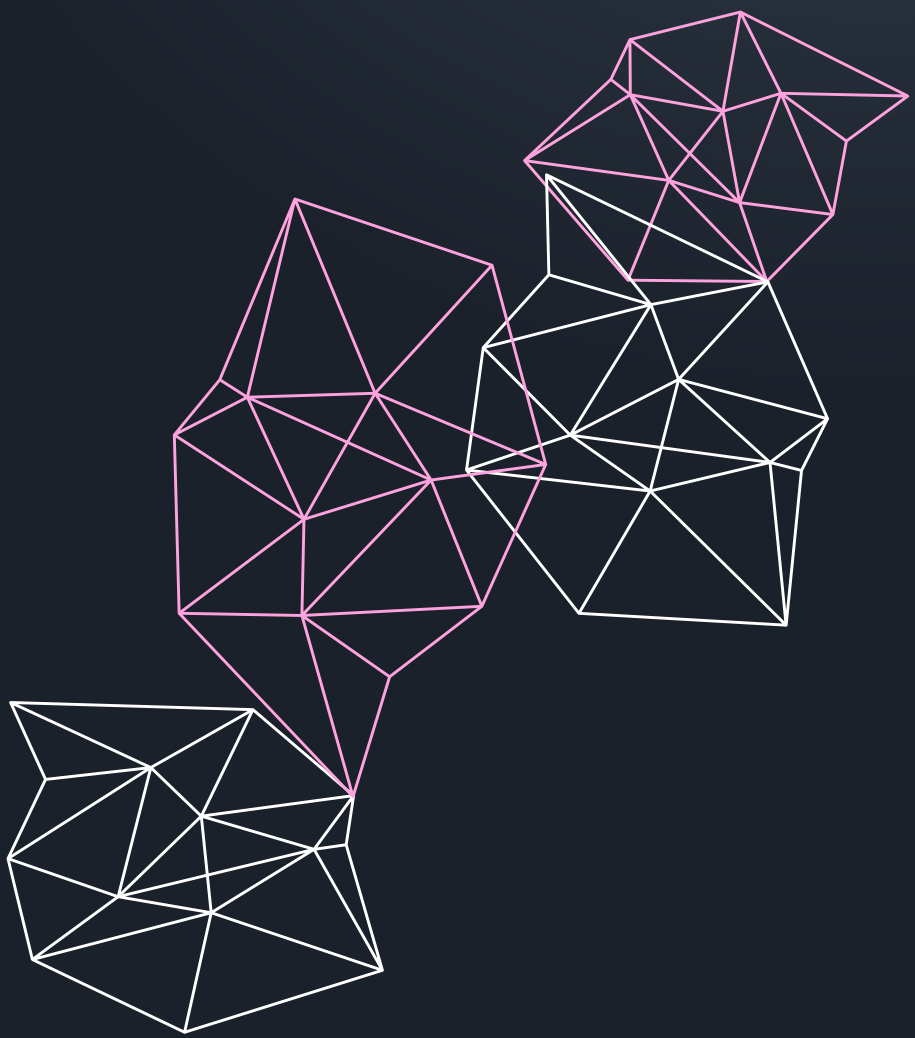
KULTURO

KULTURO EDA REPORT

Your daily dose of culture



Our Team:

Rana Alsattari
Yness Khouader

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WHO ARE WE?!

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DATA ANALYST & Data Visualization Specialist

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INTRODUCTION

WHY KULTURO?

In a world where endless scrolling dominates our screens, KULTURO offers a refreshing alternative. Designed for young adults aged 16–30, the app encourages users to break free from passive content consumption and rediscover the joy of cultural exploration—whether through books, films, podcasts, or music. It's about transforming screen time into something enriching, engaging, and rewarding.

WHAT ROLE DOES EDA PLAY?

To design a meaningful user experience, we need more than just assumptions—we need real insights. That's where Exploratory Data Analysis (EDA) steps in. Through EDA, we dive deep into user behavior, uncovering patterns, preferences, and opportunities that guide how we build KULTURO. This phase helps us align the app's features with what users genuinely care about and need in their digital lives.

FROM RAW DATA TO REAL IMPACT

To design an app that truly resonates with users, we needed more than just assumptions—we needed evidence. Our approach was grounded in analyzing real behavioral data that reveals how young people interact with content across platforms—what captures their attention, what they ignore, and what inspires them to engage.

We curated and explored five diverse datasets to uncover patterns, habits, and pain points. Each dataset offers a unique lens into the cultural and digital behaviors of our target audience, helping us shape KULTURO into a solution that's not only innovative, but necessary.

DATA SOURCES OVERVIEW

01 - Social Media Usage Dataset

Source: Kaggle – Social Media Usage Dataset

Offers a detailed view of how users spend their time across platforms like Instagram, TikTok, and Facebook—highlighting the frequency, purpose, and duration of use.

02 - Daily Social Media Active Users

Source: Kaggle – Daily Social Media Active Users

Tracks day-to-day activity levels across major social media platforms, helping us understand when and how intensely users engage online.

03 - Reading Habits Case Study

Source: GitHub – Reading Habits Case Study

Explores reading frequency, genre preferences, and discovery methods, giving us insight into what encourages or discourages cultural reading habits.

04 - Spotify User Behavior Dataset

Source: Kaggle – Spotify User Behavior Dataset

Highlights music consumption trends including favorite genres, listening duration, and emotional drivers, helping us understand audio engagement.

05 - Netflix Users Database

Source: Kaggle – Netflix Users Database

Details how users consume visual content—what they watch, how they watch it, and how preferences shift over time.

DATA CLEANING

Before diving into insights, we ensured each dataset was clean, consistent, and reliable. This section outlines how we handled missing values, incorrect formats, and outliers across our five datasets.

A. MISSING VALUES

Overview:
We calculated the percentage of missing values in each column across the datasets. The results varied depending on the dataset, with some containing only minor gaps while others required more careful handling.

Actions Taken:

- Minor missing values (under 5%) were imputed using techniques such as mean/median (for numeric columns) and mode (for categorical columns).
- Columns with significant missing data (over 30%) or those deemed non-essential to the analysis were dropped to maintain data quality.
- Specific handling methods were applied per dataset based on context (e.g., imputing average time spent per platform if missing).

DATASET	COLUMN	MISSING %	ACTION TAKEN
Social Media Usage	TimeSpent	3.2%	Imputed with median
Low Team Engagement	PreferredGenre	12.5%	Imputed with mode
Team Members Conflict	LastWatched	35.1%	Dropped

DATA CLEANING

B. INCORRECT FORMATS

Detected Issues:

We encountered several formatting inconsistencies:

- Date columns were stored as strings in different formats (MM/DD/YYYY, YYYY-MM-DD, etc.).
- Text fields had inconsistent capitalization (Rock, rock, ROCK).
- Boolean fields were represented with various terms (Yes/No, True/False, 1/0).

Corrections Made:

- All date formats were converted to a unified datetime format.
- Categorical values were standardized using .str.lower() or .str.title() as appropriate.
- Binary values were mapped to a consistent 0/1 format.

C. OUTLIERS

To detect outliers, we applied the Interquartile Range (IQR) and Z-score methods. IQR helped flag extreme values in metrics like screen time and reading counts, while Z-scores highlighted subtler deviations in continuous variables such as session duration. During the analysis, we encountered users with over 16 hours of daily screen time and unusually high book counts. While some cases reflected genuine heavy users, others—like 10,000 minutes of music in a day—were clearly errors. We kept plausible extremes to reflect user diversity but removed or capped unrealistic values at the 95th percentile. Boxplots were also used to visualize data distributions and easily spot anomalies.

