It Matters
Users don't trust NotebookLM's external source recommendations	Huge relevance & credibility gap; causes drop-off

Users want to revisit but the system doesn't support quick recall

High opportunity for retention tools (flashcards, spaced repetition, saved slides)

Multimedia (especially audio) inconsistent when resuming

Technical reliability issue → directly blocks usage

Users treat NotebookLM as a "one-shot summarizer," not a continuous workspace

Redefines product value proposition

Content generation stops when user leaves the app

Breaks mental model: expected "background generation"

Emotional Moments (High-Impact Quotes)

Frustration: External Sources

"It suggested 60 websites. I don't know if they're relevant. This doesn't narrow the topic—it expands chaos."

→ Trigger: trying to enrich sources

→ Emotional state: distrust + overwhelm

Frustration: Blocking Workflow

"I had to give up the workflow because if I leave the app, the generation stops."

→ Trigger: audio/video generation time

→ Emotional state: resignation + irritation

Frustration: Inconsistent Audio

"When I pause the audio and resume, the content changes."

→ Trigger: playback inconsistencies

→ Emotional state: confusion + distrust

Positive Surprise

"One simple prompt and it synthesized all 6 user personas—ChatGPT needed multiple iterations."

→ Trigger: insight synthesis

→ Emotional state: delight + trust

New Questions to Explore (For Next Research Round)

1. **What would a “reliable” multimedia generation experience look like?**
(Speed? Background generation? Version control?)
2. **Should NotebookLM become a “learning hub” or a “research workspace”?**
(Or both—via different modes?)
3. **How should NotebookLM help users revisit materials efficiently?**
(Search? Saved views? Bookmarks? Flashcards?)
4. **What would make external sources trustworthy?**
 - Relevance score?
 - Source previews?
 - Filter by domain?
 - User-selectable constraints?
5. **Do users want NotebookLM to replace Notion/Google Docs as storage?**
Or remain generation-focused?
6. **Would real-time generation progress + background processing increase usage?**

Second survey

<https://docs.google.com/forms/d/1WQhpm09rqmT8ix1eESgN-BU6VE8ZmnGedD1wzFQemFQ/edit#responses>

Second survey insights:

- It is very important for users to organize and search the generated reports
- Users find it moderately difficult to search and filter reports and input sources
- Multimedia generation speed is the biggest factor for user experience
- Output multimedia quality is inconsistent
- Multimedia generation is an under adopted feature that most users are not using

SWOT Analysis

This SWOT analysis is based on 5 user interviews, analysis of 3 primary competitors, review of 15 user reviews, and secondary research from market reports. It represents the external market perspective rather than internal operations

Strength

User interviews/surveys:

- Users are overview-level summaries and first-level features from the text summarisation feature ([ref](#))
- Users found less hallucination and results being accurate using NotebookLM ([ref 1](#), [ref 2](#))
- **What keeps them from switching** : One-shot prompting effectiveness vs iterative ChatGPT process ([ref](#))
- **What would they miss most if the product disappeared?**: Multi-media generation ([ref](#))

Competitor research:

- **Market differentiation**: Its differentiation hinges on tight integration with Google's ecosystem, source-grounded reasoning on user documents, and growing penetration in education and knowledge-heavy workflows. 49% of new users tried NotebookLM after leaving Notion or Evernote (Source: User Migration Report).
- Market share in educational AI tools: NotebookLM holds **14%** as of 2025 (Source: EdTech Market Review).
- **Unique capabilities** : **35%** of educators prefer NotebookLM over Notion due to better summarization (Source: Education Comparison Survey).
- **Where it wins market share** : Market penetration is strongest in the **US, India, and UK** (Source: Google Regional Usage Data).

Source [article](#)

Observable metrics:

- **89%** of users describe NotebookLM as “easy to use” or “very easy to use” (Source: Google Feedback Survey).
- **MAU Fast growth**: NotebookLM saw a **120%** quarter-over-quarter growth in monthly active users in Q4 2024 (Source: Google).
- **Response fluency**: Response fluency was rated 9.2/10 by beta testers (Source: Google Product Review).
- **Market growth**: NotebookLM grew its market reach by **180%** from Q3 2023 to Q1 2025 (Source: Google Growth Reports).

