Product Case Study: “StreamSphere” — A Short + Long Video Media Platform

Improving User Retention through Recommendations and Continue Watching



I. Executive Summary and Business Context

1. Product Brief

StreamSphere is a youtube inspired platform that supports Short-form videos (similar to Shorts/Reels), Long-form educational + entertainment content, Creator subscriptions, Likes, comments, sharing, Personalized recommendations

2. Vision & Mission

- **Vision**

“To become the world’s most engaging and accessible video learning + entertainment ecosystem.”

- **Mission**

“Help users discover meaningful content effortlessly while empowering creators to grow sustainable audiences.”

3. **Business Context**

- Good Platform viewership
- Good content consumption
- Poor Day-7 retention
- Low engagement

4. **Problem Statement**

Users consume content passively but do not develop a habit of returning daily.

5. **Business Goal**

- Improve Day-7 Retention
- Increase DAU
- Increase Session Duration
- Increase Engagement per Session

6. **Target Users**

- Casual Viewer
- Learner
- Creator Fan

II. My Role

Role: Product Manager (Case Study)
Duration: Self-initiated Portfolio Project
Responsibilities:

- Identified a user retention problem through product analytics.
- Authored the Product Requirements Document (PRD).
- Defined KPIs and success metrics.

- Designed the event tracking plan.
- Created a Mixpanel analytics dashboard.
- Planned feature rollout and launch strategy.

III. Product Requirement Document

Feature Summary

This Document introduces personalized video recommendations near video completion and a Continue Watching experience on the home screen to help users discover relevant content, resume interrupted viewing sessions, and improve retention and engagement.

PRD Summary

PRD	1. Personalized Video Recommendations 2. Continue Watching pop-up
Owner	Aishwarya John
Stakeholders	Product team, Engineering Manager, FE Developer, BE Developer, QA one, QA two, Design team, operations & business team, Data & Product Analyst
Status	In-progress
Target Release / Quarter	FY26 R2
Problem Area	Poor retention and engagement of users
Jira Epic / Link	Jira link

Docs / Designs	Figma / mockups link
Last Updated	2026-06-26

1. Context & Problem

1.1 Background

The company has noticed,

- High app installs
- Good content consumption
- But poor user retention after Day 7
- Drop in users watching a video to users liking a video by 11.5% on a weekly basis
- Users unlikely subscribe to channels, as there is a drop on users watching a video and subscribing to the channels by 94%
- Users watch videos but rarely engage
- Very few users become returning daily users

1.2 Problem Statement

Users consume content passively but do not develop a habit of returning daily.

✅ **What success looks like:**

In order to overcome the above mentioned problem, we have to focus on,

- Better personalization
- Better engagement loops
- Better creator-user interaction

Improving the above pointers will help us to increase user retention and engagement in our platform.

2. Goals & Non-Goals

2.1 Goals

- PRIMARY METRICS

- Increase the user engagement by 30%.
- Increase the user retention after day 7 from 14% → 25%

- SECONDARY METRICS

- Increase the video watched session per user by 25% than the current rate
- Increase Average Session Duration by 15%

- GUARDRAIL METRICS

- No increase in crash rate
- No increase in page load time >2 sec

2.2 Purpose of the Goals

- Showing recommendations based on the user's previous watched and liked history will engage the user in watching more such videos and increase its rate and reduce user drop-off post one video completion.
- Showing recommendations based on the user's previous watched and liked history will make the user find their choices based on videos easily visible for them to choose and watch/save it later. This will potentially increase their engagement and therefore increase the user intention as before there was no proper filtration on the videos projected on screen and post implementation they are landing on the videos of their choices.
- The addition of continue playing pop-up for the user will bring a continuity for the user’s watch journey and we can also track the choices of the user wrt a video content and creators based on whether they are willing to continue watching the video or not.

2.3 Non-Goals

- Addition of notification pop-up appearance system for the users
- Adding filters/suggestions based on user's choices/previously watched videos on the video landing page
- Adding recommendation video clip click based on user's choices/previously watched videos while users are watching reels/shorts.

3. Users & Use Cases

3.1 Primary Users

- Users who watch shorts/reels
- Users who watch educational videos
- Users who watch long- entertainment based videos
- Content Creators

3.2 Key Use Cases

- Based on the user interest [entertainment/educational/creator fan] with respect to subscription, likes, dislikes, comments, view counts and showing some 2-3 contents while the user is about to complete watching a video can grasp the attention of users and make them watch it after completion of the current video

- Showing a pop-up stating, "continue watching" with the video preview image which when clicked leads to the video which the user was watching a while ago. -
    - Here the user must have an option to cancel the suggestion as well, which leads to homepage
    - The pop-up stating, "continue watching" must appear only when the user discontinued while watching a video < 6 days.