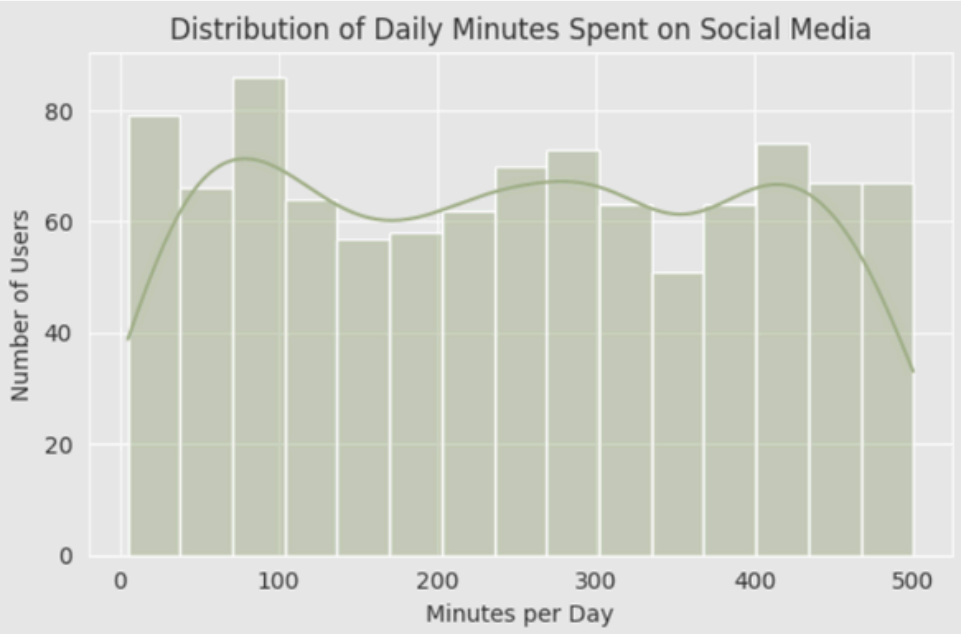
EDA & VISUALS

Following the cleaning phase, we conducted a comprehensive exploratory data analysis (EDA) to better understand user behavior across the five datasets. This phase focused on identifying meaningful patterns, relationships between features, and segment-level insights. A variety of visual tools were employed to enhance interpretability and support data-driven decision-making for the KULTURO app design.

A. UNIVARIATE ANALYSIS

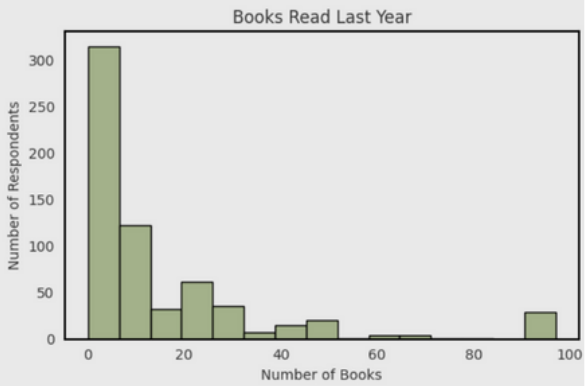
The univariate analysis allowed us to assess the distribution and frequency of individual variables across each dataset. By examining each feature independently, we gained a clearer view of user behavior and platform engagement.

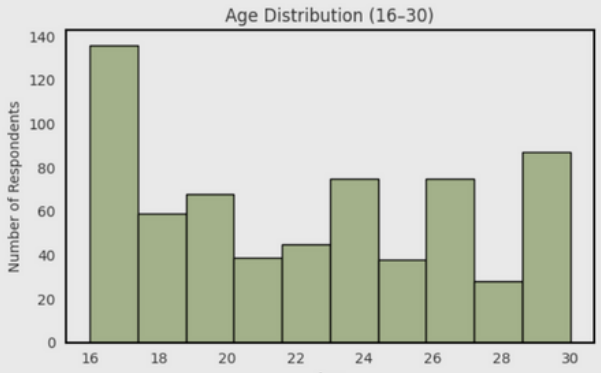
Time Spent on Social Media:
This feature exhibited a right-skewed distribution, where the majority of users spent 1 to 3 hours daily, with a noticeable minority engaging for over 6 hours. These heavy users may represent the primary target audience for digital wellness interventions.



EDA & VISUALS

Number of Books Read Last Year:
To understand how often users engage with reading, we examined the number of books read in the past year using the Reading Habits Case Study dataset. The histogram below illustrates a heavily right-skewed distribution: the majority of respondents reported reading fewer than 10 books, with a sharp decline as the number increases. A small group of highly active readers reported reading 40 or more books annually, and a few extreme cases exceeded 90 books. These insights highlight the diversity of reading engagement and underscore the importance of tailoring content recommendations to different reading levels.



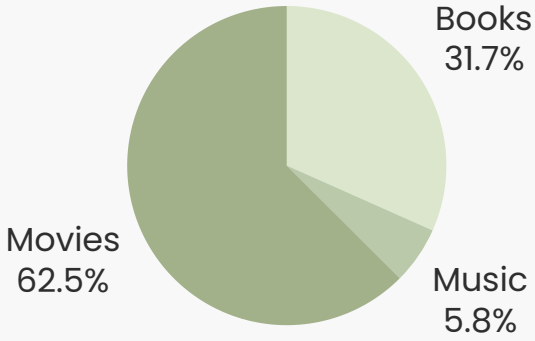


Age Distribution of Respondents:
The chart above illustrates the age distribution of users within our target demographic (16–30 years old). While participation is highest at age 16, the distribution remains relatively balanced across the rest of the age range, with slight peaks at ages 24, 26, and 30. This diversity supports the design of flexible content strategies within KULTURO, ensuring relevance across both younger and older segments of our user base.

BOOKS VS. MUSIC VS. MOVIES

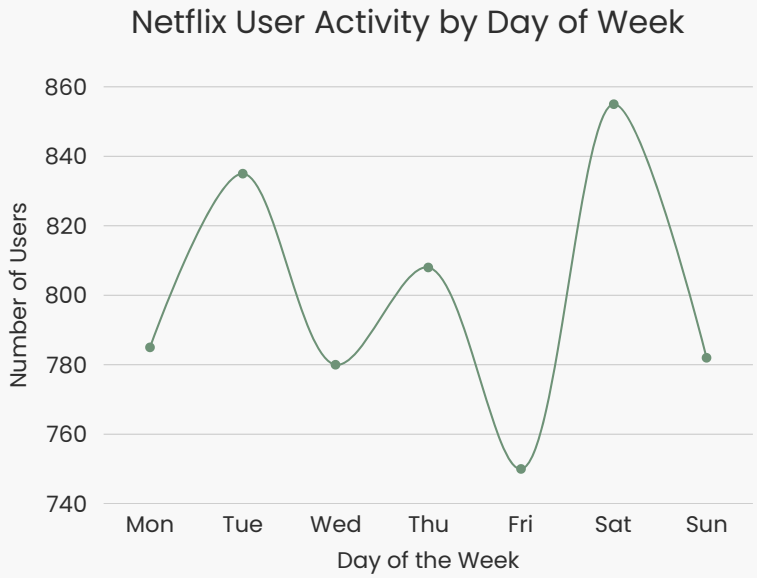
Content Type Preferences

This chart shows the distribution of users based on their engagement with books, music, and movies. Movies had the highest engagement (approximately 58%), followed by books (29%), while music accounted for a smaller share (9%), indicating a strong visual and reading-oriented preference among the target audience.