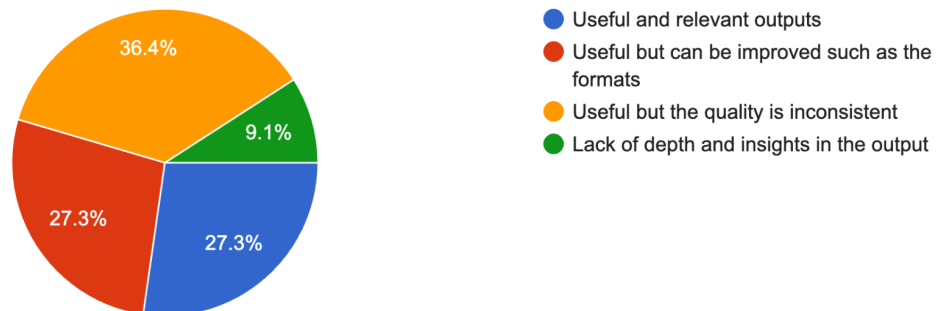
Weakness

User interviews:

→ 36% users reported multimedia output quality inconsistent ([ref1](#), [ref2](#))

How useful have you found the ability to generate multimedia content within NotebookLM?

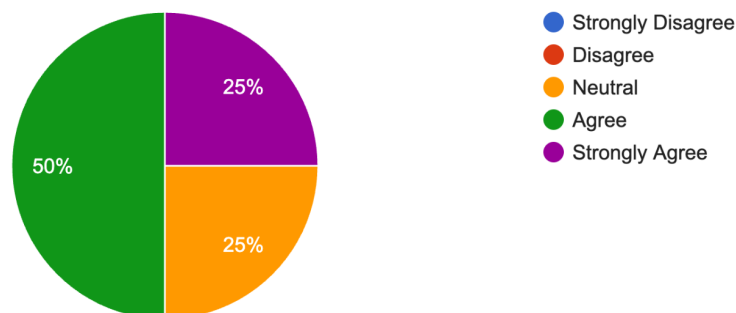
11 responses



→ 75% users found web search for external enrichment messy

To what extent do you agree with the statement: 'Web search related external enriched materials are messy and I have little control to better filter/evaluate the external input websites'?

4 responses

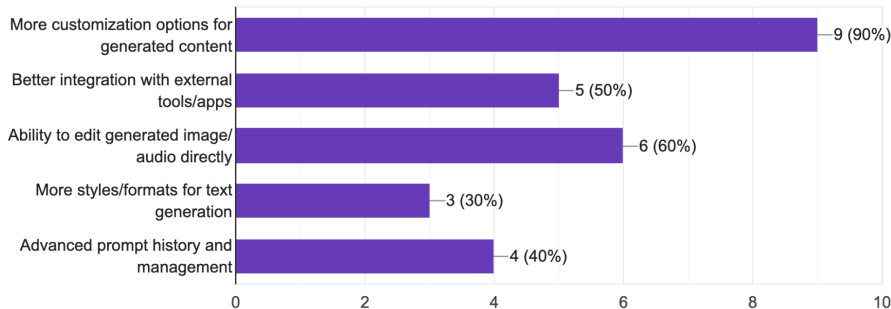


→ Average rating of multimedia generation speed is rated as 3.18 and considered too slow by users ([ref 1](#), [ref2](#))

→ User reported technical issues and inaccessibility for multimedia generation([ref1](#), [ref2](#))

Which features, if added, would make your multimedia generation experience in NotebookLM significantly better?

10 responses



→ 90% of respondents are looking for customization for generated content

Market demand gap:

- 65% of users working in content-heavy roles said they prefer tools that offer document organization, summarization, and cross-platform syncing
- Users looking for more customization, better offline support, privacy controls, or broader integration options are now exploring NotebookLM alternatives in 2025. ([ref](#))

Jobs to be done gap:

- Users Interface friction: not all created notebooks visible on dashboard, requires scrolling/searching
- Users experience content generation speed friction
- Limitation in language support

Opportunity

- Opportunity to integrate search and organization features
- Opportunity to improve customization of the multimedia generalization feature
- Opportunity to improve multimedia generation speed, audio in particular
- Opportunity to improve multi language support

Threats

- Limited collaboration & workflow features: Competitors like Notion and ClickUp offer richer shared workspaces, task tracking, and team processes; NotebookLM is weaker as an end-to-end productivity hub with the current search and organization feature gap[[1](#)]
- Availability & maturity: It remains an experimental product, region-limited, with future pricing and roadmap uncertain, which can deter enterprise adoption.[[2](#)]

- Ecosystem & export constraints: It is oriented around Google's ecosystem and, according to several reviews, still lacks mature export/sharing and integration with external tools and academic databases. [3]

Set Goal

Categorize all the Problems Identified and pick one Business area

- Poor search and organization of the generated report leads to user switch to other productivity platforms → User leave the platform and switch hurt engagement and retention drop

