Imagine a world where data is extremely scarce. Pick a popular product and re-think it with this constraint. How will you re-design this product, without losing its core value proposition?
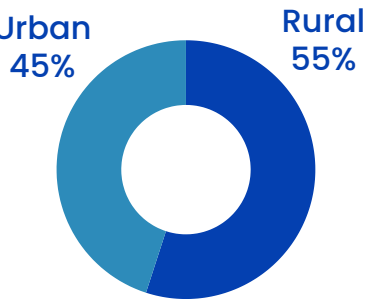
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- How would this world of data scarcity change user behavior and expectations?
- Which product or experience would you reimagine, and why that one?
- What core value must your product continue to deliver despite this constraint?
- How will you redesign the experience? What trade-offs will you make?
- What are the biggest risks or limitations of your approach, and how will you handle them?
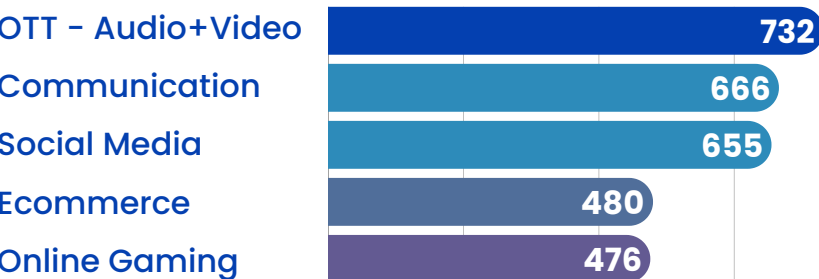- What does success look like? How will you measure if your redesign truly works?

Problem Statement: Redesign a popular product for Indian users with limited Internet data usage, while preserving its core value proposition

India on Internet
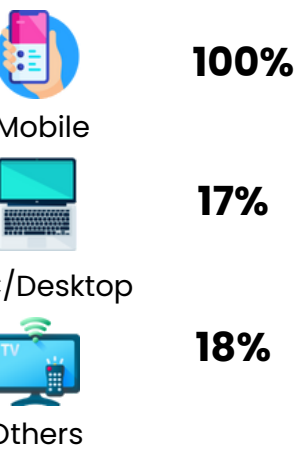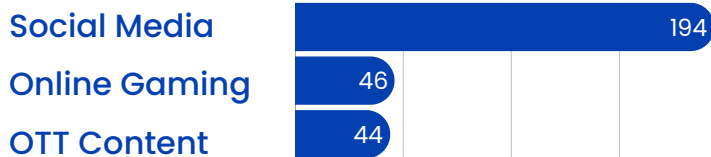886M Users | 8% YoY Growth | 900M+ by 2025

Users by Region

Urban 45%
Rural 55%

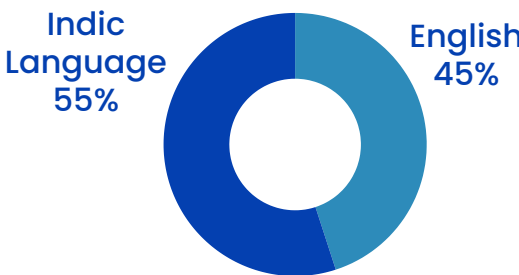#### Where India Access Internet

Mobile **100%**

PC/Desktop **17%**

Others **18%**

Activities in Indic Language

Social Media	81
Online Gaming	69
OTT Content	36
Online Shopping	23

Top Use Cases - By Number of Users

OTT - Audio+Video	732
Communication	666
Social Media	655
Ecommerce	480
Online Gaming	476

Top Use Cases - By time spent

Social Media	194
Online Gaming	46
OTT Content	44

Language Usage Preference

Indic Language 55%
English 45%
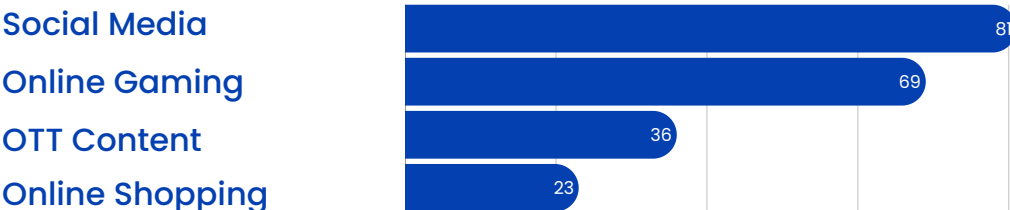
India on Internet