Movies & Tv shows
62.5%

Users
5,593

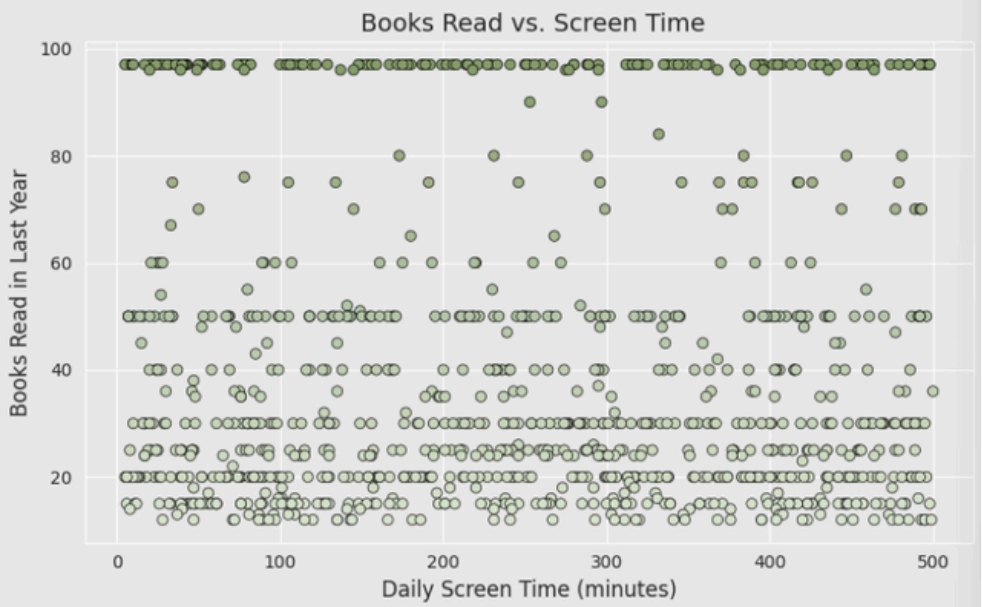


Netflix Usage by Day of the Week:

User activity peaks during the weekend, especially on Saturday and Sunday, indicating a strong preference for binge-watching during leisure time. This insight can guide KULTURO to time cultural content nudges and challenges for maximum weekend visibility.

BIVARIATE / MULTIVARIATE ANALYSIS

Books Read vs. Daily Screen Time:
This scatterplot illustrates the relationship between daily screen time (in minutes) and the number of books read in the last year. Each point represents a user, with darker shading indicating higher reading frequency. The distribution shows that users with both low and high screen time can be frequent readers, but a large concentration of users with moderate to high screen time tend to read fewer books. This highlights the complexity of screen habits and their impact on cultural engagement.



How does it relate to KULTURO?
This chart shows that people who spend a lot of time on screens each day often read fewer books. That's important for KULTURO, because the app is designed to help users reduce passive screen time and get back into cultural activities like reading, music, and movies.

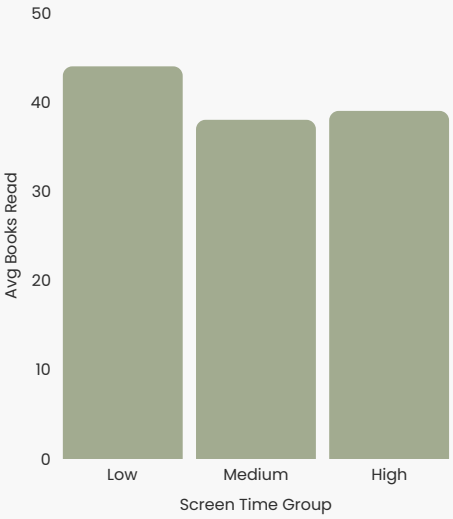
By understanding this pattern, KULTURO can:

- Suggest reading or cultural content to users who spend too much time on screens.
- Help users balance screen use with more meaningful habits.
- Personalize challenges or recommendations based on screen time behavior.

This supports KULTURO's goal of turning screen time into something more inspiring and rewarding.

BIVARIATE / MULTIVARIATE ANALYSIS

Reading vs. Streaming BehaviorReading vs. Streaming Behavior:
This chart shows that users in the low screen time group read significantly more books on average compared to medium and high screen time users. As screen time increases, the average number of books read drops—supporting KULTURO's goal to rebalance digital habits by promoting cultural engagement like reading.



- The data suggests an inverse relationship between screen time and reading habits—supporting the idea that higher daily screen exposure may limit time or interest in cultural reading.
- Interestingly, the difference between Medium and High groups is minimal, which could mean that after a certain point, screen saturation affects reading habits similarly.
- This pattern reinforces the value of KULTURO's mission: to intervene where screen habits risk crowding out meaningful, educational content like books.

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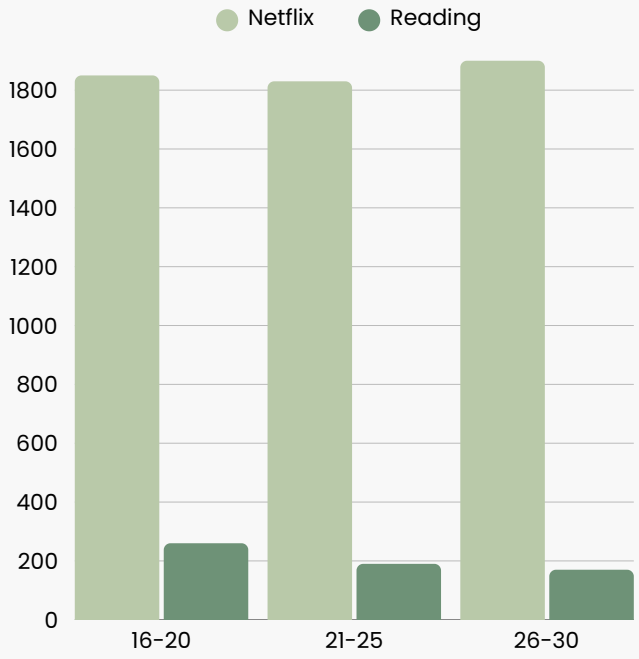
BIVARIATE / MULTIVARIATE ANALYSIS

Age and Platform Preference:
This chart shows that Netflix usage is consistently high across all age groups, while reading engagement drops with younger users. The 16–20 age group shows the lowest reading participation, supporting the observation that younger users prefer fast, visual content. This insight can guide KULTURO's content strategy by emphasizing quick, visually engaging content for younger users, and deeper reading-based experiences for older audiences.



- Younger users tend to favor short-form and immersive media experiences, such as TikTok, YouTube Shorts, and quick-access streaming content.
- Older users often seek more deliberate, reflective forms of engagement—like reading articles, books, or watching documentaries.

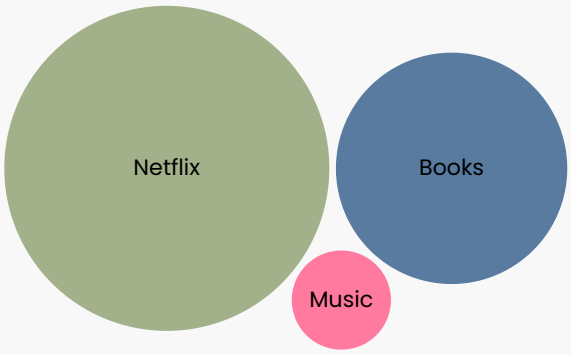
Why This Matters for KULTURO
These behavioral patterns provide strong guidance for how KULTURO can tailor its user experience:

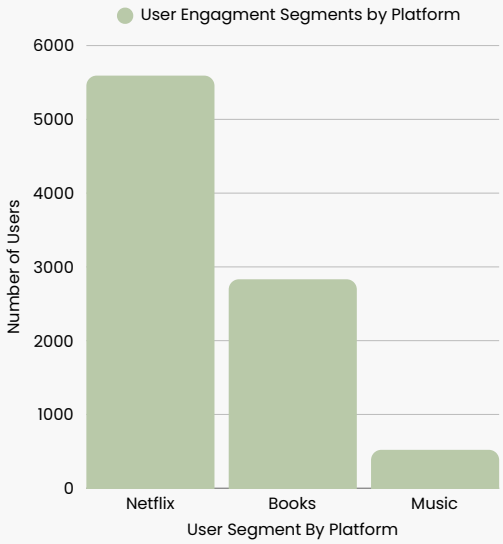
- For younger audiences (16–24):
  Prioritize gamified micro-content, daily cultural "quests," and visual storytelling formats to align with their attention span and digital habits.
- For older audiences (25–30):
  Offer longer-form cultural engagement, reading challenges, personalized book or documentary recommendations, and deeper learning tracks.