4. Scope & Requirements

4.1 Proposed Features (For Phase-1)

- **Personalized Video Recommendations:** Recommendations must appear showing some 2-3 contents while the user is about to complete watching a video
- **Continue watching pop-up:** The pop-up stating, “continue watching” must appear only when the user discontinued

Why are we taking up these features?

1. Personalized Video Recommendations

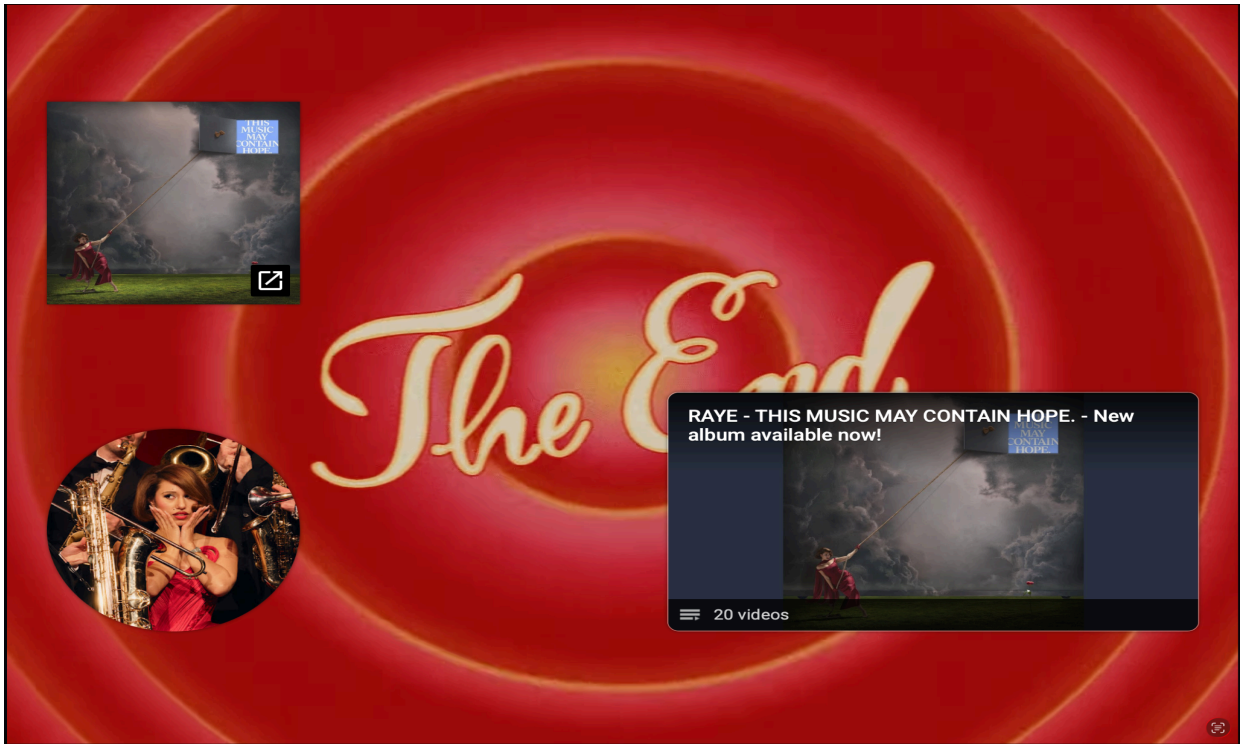
By doing this, we are giving options for the user to watch videos based on their watch history, subscriptions,content views, likes and dislikes. This will improve user engagement and retention and will bring a hassle free and user friendly journey for the user