Top App	India Users	Lite Version	Indic	Effectivene	Top App	India Users	Lite Version	Indic	Effectiveness
YouTube	491M	❌	● Limited	★★●●●	Instagram	362M	✅ Active	● Limited	★★★●●
Netflix	80M	❌	❌	★★★●●	Facebook	448M	✅ Active	✅	★★★★●
Hotstar	300M	❌	✅	★★●●●	BGMI	100M+	✅ Active	✅	★★★●●
WhatsApp	487M	❌	✅	★★★★●	Ludo King	500M	❌	✅	★★★★●

Why choose Entertainment?

Social Media Already Has Lite Versions
Facebook Lite, Instagram Lite, and Twitter Lite already serve data-conscious users. Opportunity lies in untapped entertainment segment.

Video Content Dominates Indian Internet
70% of total traffic on Indian internet is video content. Highest data consumption + biggest pain point = biggest opportunity.

WhatsApp Has Data Management Covered
WhatsApp offers auto-download controls and media compression. No need to compete in messaging—focus on entertainment gap.
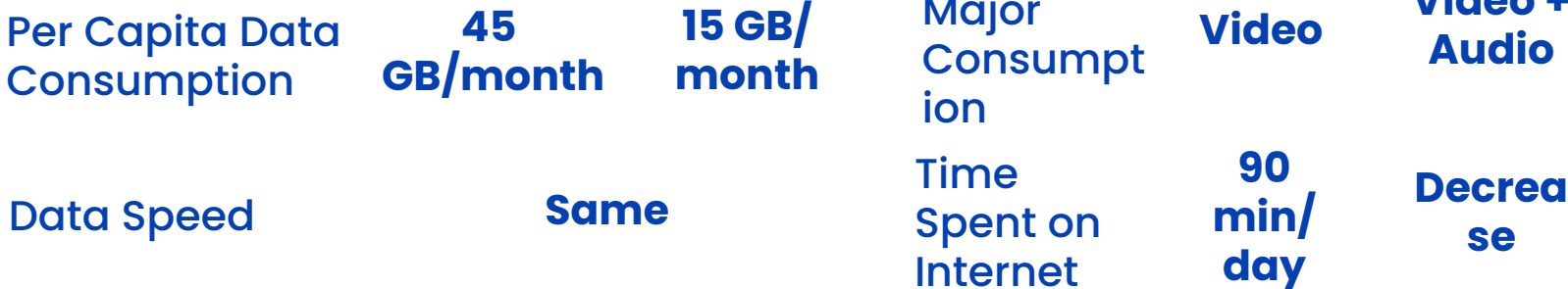
Short-Form Video Drives Engagement
94 mins/day on social media is driven by reels, shorts, and stories. Users want entertainment, not just social connection—address this need directly.

How Data Scarcity will affect Entertainment

5 GB/month Text first

15 GB/month Video-Audio Conscious Video

45 GB/month Video First

What changes in the world with scarce data?

Per Capita Data Consumption	45 GB/month	15 GB/month	Major Consumption	Video	Video + Audio
Data Speed	Same		Time Spent on Internet	90 min/day	Decrease

Adapting to the Limits of Data Access

Unlimited Consumption → Budget Conscious Consumption

Real-Time → Offline-First

Visual-First → Mixed/Voice-First Interfaces

Individual Usage → Shared Usage Patterns

Problem	User Research	Product	User Flow	GTM	Risks and Metrics

Which Application to Redesign ▶ Youtube

Why?
Built for Unlimited Data, Not 15 GB/Month
Designed for Personal Devices, Not Shared Families
Assumes Always-On Connectivity, Not Offline-First Need

Core Value Propositions

Universal Access to Entertainment
YouTube democratized video entertainment - 491M Indians watch content across languages, creators, and formats without gatekeepers or subscriptions.

Creator Economy at Scale
From farming tutorials in Punjabi to Tamil comedy Shorts - creators monetize passions while audiences discover culturally-relevant, authentic content daily.