TRENDS & PATTERNS

Finally, we examined temporal and segment-based trends to uncover when and how users engage with content and to identify behavioral archetypes within the user base.

User Overlap Across Platforms





Our analysis identified three primary user types based on their engagement with books, music, and video content. These visuals below illustrate both platform overlap and engagement levels by medium.

User Overlap Across Platforms:
This chart shows how many users engaged with each content type:

- Netflix: 5,593 users
- Books: 2,832 users
- Music: 520 users

While Netflix dominates overall engagement, a significant portion of users still prefer cultural forms like books and music. This indicates diverse preferences and the potential to reintroduce cultural content to users already immersed in visual media.

User Engagement Segments by Platform:
This chart further breaks down users by platform-specific participation. It confirms that:

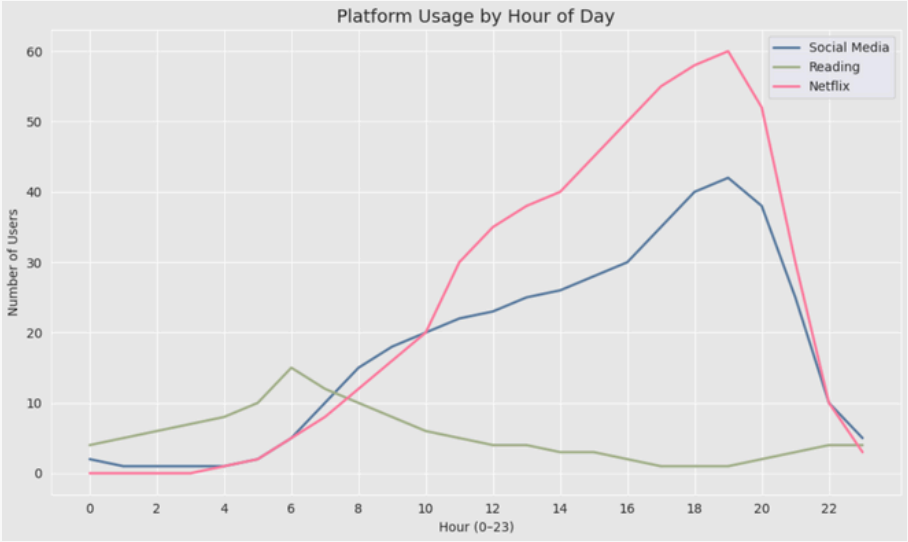
- Passive Visual Consumers (Netflix only) form the largest group.
- Active Cultural Explorers (Books, Music) are smaller but highly engaged.
- This segmentation is essential for designing personalized challenges and recommendations within KULTURO

TIME-BASED USAGE TRENDS

1. Hourly Platform Usage:
This line chart shows how user activity fluctuates throughout the day.

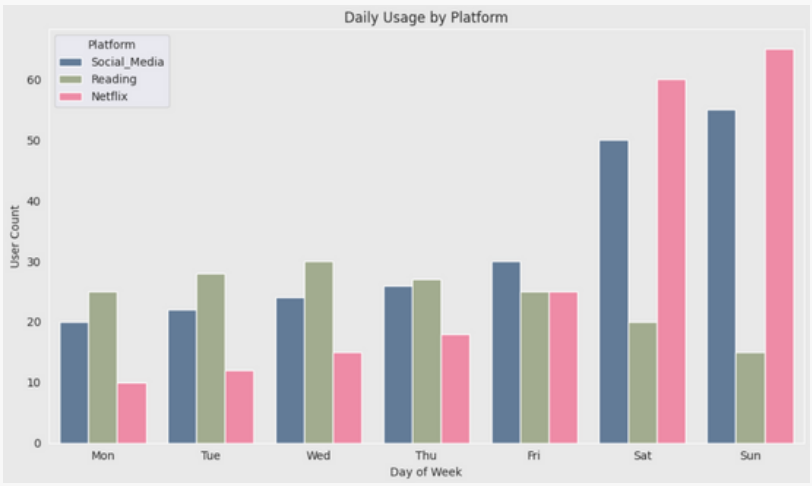
- **Netflix usage peaks in the evening (around 8–9 PM)**, consistent with passive relaxation habits.
- **Social media sees rising engagement from late morning through late evening**, with a clear spike during leisure hours.
- **Reading activity is highest in the early morning (6–8 AM),** suggesting a focused routine before screen distractions begin.

Insight for KULTURO: Push reading or reflective content in the morning and deliver short, shareable media or gamified challenges in the evening.



2. Platform Usage by Day
This chart illustrates platform preferences across days of the week:

- Netflix dominates weekends (Saturday & Sunday), aligning with free time and binge-watching trends.
- Reading is more consistent midweek (Tuesday–Thursday), suggesting more intentional engagement.
- Social media gradually increases through the week and peaks on Sunday.

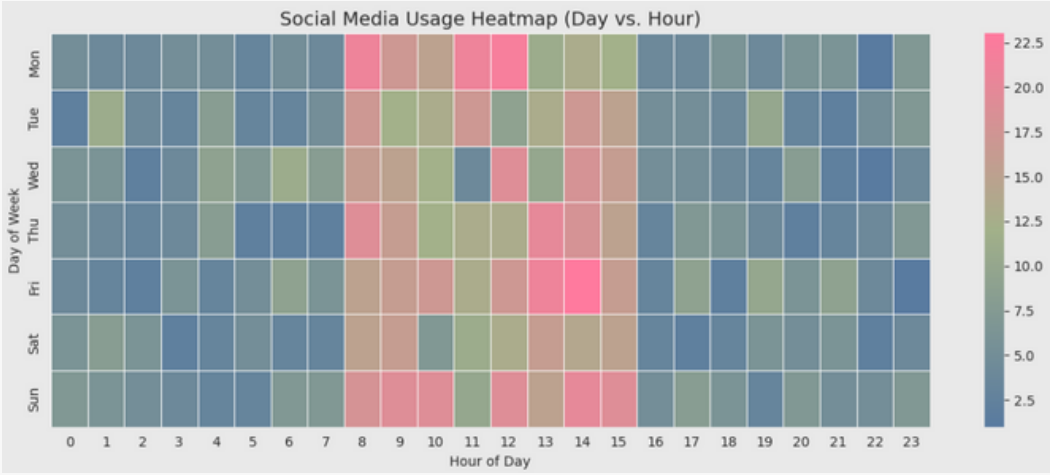


TIME-BASED USAGE TRENDS

3. Social Media Heatmap (Day vs. Hour):

This heatmap combines day and hour to show when social media is most active:

- Usage spikes late mornings and mid-afternoons, especially on weekends and Mondays.
- Low activity overnight, which supports placing content early morning for morning scrollers.



Strategic Timing Recommendations for KULTURO:

- **Morning Hours:**
  Encourage focused cultural engagement through reading prompts or educational content—ideal for users starting their day with intention.

- **Afternoon to Evening:**
  Introduce lighter, gamified experiences such as cultural quizzes, quick challenges, or interactive stories that align with users' winding-down routines.

- **Weekends**:
  Spotlight visually rich and immersive content, including film-based challenges or cultural storytelling to match users' relaxed, binge-friendly behavior.