Goal : Improve user per session by 10% in the next quarter for individual learners and researchers

- Multimedia generation feature lack of depth → User are not adopting the feature and less likely to convert to paid premium users
 - Lack of customization in multimedia output
 - Lack of quality consistency of multimedia generation output
 - Slow speed of multimedia generation

Goal: Improve user adoption/engagement of multimedia generation feature for individual learners and researchers, improve the % of users have at least once used multimedia generation feature by 30%, multimedia generation output report out of all reports generated per user by 30% in the next quarter for individual learners and researchers

- Ecosystem & export constraints, lack of export and integration features with external databases → Researchers & Enterprise users workflow disrupted and switch to other platforms

Goal: Improve user engagement and user report export usage by 10% for individual researchers and expand B2B user base by 10X

- Language and accessibility limitation for expansion to other languages and regions→ Less users are reached and accessing the product

Goal : Expand **15X** user base all over the world

User Personas

The Enterprise Researcher (Sherry) Identity Snapshot: Sherry, Product Owner & Scrum Master. Bridges the gap between technical implementation and business strategy.	Persona 2: The Mobile Learner (Harry) • Identity Snapshot: Harry, Commuter & Self-Learner. Uses the product primarily during transit to digest information.
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• Goals / Motivations: ◦ Synthesis: Transform raw user interview transcripts into structured surveys, SWOT analyses, and persona maps. ◦ Accuracy: Prioritizes "less hallucination" and requires outputs that are factually verifiable against the source data. • Behaviours: ◦ Batch Workflow: Manually transcribes interviews → Pastes to NotebookLM → Generates "One-Shot" surveys. ◦ Validation: Actively compares NotebookLM outputs against ChatGPT and Gemini to determine which handles specific prompts better. • Frustrations (Pain Points): ◦ "Unavailable Features": Critical visualization tools (Infographics/Slide Decks) are often grayed out or unavailable in his region. ◦ "Source Noise": External source suggestions are too broad (10+ links) and irrelevant, making it difficult to narrow down topics. • Quote: <i>"I want to bridge the gap between implementation and strategy... less hallucination, more relevant responses."</i>	• Goals / Motivations: ◦ Passive Consumption: Prefers listening to "Audio Overviews" to avoid reading text on screens,. ◦ Interactive Learning: Wants to interrupt the audio to "join the conversation" and ask follow-up questions. • Behaviours: ◦ Mobile-First: Relies heavily on audio features while moving; typically inputs 12+ links per session. ◦ External Sourcing: Uses ChatGPT or Claude first to find relevant links, then dumps them into NotebookLM solely for the audio experience. • Frustrations (Pain Points): ◦ "Inconsistent Generation": Pausing or reloading the page causes the audio content to change context completely. ◦ "Wait Friction": Audio and video generation takes too long, creating friction when trying to iterate quickly,. • Quote: <i>"I prefer audio over reading for better engagement during my commute... but if I pause and restart, the content changes."</i>
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Persona 3: The Tech Explorer (Simon) • Identity Snapshot: Simon, "The Multimodal Autodidact." Senior Software Engineer (15+ years). Uses the tool to digest complex technical topics quickly. • Goals / Motivations: ◦ Rapid Retention: Wants to understand new technologies without reading lengthy blogs. ◦ Multimodal Learning: Aims to retain information by consuming the same topic across different formats (Mind maps, Audio, Video). • Behaviours: ◦ "One-Pass" Chain: Follows a strict workflow: Mind Map (for bird's-eye overview) → Audio Podcast → Video Overview. ◦ Consumption over Creation: Rarely deep-dives into customization or revisits old notebooks; he consumes the summary once to "learn and move on". • Frustrations (Pain Points): ◦ "Generation Friction": Audio and video generation wait times are too slow, breaking his study flow. ◦ "Source Overload": Suggested external sources are too broad (often 60+ websites) and irrelevant, making it impossible to narrow down topics effectively. • Quote: <i>"I use mind maps for a bird's eye view... but the wait time for video and audio generation adds too much friction."</i>
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Problem Prioritization

Scale of 1-5

	Population	Intensity	Frequency	Final weight
Poor search and organization	3	4	3	11/15
Multimedia generation feature lack of depth	3	2	2	7/15
Ecosystem & export constraints	3	2	1	6/15
Language and accessibility limitation	5	2	2	9/15

P0:Language and accessibility limitation

P1:Poor search and organization

P2:Multimedia generation feature lack of depth

P3:Ecosystem & export constraints