Always-On Cultural Connection
Real-time trending moments (IPL highlights, festival celebrations, breaking news) keep 886M Indians connected to what matters, wherever they are.

Primary Entertainment Modes

Mode	Current Usage	Data Consumption	User Preference Driver
Short-Form Video	High	200-300 MB/hour	Visual-first, instant dopamine hits
Music Streaming	Medium	40-80 MB/hour	Mood upliftment, nostalgia, cultural connection
Long-Form Video (OTT)	Medium	300-500 MB/hour	Storytelling, immersive experiences
Audio Content (Podcasts/ Audiobooks)	Growing	25-40 MB/hour	Multitasking-friendly, educational

User personas

Age: 38
Jalandhar, Punjab
Rs 20,000K/month
8K Smartphone
Jio 500 MB/Day

My Story
My son loves watching reels on my phone, but he uses up all the data, leaving nothing for my own entertainment.

Painpoints

Family Data Conflict
Daily data is used by family first, leaving nothing for the user

Unpredictable Connectivity
Poor network in remote farmland areas causes frequent buffering

Missing Cultural Touch
Lack of offline access to trending regional content

Forced Trade-Offs
Users feel guilty choosing their own entertainment over family needs

Rapid Depletion
500MB/day cap disappears in under hour, causes"data anxiety.

When I watch
6 AM: Gurbani prayers while preparing for work 2 PM: Field breaks (network often fails) 7:30 PM: Post-work, primary entertainment window 10 PM: Before sleep (if quota remains)

What do I watch

Music & Audio: Punjabi folk song, Latest Punjabi hits, Devotional Gurbani

News & Information: Daily news bytes in Hindi, Local Haryana/Punjab news shorts

Cricket: India match highlights, IPL recaps & reels

Entertainment:Punjabi comedy shorts, drama web series clips

Age: 18
Lucknow, UP
Rs 10,000K/month
18K Smartphone
Jio 500 MB/Day

My Story
" I use my phone for exam prep, music, and social media. Lots of my data gets spent on short videos and trending reels before classes are over and there's no data for lectures "

Painpoints

Rapid Depletion
Short videos drain daily quota in the afternoon

Content Discovery Overload
Endless scrolling through algorithm-driven feeds wastes time and data

Acads vs Entertainment
Academic videos compete with entertainment for limited data

Low Data Planning
Hostel WiFi is slow, so can't always download content at night

Peer Pressure
Needs to stay updated on trends to feel part of group

When I watch
Late night (lecture/tutorial download) Breaks between classes (reels/memes) Evening (music/group chat) Exam time (study content prioritized)

What do I watch

Academic: Lecture videos, exam prep channels

Social: Instagram/YT Shorts, meme and trend videos

Music: Bollywood/indie playlists during study breaks

Community: Student group WhatsApp news and event forwards

Design Principles for Data-Scarce Entertainment

Adaptive Quality - Dynamic compression without perceived quality loss

Time-Shifted Consumption - Download on WiFi, consume on-the-go

Offline-First Architecture - Intelligent pre-caching based on user preferences

Hybrid Content Mix - Text summaries + audio snippets + low-res video thumbnails

Community-Driven Discovery - Peer recommendations vs algorithm-heavy feeds

Sanjha: Youtube Redesigned and Entertainment Superapp for a Data-Conscious Bharat

THE PROBLEM WE'RE SOLVING:

Meet Harpreet. Every morning at 6 AM, he checks his phone hoping yesterday's 500MB data quota downloaded something—cricket highlights, Punjabi songs, farming tips. But most days? The WiFi cut out at midnight. His son already burned through 300MB on cartoons by afternoon. By evening, Harpreet's entertainment time becomes a choice: watch his IPL highlights or save data for tomorrow's urgent calls.

Core Proposition

"Unlimited entertainment, conscious control"

Enabling users to binge, listen, and discover content across all modes without data anxiety.

Product Vision

India's entertainment super-app for the data-scarce user. Seamless video, audio & text, built for shared devices, Indic languages, and an offline-first world.

Product Pillars

Intelligent Offline-First: Move from "user-pull" to "smart-push."
Unified Super App: One app for Video, Music, and Podcasts.
Built for 'We', Not 'Me': Architected for shared-device reality.
Total Data Transparency: Build trust via absolute, simple control.