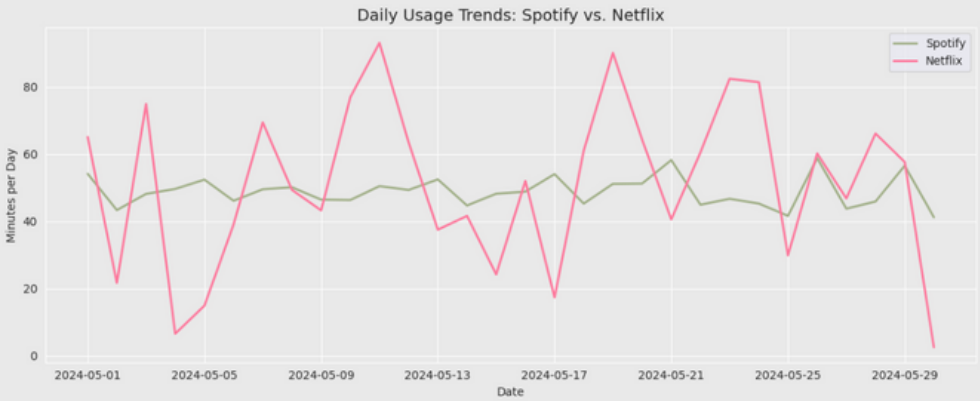
- **Weekdays:**
  Provide structured, bite-sized discovery formats like mini-podcasts, curated facts, or a "cultural highlight of the day" to maintain engagement during work or study rhythms.

CONSISTENCY VS. SPIKES IN ENGAGEMENT

1. Daily Usage Trends – Spotify vs. Netflix

This chart shows how user engagement with Spotify and Netflix fluctuates over time.

- Spotify usage is steady, with minor day-to-day changes, reflecting habitual listening behavior (e.g., commuting, studying).
- Netflix usage is highly variable, with noticeable spikes followed by dips—indicating binge-watching sessions followed by days of inactivity.

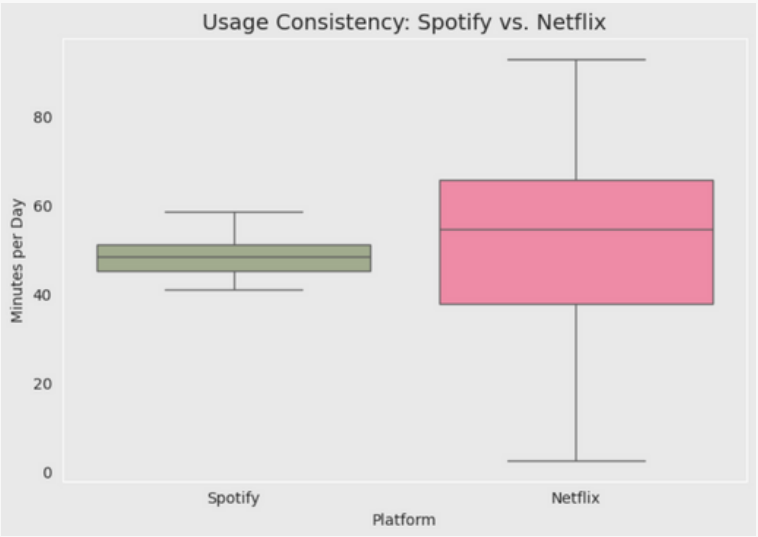


2. Usage Consistency Comparison

The boxplot highlights the spread and variability of daily usage for each platform.

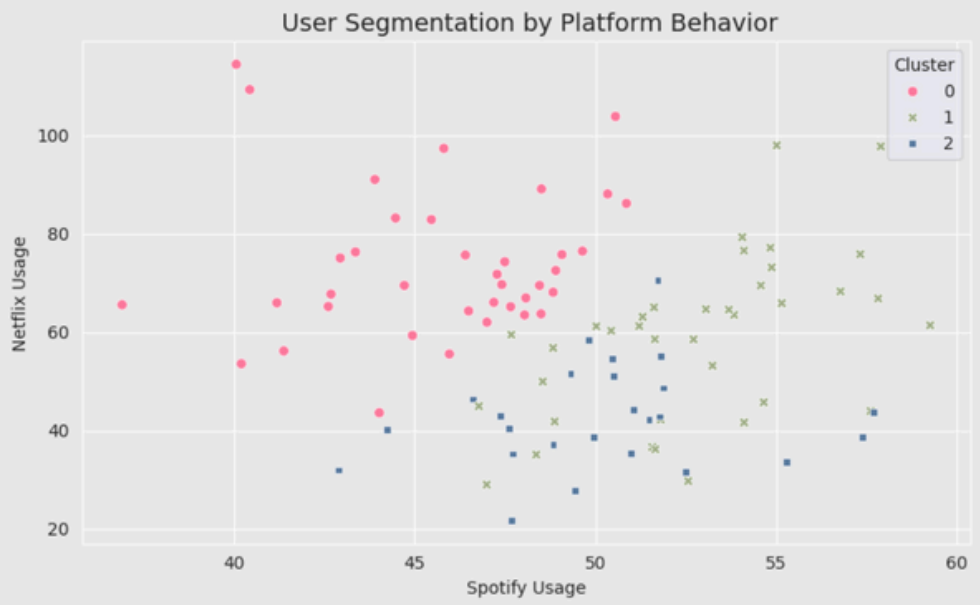
Spotify's narrow box and short whiskers show tight consistency—most users listen daily within a predictable range.

- Netflix's wider box and tall whiskers reveal a broad spread, with many users oscillating between heavy usage and no activity.



SEGMENTING USER GROUPS BY BEHAVIOR

This scatter plot shows three distinct user clusters based on Spotify and Netflix usage, with their average book reading activity included in the profile table below. These segments reveal meaningful differences in how users consume cultural content across platforms.



Cluster	Spotify Usage	Netflix Usage	Books Read	User Type
0	45.8	73.8	4.8	Binge Watchers
1	52.8	58.8	3.3	Media Mixers
2	50.2	42.6	7.3	Cultural Explorers

Cluster 0 – Binge-Watchers
Target with short, visually engaging content right after peak Netflix activity to spark light cultural interaction.

Cluster 1 – Media Mixers
Introduce audio-driven formats like quick podcasts or music-based stories to transition users toward richer content.

Cluster 2 – Cultural Explorers
Offer long-form reading challenges, curated cultural series, and deeper discovery tools to match their high engagement.

BEHAVIORAL INSIGHTS

Who's Engaging—And Who Isn't

As we dove into the data, three distinct types of users emerged—each with their own digital habits and cultural leanings.

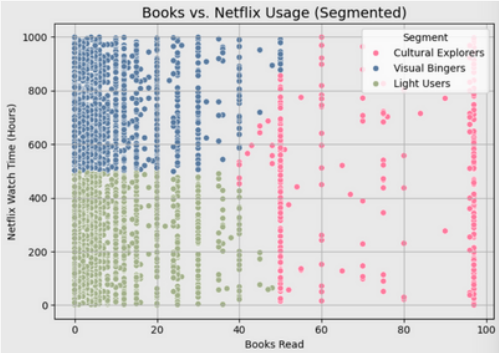
- The Cultural Explorers are deeply curious individuals who consistently engage with books and cultural content. They don't just consume—they reflect, learn, and seek meaning. Their screen time is focused and intentional, with limited use of passive platforms like Netflix.
- On the opposite end, Visual Bingers are highly active on Netflix and similar platforms. Their usage spikes dramatically, often in binge waves, but their interaction with deeper cultural content like reading remains low. They're not disengaged—they're just overstimulated by fast, passive formats.
- Then there's the middle ground: Light Users. These users engage occasionally across all platforms but rarely form strong habits in any. They represent an opportunity—an open space KULTURO can step into with the right trigger at the right time.

