

SkimNews — Personalized News + Blog MiniBrowser App

Product Requirements Document (PRD)

1. Product Overview

- **Vision:** A mini-browser that pulls topic-based news, blogs, and media from the web and shows them in a clean, fast feed.
- **Core promise:** user enters a topic (e.g., AI) → app returns 10–15 best updates with images and videos (if available), plus summaries and key points.
- **Primary constraint:** Free-tier friendly (RSS + limited search APIs + caching).

2. Target Users & Use Cases

2.1 Primary Users

- Students & learners who want fast understanding of a topic (AI, finance, health).
- Working professionals who want daily digest (industry news, product updates).
- Creators / founders / marketers tracking trends.

2.2 Use Cases

- Search a topic: “AI” and see what’s happening today.
- Follow multiple topics and receive daily digest notifications.
- Save stories for later and continue reading across sessions.

3. Goals & NonGoals

3.1 Goals

- Deliver topic feed within **3 seconds** (perceived load).
- Provide **high relevance** results; remove duplicates and spam sources.
- Display content in **mobile-first** UI with clean cards, carousels, and quick actions.
- Personalization over time: learn user interests from clicks/saves.

3.2 NonGoals (MVP)

- No paid social platform scraping (Instagram/Twitter/X) in MVP.
- No user-generated posting system in MVP (only consuming content).

4. Product Scope

4.1 MVP (Launch 1)

- Topic search input and results feed
- Topic overview (smart summary + related subtopics)
- 10–15 Latest News items
- Blogs/Deep reads section

- Videos/media section (only when available)
- Article detail screen: summary + key points + source link
- Save for later + reading history
- Basic personalization (learn from activity)

4.2 Added Functions (Included in this PRD)

- **Function A — Trending Topics:** show daily/weekly trending topics; one-tap to open a feed.
- **Function B — Push Notifications:** daily digest + “breaking update” for followed topics (optional).

5. Information Architecture & Screens

5.1 Screens

- **Onboarding** (optional): select initial topics + notification preference
- **Home**: search + trending + personalized sections
- **Topic Feed**: overview + feed sections
- **Detail View**: summary + key points + actions
- **Saved**: saved stories + offline
- **Settings**: manage topics, notification time, privacy

6. UX & UI Requirements (Detailed)

6.1 Design System Rules

- **Layout**: 8pt spacing system (8,16,24...)
- **Typography**: Title 16–18pt, subtitle 13–14pt, body 12pt, metadata 10pt
- **Card radius**: 14px; light shadow; consistent padding 12–16px
- **Tap targets**: minimum 44x44px
- **Loading states**: skeleton cards and shimmer on feed load
- **Error states**: friendly empty state + retry button

6.2 Home Screen Layout

Area	Component Spec
Top App Bar	Search bar (sticky) + mic icon (future) + profile/settings icon.
Trending Topics (New)	Horizontal carousel of topic chips (8–12). Each chip = icon + label. Tap opens topic feed.
Your Topics	Row of user-added topic chips/tabs. Long-press reorder. “+ Add Topic” at end.
For You Feed	Mixed feed of followed topics; includes “Continue reading” cards based on history.

6.3 Topic Feed Screen Layout

- **Header**: topic name + Follow toggle + share icon.
- **Overview Card (collapsible)**: 5–8 bullets on what topic is + latest trends.
- **Related Subtopics**: horizontal chip carousel; tap chip refines feed.
- **Sections**: Latest News (10–15), Blogs (3–6), Videos (0–5).

6.4 Feed Cards, Carousels, Buttons — Alignment Spec

Component	Alignment & Behavior
News Card	Thumbnail LEFT (72x72) + content RIGHT. Title max 2 lines. Metadata row. Summary 2 lines.
Carousel Cards	Horizontal scroll with snapping. Card width 140px. Contains: image/icon + label + short subtitle
Video Card	16:9 thumbnail with play overlay. Shows platform icon + duration if available. Tap opens video

Buttons	Primary: Read. Secondary: Open Source. Icons: Save/Share always visible. Tap targets ≥ 44 x
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7. Feature Requirements

7.1 Topic Search

- Accepts single/multi-word queries, phrases, hashtags.
- Auto-suggest: past searches + trending topics.
- Triggers on Enter or Search button.

7.2 Trending Topics (Function A)

- Show trending topics daily/weekly for discovery.
- Displayed as carousel chips on Home.
- Generated from popular user queries + trending sources + starter list.
- Tap a chip → open topic feed instantly.

7.3 Feed Generation

- Fetch URLs via Google Programmable Search + RSS.
- Extract: title, source, publish time, image, snippet, canonical URL.
- De-duplicate by canonical URL + fuzzy title match.
- Rank = relevance 60% + recency 40%.

7.4 Push Notifications (Function B)

- **Daily Digest:** once per day at chosen time (default 8:30 AM).
- **Breaking Alerts:** only for followed topics (max 2/day/topic).
- Notification content: 1–2 headlines + deep link to topic feed.
- Settings: digest ON/OFF, breaking ON/OFF, quiet hours.

8. Detail Screen Requirements

- Hero banner image/video (max height 240px).
- Title + source + publish date.
- Summary (100–200 words) + Key points (5 bullets).
- Action bar: Save, Share, Open Source.
- Related stories: horizontal carousel (4 cards).

9. Backend, APIs & Security

- All API keys stored server-side only; never in client.
- Cache search results 6–12 hours per topic to reduce API usage.
- Endpoints: /search, /topic/overview, /trending, /user/topics, /saved, /notification/settings.
- Rate limit per user and IP.

10. Success Metrics

- Searches/user/day
- Card CTR

- Save rate + return rate
- DAU/WAU, D1/D7 retention
- Notification open rate