2. Continue watching pop-up Addition:

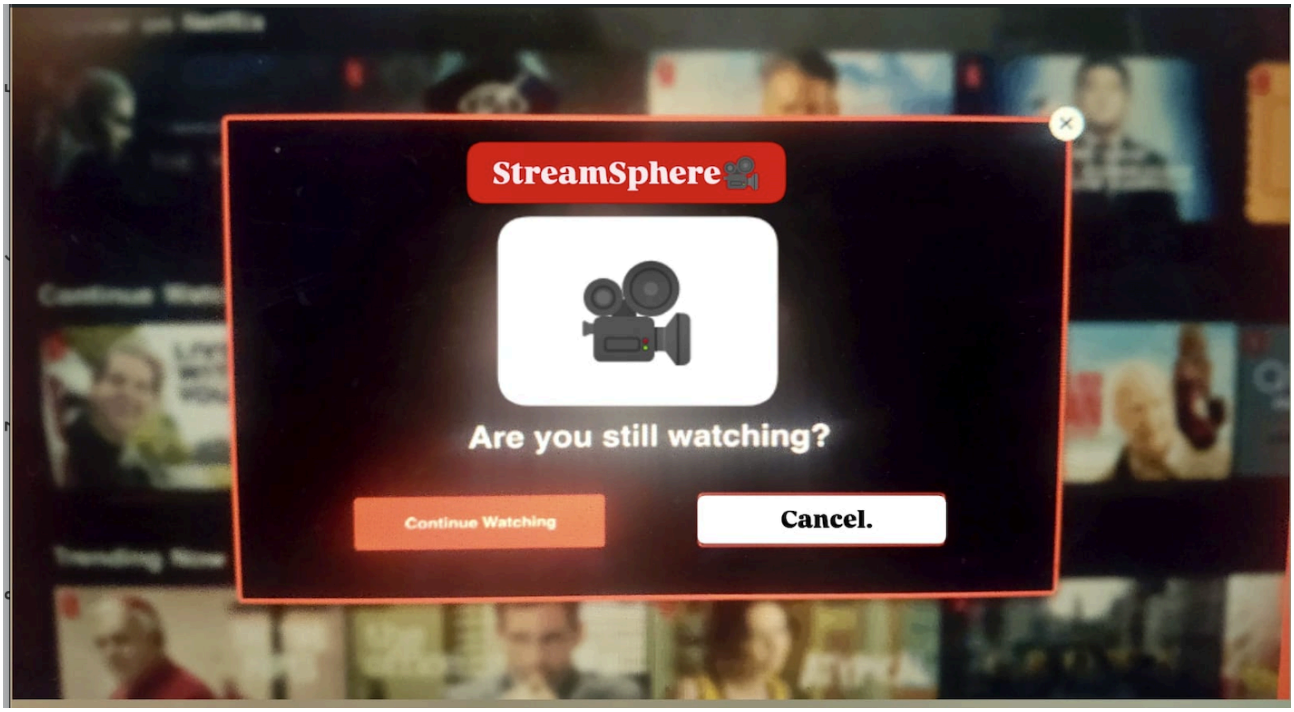
Showing continue watching pop-up for the users who discountinued using the app while watching a video. By doing this, we are enhancing the user's journey and also the user's engagement

4.1 In Scope (Functional Requirements)

- **FR1 — Personalized Video Recommendations:**
  - Video recommendations with video preview appearing at the right corner of the video screen while the user is about to complete watching a video
  - Video recommendations must be based user specific based on every user’s interest that is the user’s subscription, likes, dislikes, comments, view counts.
  - The video recommendations must appear on long [entertainment and educational] videos only
  - The video recommendation count must not exceed more than 3.



- **FR 2 — Continue Watching pop-up addition**:
  - When the user clicks on our app/ platform and lands on the homescreen, “continue watching” option must appear with the video preview image which when clicked leads to the respective video
  - Here the user must have an option to cancel the suggestion as well, which leads to homepage
  - The pop-up stating, “continue watching” must appear only when the user discontinued while watching a video < 6 days.
  - The pop-up must not appear if user have logged out the app
  - On clicking the video preview, user must land on the respective video stream where they left



4.2 Out of Scope (Phase 1)

- Addition of recommendation/suggestions column with relevant video content on homepage
- Sending recommended video contents based on the user's interest as notification pop-up for the users.
- Addition of bell icon for wrt each video and sending notification pop-up consistently once the user clicks on bell icon for a respective content
- Adding an AI support bot which will help the users in naivgation to required content.

5. User flow & UI

- **FR1 — Continue Watching pop-up addition**:

Happy flow

1. The user opens the StreamSphere app/platform.
2. The system identifies partially watched videos for the user.
3. Continue Watching pop-up is displayed.
4. The user clicks on the continue watching CTA in the pop-up
5. The system navigates the user to the respective video.
6. Video playback resumes from the last watched timestamp.
7. The user continues consuming content.