Key Tradeoffs Addressed

Discovery vs. Data Preloading
Solution: Hybrid feed (70% preloaded relevant content, 30% 'live' trending/request-based). Nudges users to maximize data savings.

Personalization vs. Storage Limits
Solution: Lightweight settings cache and a prioritized local deletion algorithm. Older content is re-compressed.

Engagement vs. Data Consumption
Solution: Auto-play is disabled or downscaled in data-critical mode. Visual cues prompt users about the data impact of every interaction.

A Day in life of Harpreet

6:00 AM - Morning Ritual
Harpreet wakes, plays Gurbani on YouTube (8 MB), checks farming updates (45 MB). 53 MB used, 447 MB remains. Leaves phone home for fieldwork.

7:00 AM - Son's Cartoon Takeover
7-year-old Gurpreet: Chhota Bheem reels, Minecraft videos, dance challenges. 90 minutes of auto-play. 285 MB consumed (57% of 500 MB quota) before 9 AM. No parental cap, no separate profile. 162 MB remains.

11:30 AM - Wife's Kitchen Guilt
Sunita streams Tamil cooking tutorial (140 MB, includes buffering waste). Wants yesterday's serial (250 MB) but only 22 MB left. She tells Harpreet: "आज का डेटा मत उड़ाना" (Don't waste today's data; I need tomorrow's quota). Entertainment deferred, guilt absorbed.

12:00 PM - Impossible Math
Data alert: 478 MB of 500 MB used. Harpreet wants IPL (180 MB), Sunita needs serial (250 MB), son wants cartoons tomorrow (285 MB). Total demand: 715 MB/day. Available: 500 MB/day. Someone loses every day.

1:00 PM – 7:00 PM – Dead Zone
Data alert: 478 MB of 500 MB used. Harpreet wants IPL (180 MB), Sunita needs serial (250 MB), son wants cartoons tomorrow (285 MB). Total demand: 715 MB/day. Available: 500 MB/day. Someone loses every day.

7:30 PM - Evening Sacrifice
Exhausted after 12-hour workday. Wants 20 min IPL. 22 MB left, needs 180 MB. Chooses duty over desire. Watches nothing. Again.

Quality vs. Accessibility
Solution: Adaptive bitrate ensure the lowest possible data use. Users can set preferred defaults by activity type.

Family Collaboration vs. Privacy
Solution: Each profile controls its own sharing level and privacy settings. Sharing is transparent and only occurs when intended.

"Super App" (Breadth) vs. Depth
Choice: Be a "Jack of all trades, Master of Offline"
Reason: We win on the *convenience of integration* and the *reliability of our offline engine*

Priority	Feature	Impact
MUST HAVE (P0)	**Smart Pre-Download**	70% data saved; entertainment decoupled from connectivity
	Sanjha Profiles	Family conflict eliminated; 2.3 profiles/device
	Audio-First Mode	90% data savings; multitasking enabled
	Data Budget Hub	Eliminates data anxiety; user trust established
	Video Compression	3 videos for price of 2; 30-50% file size reduction
SHOULD HAVE (P1)	**Offline Peer Sharing**	40% users share monthly; organic growth loop
	Regional Dubbing	Tamil/Telugu/Punjabi content accessible; retention driver
	Collaborative Playlists	35% content diversity increase; social feature
	Smart Storage Mgmt	4-6GB library manageable; removes barrier
COULD HAVE (P2)	**Premium Tier (₹49/mo)**	₹40/month ARPU; revenue generation post-MVP
	Learning Hub	190M student market; future expansion
	Theme Customization	User satisfaction boost; post-MVP polish

Viral Growth Loops

User downloads content → **Friends discover app** → **2 more friends install** → **Shares with 3 friends via Bluetooth** →

Loop 1: Offline Sharing

User creates family profiles → **Adds family members** → **Each members discover value** → **2 more friends install** → **Word-of-mouth to other families** →

Loop 2: Family Profiles

More creators join → **Creators upload** → **Users download offline** → **Analytics show reach** → **Creators promote Sanjha** → **Followers install** →

Loop 3: Regional Content Creators

Phased Rollout

Pilot
Punjab + Hariyana
0–3 Months
10K DAU, <200MB/day

Early Growth
4–9 Months
Hindi/Tamil/Telugu belts
500K DAU, K-factor >1.2

Monetization
15-18 Months
Nationwide; OEM pre-installs (Jio/Realme)
100M users

Regional Scale
10-15 Months
12 Indic languages; OTT partnerships
10M MAU, 80% regional content