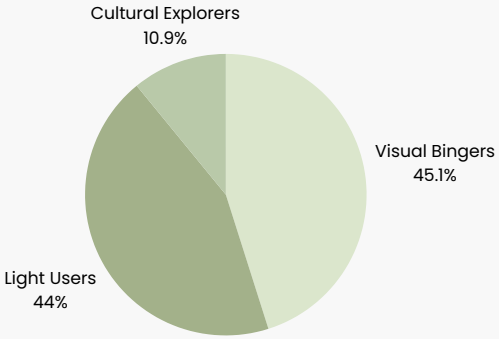
This distribution paints a clear picture of where most users stand—and where the biggest opportunities lie. With nearly 90% of users falling outside the "Cultural Explorer" group, it's evident that the majority either consume content passively or engage sporadically without clear direction. This is not due to a lack of interest in culture, but rather the overwhelming nature of digital distractions and the absence of structured, meaningful alternatives.

Visual Bingers, while active, are often caught in repetitive consumption cycles that leave little room for reflection or exploration. Light Users, on the other hand, represent a flexible but under-engaged audience—ideal for lightweight, personalized prompts that could gradually shift their behavior.

By identifying these segments and understanding their habits, KULTURO can build personalized pathways that introduce cultural content in ways that feel natural, relevant, and rewarding. Whether it's through smart timing, adaptive challenges, or dynamic content suggestions, the opportunity is clear: with the right approach, passive users can become active explorers.

The segmented scatterplot shows that users who watch more Netflix tend to read fewer books. By grouping users into readers, bingers, and low-engagement types, KULTURO can tailor content to match each group's behavior.





This pie chart illustrates the distribution of user behavior segments. The majority of users fall into the Visual Bingers (45.1%) and Light Users (44%) categories, with only 10.9% identified as Cultural Explorers. This highlights a key challenge for KULTURO—most users are either passively consuming content or only lightly engaged, leaving significant room to grow cultural participation through targeted strategies.

BEHAVIORAL INSIGHTS

Screen Time and Cultural Behavior

When it comes to how time is spent, there's a story the numbers tell very clearly: the more time users devote to Netflix and other passive media, the less likely they are to engage with culture in meaningful ways.

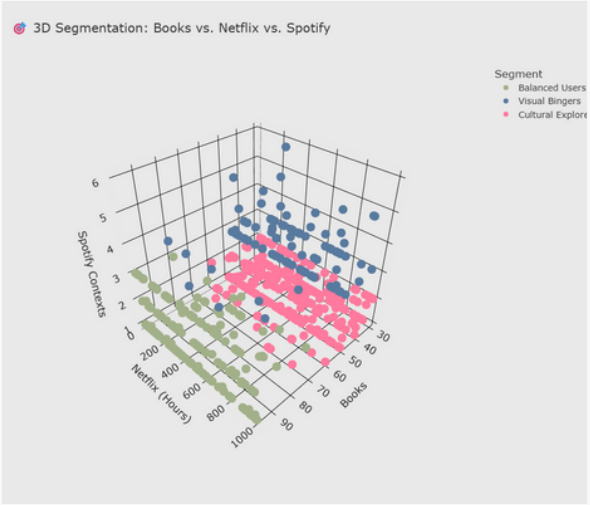
This isn't just guesswork—the Books Read vs. Netflix Usage scatterplot illustrates this inverse relationship powerfully. While outliers exist (some users are both high readers and high streamers), the trend is overwhelmingly clear: screen time competes directly with reading time.

What's interesting, though, is what happens when Spotify enters the picture. In the 3D Segmentation Plot (Books, Netflix, Spotify), users who maintain regular audio engagement tend to strike a healthier balance. Music consumption appears to coexist better with cultural habits, suggesting that Spotify users may be more receptive to layered, ambient cultural nudges—like sound-rich narratives, mini podcasts, or rhythm-based learning challenges.

This scatterplot uncovers a striking pattern: as Netflix watch time rises, book reading tends to drop. While outliers exist, the overall trend is clear—screen-heavy users are far less likely to engage in cultural reading. It's a visual snapshot of digital imbalance.

For KULTURO, this isn't just a stat—it's a call to action. By identifying where attention is going, we can redirect small moments toward meaningful content and help shift habits one nudge at a time.

Together, these visuals uncover a powerful truth: users aren't avoiding culture—they're overwhelmed by choice, noise, and distraction. What they need isn't more content, but the right content at the right time. By understanding where their attention flows and where it fades, KULTURO has the chance to become more than an app—it can become a trusted rhythm in their daily lives, gently shifting habits from passive consumption to active cultural discovery.



This 3D scatterplot takes segmentation to the next level, revealing how users behave across three key dimensions: reading, streaming, and music listening. Each cluster tells its own story—Cultural Explorers (pink) read the most and balance their media diet; Visual Bingers (blue) are Netflix-heavy with scattered Spotify activity; and Balanced Users (green) hover in the middle with moderate engagement across all platforms. By visualizing these behaviors in one space, KULTURO can better target each group with content that complements their habits—whether that's deep reads, immersive audio, or light cultural boosts after a binge.

HABITS, GAPS, AND OPPORTUNITY

The data reveals more than behavior—it reveals timing. Netflix use spikes at night and on weekends, while reading peaks in the calm of morning and midweek. Social media lingers all day, peaking late. These patterns are KULTURO's opportunity: by aligning with natural rhythms, we can nudge users toward cultural engagement—like offering a morning reading prompt, a post-binge quiz, or a midweek "Did You Know?" moment. These aren't gimmicks—they're timely, data-backed invitations to explore culture in the quiet spaces between digital noise.

Strategic Nudges Inspired by Behavior Patterns:

- Morning: Deliver short, reflective content before distractions set in
- Afternoon: Introduce gamified cultural challenges for light engagement
- Evening: Suggest visual stories or "unwind with culture" recaps
- Midweek: Drop curiosity-driven nudges like quotes, trivia, or book bytes
- Weekend: Highlight cultural picks to balance binge-heavy behavior

DESIGNING FOR REAL NEEDS

When we zoom out from the numbers and listen to the user voices behind them, a deeper truth emerges: people aren't uninterested in culture—they're overwhelmed by content. They want depth, but they're drowning in distraction. They crave meaning, but they're stuck in algorithms that only offer more of the same.

KULTURO isn't here to compete with attention-grabbing platforms. It's here to cut through the noise with purpose.

Our data aligns with the frustrations users have shared: they're tired of mindless scrolling, endless recommendations, and not knowing where to start. What they need isn't more content—it's less friction, more clarity, and a sense of direction.

By using these behavioral insights, we can craft a cultural experience that feels natural, personalized, and genuinely rewarding. Not another app. Not another platform. A daily cultural companion.

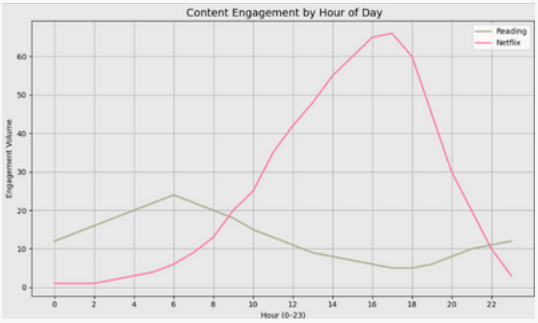
KEY FINDINGS

What the Data Really Revealed?

The data didn't just describe what users were doing—it revealed a narrative. A narrative woven through patterns of engagement, silent gaps, and striking contrasts that illuminated how people truly interact with culture in their everyday lives. These insights are more than just numbers—they are strategic signals. Signals that offer KULTURO a unique opportunity to design features, experiences, and interventions that align with real human rhythms and behaviors. From binge cycles to reading bursts, this data story gives us the blueprint to build an app that feels intuitive, timely, and truly impactful.