Alternate Flow -1

1. The user opens the StreamSphere app/platform.
2. Continue Watching pop-up is displayed.
3. The user clicks the "X" icon.
4. Pop-up is dismissed.
5. The user is navigated to the Home Screen.

Alternate Flow - 2

1. The user opens the StreamSphere app/platform.
2. Continue Watching pop-up is displayed.
3. The user clicks the Cancel CTA
4. Pop-up is dismissed.
5. The user is navigated to the Home Screen.

Edge cases

1. Video playing from the beginning instead of resume play when user clicks on “continue playing” pop-up consent
2. The video is not available currently when user clicks on “continue playing” pop-up consent

- **FR2 — Personalized Video Recommendations:**

Happy Flow

1. The user opens the StreamSphere app/platform.
2. The user selects and starts watching a long-form video.
3. The system identifies relevant videos based on the user's watch history, preferences, and current video context.
4. As the current video approaches completion, a Recommendations section is displayed.
5. The user clicks on one of the recommended videos.
6. The system navigates the user to the selected video.
7. Playback of the selected video begins.

Alternate Flow

1. The user opens the StreamSphere app/platform.
2. The user selects and starts watching a long-form video.
3. Recommendations are displayed as the current video approaches completion.
4. The user does not click on any recommended video.
5. The current video completes playback.
6. The user remains on the video completion screen and may choose another action (browse content, search, exit, etc.).

Edge cases

1. The video is not available currently when user clicks on the video recommendation.

5.2 UX Rules / Behaviors

[[Any specific UI/UX Requirements can be added here]

💡 **Design note:** Link mocks here and call out the decision points the UI enables.

6. Risks

Risks & Assumptions

- Recommendations may not be sufficiently relevant for new users.
- Recommendation CTR may not meet target expectations.
- Users may ignore or dismiss Continue Watching prompts.

Edge Cases

- Dismissed popup reappears.
- Resume playback starts from incorrect timestamp.
- Recommended video is unavailable or removed.

7. Data, Integration and API needs

[[We can add the api related things here for the devs and other stakeholders]]

8. Analytical Requirements:

8.1 Tracking plan

All analytics instrumentation requirements, KPI definitions, event taxonomy, and event properties are maintained in the tracking plan document below:

a. Business KPI's

Business name	**StreamSphere**	
Business purpose	Content creation 1. shorts and reels 2. long duration eductational videos	
Usecases that are good for the	- High app installs	

company currently	- Good content consumption	
Usecases that needs to be improved for the company currently	- But poor user retention after Day 7 - the viewship of videos is good but the retention and user engagement is low that is interaction behaviors like likes/comments/shares are low, reducing retention potential.”	
Hypothesis	Users who interact with videos are more likely to retain after Day 7	
Use case that needs to be solve based on above points	- calculate retention - calculate DAU AND WAU	
Improvements that can add value	1. Personalized Video Recommendations By doing this, we are giving options for the user to watch videos based on their watch history, subscriptions,content views, likes and dislikes. This will improve user engagement and retention and will bring a hassle free and user friendly journey for the user	[Expected Release timeline] Phase 1 Implementation
Improvements that can add value	2. Showing continue watching pop-up for the users who discountinued using the app while watching a video.	[Expected Release timeline] Phase 1 Implementation

	- By doing this, we are enhancing the user's journey and also the user's engagement	
Improvements that can add value	3. Addition of bell icon for wrt each video and sending notification pop-up consistently once the user clicks on bell icon for a respective content By doing this the user can hit on bell icon on their relevant/favorite playlist. This will make us show there relevant playlist on top as a filter making it user friendly for them and also show them addition of new videos via pop-ups on priority . In this way, we can make the retention rate higher	[Expected Release timeline] Phase 2 Implementation
Improvements that can add value	4. Homepage New Additions - Making the homepage user friendly by 1. Giving a quick dismissable demo on functionality and navigations of the app/platform for 1st time logged in user 2. Adding rives and lotties for the new arrivals based on user's interest which helps as an indication for the user to	[Expected Release timeline] Phase 2 Implementation

	watch	
Improvements that can add value	5. Adding an AI support bot which will help the users in naivgation to required content.	[Expected Release timeline] Phase 2 Implementation