Monetization Strategy

Stream	Model	Pricing	% Revenue
Freemium (Ad-Supported)	480p, lightweight ads	Free	45%
Premium Tier	720p, ad-free, early access	₹49/month	25%
Telecom Bundles	Sanjha data quota in ₹199/499 packs	Revenue share	10%

SUCCESS METRICS & NORTH STAR

North Star	MAU consuming <200 MB/day average	Monthly active users who consume less than 200 MB/day	100 million MAU	18 months
L1	Smart Pre-Download Adoption	% of users with >20 Shorts ready each day via Smart Pre-Download	80%	
	Daily Active Profiles per Device	Average number of profiles actively used on each device	2.3	12 months
	Average Data Consumption per User	Mean daily data usage per user (should stay <200 MB)	<200 MB/day	Ongoing
	% Content Consumed Offline	Proportion of content viewed from pre-downloaded/offline vs. streamed	100 million MAU	12 months
	Retention Rate (Day 30)	% of users active 30 days after installation	60%	6 months
L2	User Checks "Good Morning" Feed	% of users who open app within 1 hour of waking	80%	12 months
	Regional Language Penetration	% of users consuming content in 2+ Indic languages	80%	Ongoing
	Family/Peer Sharing Engagement	% of users sharing content offline with others at least monthly (peer viral loop)	40%	12 months

Distribution Partnerships

Partnership	Strategy	Impact
Telecom Operators (Jio, Airtel, Vi)	Bundle Sanjha with "Entertainment Packs" - 20% data quota specifically for Sanjha app	150M existing budget plan users
Phone Manufacturers (Xiaomi, Realme, Samsung)	Pre-install on 8K-12K phones (80% of market) with first-time setup tutorial	180M annual phone sales
OEM Partnerships (TVF, FilterCopy, Creators)	Exclusive early uploads for Sanjha users; co-marketing campaigns	50M+ combined follower base

Key Risks & Mitigation

Risk 1: Users don't trust auto-download
Mitigation:
Transparent onboarding: "We'll download 50 Shorts (150MB) tonight on WiFi. Change anytime." Visual dashboard showing exactly what's downloaded and why. Easy pause/resume, undo options
Fallback:
Manual download mode with smart recommendations

Risk 2: Regional content licensing fragmentation
Mitigation:
Partner with regional OTT platforms (Aha, Hoichoi, Sun NXT) for content sharing agreements
Incentivize independent creators with analytics + revenue share
User-generated content doesn't require licensing
Fallback: Start with YouTube's existing licensed library, expand gradually

Risk 3: Network effects don't materialize (K-factor <1)
Mitigation:
Gamification: "Data Saver Champion" badges, leaderboards for peer sharing Referral incentives: 100MB bonus per 5 friends introduced,Community features like Group Watch Mode to drive social engagement
Fallback:
Increase paid acquisition budget, focus on organic retention over viral growth

Risk 4: Monetization resistance (users expect free)
Mitigation:
Freemium model: Free tier is fully functional, premium adds convenience (no ads, 720p, higher quota)
Positioning: "Support creators directly" messaging for premium
Gradual rollout: Monetization only after Month 12 when user trust is established
Fallback: Rely on ad revenue only, delay premium tier launch

Risk Assessment Matrix

Risk	Probability	Impact	Mitigation Strategy
Low adoption of offline-first behavior	Medium	High	Aggressive onboarding tutorial, incentivize first download with bonus quota, telecom partnerships for WiFi-bundled plans
Storage constraints on budget phones	High	Medium	Smart Storage Management (P1 feature), SD card support, aggressive compression, user education on cleanup
Creator backlash (monetization concerns)	Medium	High	Early revenue share (70/30 split), analytics showing offline reach, premium access for creators, exclusive features
Telecom operator resistance	Low	High	Frame as "data efficiency = happier customers = lower churn," revenue share on premium bundles, co-marketing
Regulatory/copyright issues	Medium	Medium	Partner only with licensed creators, DRM for premium content, clear ToS for peer sharing (non-commercial use only)