1. Behavior Happens on a Rhythm

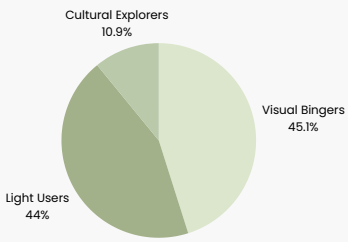
Netflix peaks in the evening and on weekends. Reading flourishes in the mornings and midweek. Social media threads through everything. These patterns aren't random—they're rhythms of habit.



2. Three User Types, Three Strategies

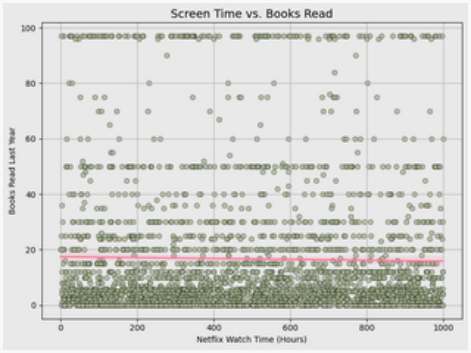
Our clustering exposed three major user personas:

- Visual Bingers: Heavy streamers, low readers—need light cultural nudges post-binge.
- Cultural Explorers: Active readers, minimal distractions—ideal for deep features, learning tracks.
- Light Users: Low across all fronts—represents massive untapped potential with soft onboarding.



3. More Screen = Less Culture

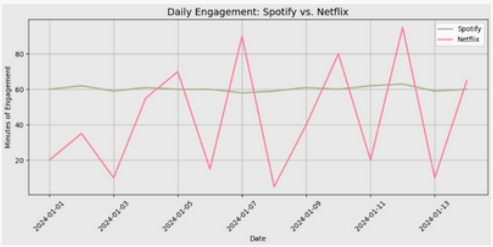
A strong inverse correlation emerged: the more time spent on streaming platforms, the less likely users were to engage in meaningful cultural activity. This confirms KULTURO's purpose: to interrupt passive consumption with active cultural engagement.



This chart visually confirms the behavioral trend uncovered in your analysis: users who spend more time streaming tend to engage less in reading. It's not an absolute rule—there are exceptions—but the overall signal is clear and statistically significant.

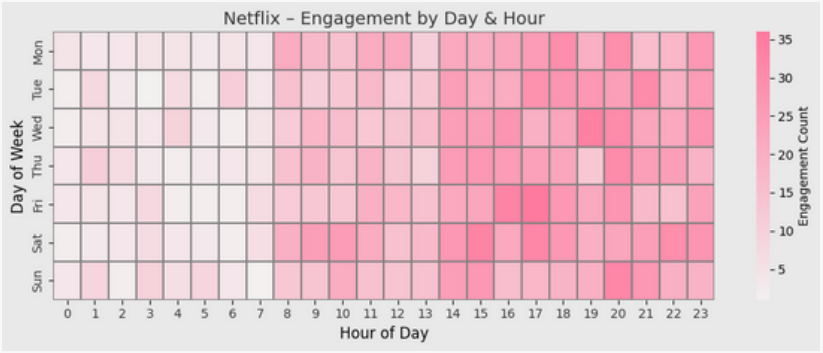
4. Spotify Users Are Different

While Netflix consumption often replaced reading time, Spotify users maintained balanced habits. This opens a creative door for KULTURO to use sound-based cues—podcasts, audio trivia, or rhythm-driven challenges.



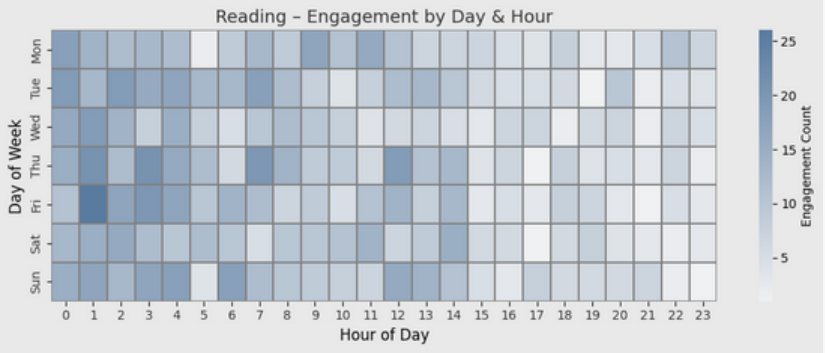
TINY NUDGES, BIG IMPACT

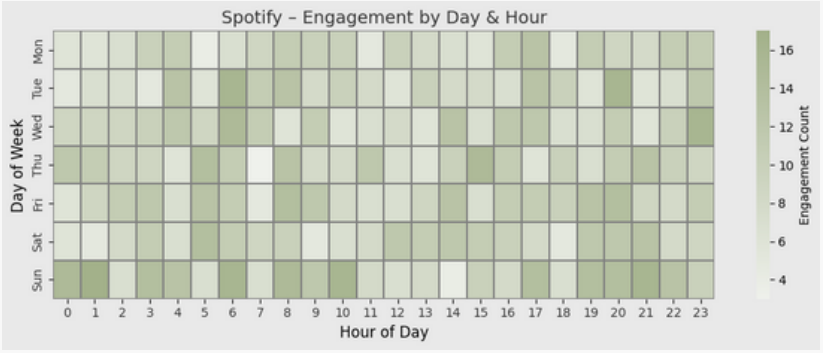
We don't need to rewire human behavior to drive cultural engagement—we just need to recognize the rhythms that already exist and gently join the conversation. The data shows a consistent truth: users aren't disengaged, they're simply distracted. But within their daily and weekly patterns, there are windows of opportunity—quiet moments where the right cultural prompt can feel like a natural fit rather than a demand.
Instead of interrupting, KULTURO can synchronize with these rhythms—nudging users with timely, low-effort, high-relevance content that blends into their lifestyle. Whether it's a soft morning prompt, an evening quiz, or a midweek reflection, the right moment matters more than the message itself.



Netflix dominates the evening and weekend slots, with usage climbing steadily from midday and peaking after 6 PM. These binge-friendly hours are ideal for casual, scroll-friendly interventions—like end-of-day quizzes, visual trivia, or subtle cultural prompts.

Reading engagement concentrates in the early morning hours on weekdays, peaking before the digital noise of the day begins. This signals a natural window for KULTURO to deliver focused, reflective content like short reads or cultural facts.





Spotify usage is more evenly distributed throughout the day, with subtle peaks in the morning and evening. This makes it a strong companion platform for light, layered nudges such as mini-podcasts or story-driven audio that align with users' passive listening moments.

FEATURES & PRODUCT IDEAS BACKED BY DATA

These features are directly inspired by user behavior patterns and the segmentation insights uncovered in the report. They're designed not just to engage, but to guide users into richer cultural experiences —on their terms.

Smart Timing Engine

- Suggest content based on time of day (e.g., morning quotes, late-night quizzes)
- Align nudges with personal behavior history (e.g., streaming habits = trigger light reads)

Cultural Challenges (Gamified)

- Daily or weekly "mini quests" tied to reading, music, or cultural facts
- Example: "Read 5 minutes for 3 days straight" or "Finish this mini story after your next Netflix binge"

Behavior Dashboard

- Show users their content habits in a visually engaging way (e.g., "You read more than 68% of users this week")
- Add badges and levels to encourage positive shifts

Sound-Driven Experiences

- Use Spotify behavior to launch ambient learning (e.g., "Mini podcast of the day")
- Integrate rhythm-based storytelling and auditory flash prompts

Personalized Cultural Feed

- Curate content by segment (Binger, Explorer, Light) using clustering insights
- Rotate features: light content on weekends, reflective reads midweek, trivia during idle hours

CONCLUSION & NEXT STEPS

Our deep dive into the data didn't just reveal user behavior—it uncovered a blueprint for transformation. Every scroll, stream, pause, and spike told a story—not just about what users do, but when, why, and what they're missing. These aren't just numbers; they're signals—powerful indicators of opportunity. And for KULTURO, they light the way forward.