b. Events to be instrumented for Phase -1

i. FR1: Personalized Video Recommendations

Event Name	Trigger	Purpose
Recommendation Video Clipboard	The recommendation clipboard appearance when user reach the end of their current watching video	To check the appearance of suggestions video clipboard accordingly when user is about to end their currently watching video
Recommendation Video Name	The recommendation header/title appearance when user reach the end of their current watching video	To check the appearance of suggestions video header/title accordingly when user is about to end their currently watching video
Recommendation Video Tap	User clicks on recommendation clipboard	To check the Recommendation Video click
Recommendation Video Dismiss	User dismisses recommendation clipboard	To check the Recommendation Video dismiss click
Recommendation Video Category	The category of the recommendation video	To check the video category of the recommendation videos
Recommendation Video Channel	The channel name of the recommendation video	To check the channel name of the recommendation videos
Recommendation Video Session	The session id of the recommendation video	To check the session id of the recommendation videos

ii. FR 2: Continue Watching pop-up

Event Name	Trigger	Purpose
Continue Watching Pop-up	When user closes the app/leaves it in background while watching a video without completing the video watch	To check the appearance of continue watching pop-up when user closes the app/leaves it in background while watching a video without completing the video watch
Continue Watching Tap	User clicks "yes" to resuming their previously discontinued video	To check the yes cta click/tap on the continue watching pop-up
Continue Watching Dismiss	User clicks "no" to resuming their previously discontinued video	To check the no cta click/dismiss the continue watching pop-up
Continue Watching Video Landing	User lands to the respective video in a resumed state	To check the landing success of the discontinued video
	User lands on a different screen	
	User lands on the respective video where video plays from beginning	To check the landing failure of the discontinued video

Detailed Tracking Plan: A complete event taxonomy, event properties, and KPI mapping are maintained separately in the Tracking Plan spreadsheet.

Document Title	Attachments
Tracking Plan & KPI Framework	Tracking Plan & Events
Mixpanel Dashboard	Dashboard

8.2 Success Metrics

1. **Primary Metrics**

Metrics	Description	Current rate	Expected rate	Expected Improvements

D7 Retention	Users who return on Day 7 and watch at least one video	14%	25%	+11 pp [78.6%]
Average watch per user	Average minutes watched per active user	18 Minutes	23 Minutes	+5pp [27%]
Engagement Rate	% of active users who perform at least one engagement action (Like, Comment, Share, Subscribe)	10%	13%	+3pp [30%]

2. **Secondary Metrics**

Metrics	**Description**	**Current rate**	**Expected rate**	**Expected Improvements**
Video watched per session	Average number of videos consumed in a session	4.1	5.1	+1 video[24.4%]

3. **Guardrail Metrics**

Metrics	**Description**	**Current rate**	**Expected rate**	**Expected Improvements**
Crash Rate	% of sessions that experience an application crash	< 0.1%	Maintain < 0.1%	No degradation expected

9. Rollout / Launch Plan

9.1 Rollout Phases

Phase	Audience	Rollout %	Duration	Goal
Internal Testing	Employees & QA Team	100% Internal	1 Week	Validate functionality and tracking
Beta Rollout	Existing Active Users	10%	1 Week	Measure initial engagement and stability
Controlled Rollout	Random User Cohort	25%	2 Weeks	Compare metrics against control group
Gradual Expansion	All Active Users	50%	1 Week	Validate scalability
Full Launch	Entire User Base	100%	Post Validation	Full feature adoption

9.2 Launch Readiness:

- Design complete: Week 1
- Development complete: Week 3
- QA timelines: Week 4
- Beta Rollout & Bugs Resolution: Week 5
- Full Rollout: Week 7

9.3 Launch Checklist:

- Design sign-off completed
- Development completed and code merged
- QA sign-off completed
- Analytics events validated in Mixpanel
- Recommendation engine performance validated
- Push notification templates reviewed
- Support team training completed
- Launch communication approved
- Rollback strategy documented
- Feature flags configured

9.4 Post Launch Monitoring:

Metric	Expected Target
D7 Retention	14% → 25%
Average Watch Time/User	18 min → 23 min
Engagement Rate	10% → 13%
Videos Watched per Session	4.1 → 5.1
Crash Rate	No increase

9.5 Rollback Criteria

The rollout may be paused or reverted if:

- Crash rate increases significantly
- Watch time drops below baseline
- User complaints increase substantially
- Recommendation CTR performs below expected benchmark.

Feature flags will be used to disable the feature for affected cohorts while the issue is investigated.

10. Open Questions

- What is the optimal timing for showing recommendations?
- Should Continue Watching expire after a certain period?
- How should new users with limited watch history be handled?