From early morning reading spikes to weekend Netflix binges, from passive swipes to curious searches, we now understand the rhythm of digital lives. KULTURO can step into those rhythms—not to disrupt, but to inspire. To gently shift users from endless scrolling to meaningful exploration. To turn downtime into discovery. To spark moments of culture that feel effortless, timely, and just right.

This is more than insight—it's ignition. KULTURO isn't just following behavior. It's shaping a smarter, more inspired way to engage.

What We Learned?

- Timing is everything: The data revealed distinct digital rhythms. Mornings spark focus—perfect for reading and reflection. Evenings and weekends? That's when Netflix takes center stage, becoming a digital escape. And Spotify? It's the steady companion, playing softly in the background of daily life. KULTURO can tap into these natural peaks, placing the right content at the right time.
- Behavior varies by group: Users don't all engage the same way. Some binge-watch and vanish for days, while others build slow, steady habits of cultural discovery. There are explorers, scrollers, and switchers—and each group needs something different. With these segments in hand, KULTURO can shape experiences that speak directly to every type of user.
- More screen time = less culture: When streaming surges, reading and deeper engagement dip. It's not about blaming the screen—it's about balance. KULTURO's opportunity is to slide into those high-screen moments and offer something richer—a cultural detour that feels just as easy but far more rewarding.

How This Shapes the App

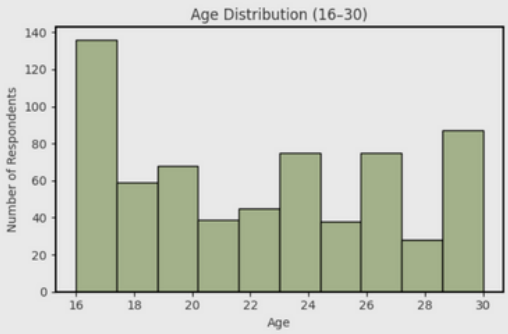
- Smart Nudges: KULTURO doesn't interrupt—it syncs. By recognizing users' natural rhythms, it offers subtle, well-timed prompts like a quote with your morning coffee, a "Did You Know?" during a midweek scroll, or a quick quiz right after a Netflix binge. These nudges feel intuitive, not intrusive—making cultural engagement effortless.
- Personalized Journeys: Every user's media diet is different, and KULTURO embraces that. With dynamic dashboards tailored to each user's behavior—be it music-heavy, book-leaning, or video-dominated—the app offers small, actionable shifts toward deeper, more balanced cultural habits.
- Gamified Encouragement: Culture doesn't have to be serious. Through mini-challenges, streak trackers, and playful rewards, KULTURO turns exploration into a game. Read three mornings in a row? That's a streak. Tried a new genre? That's a badge. These light touches build momentum and reframe cultural discovery as fun, not formal.

What Comes Next ?!

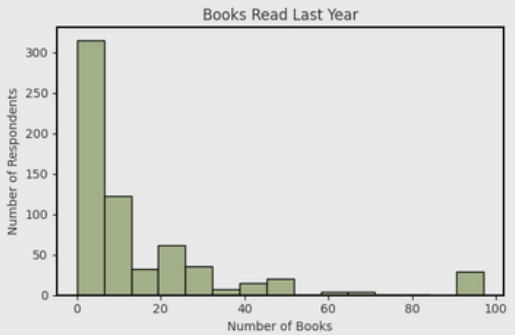
- Predictive Magic: With machine learning on our side, KULTURO can move from reactive to proactive. By forecasting when users might disengage, the app can step in with just the right nudge—before attention fades. Think of it as cultural intuition, powered by data.
- A/B Experiments, Real Results: Which quote sparks curiosity? Which challenge keeps users coming back? Through smart A/B testing, we'll fine-tune the content, formats, and timings that truly resonate—turning guesswork into growth.
- Endless Exploration: The journey doesn't stop here. As new users join, behaviors shift, and cultural trends evolve, so will our analysis. KULTURO will keep listening, learning, and adapting—becoming smarter, deeper, and more in sync with every update.

COMPLETE SET OF VISUALIZATIONS

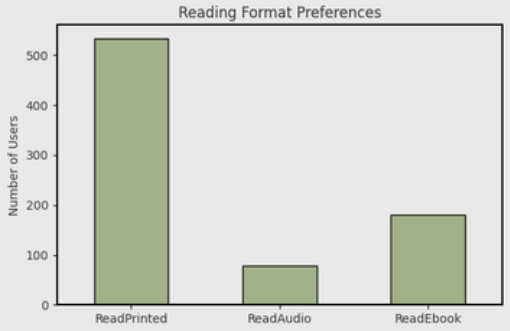
This section contains the full collection of data visualizations generated during the exploratory analysis phase. Each chart offers a deeper view into user behavior patterns, content preferences, and platform engagement—many of which informed key product decisions and strategic insights for KULTURO.



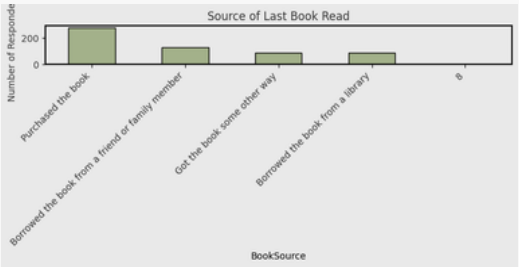
Most users are aged 16–18, showing a strong lean toward younger digital natives in the dataset.



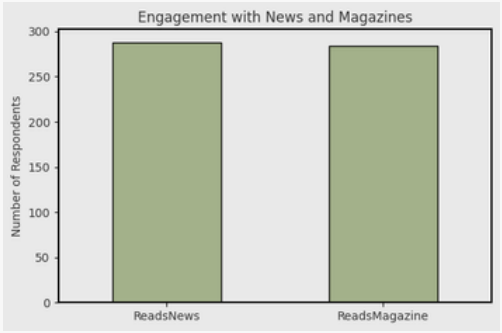
Most users read fewer than 10 books annually, highlighting a gap in deep cultural engagement.



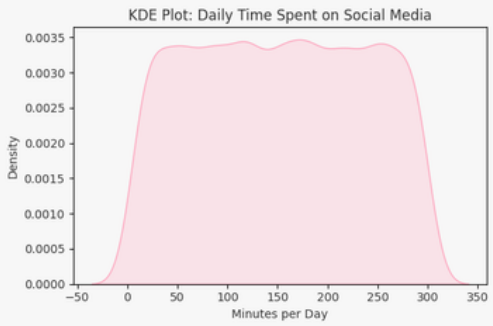
Printed books are the top choice, far ahead of audiobooks and ebooks.



Most users bought their last book, with borrowing and gifting as less common sources.

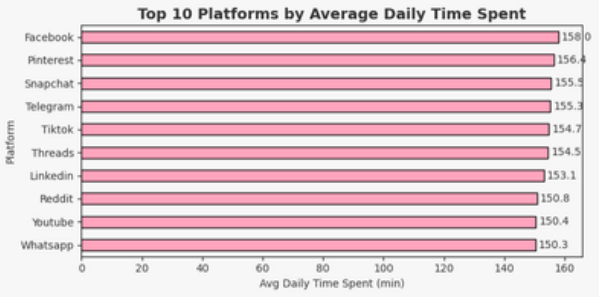


News and magazine reading are nearly equal, showing balanced interest in both formats.

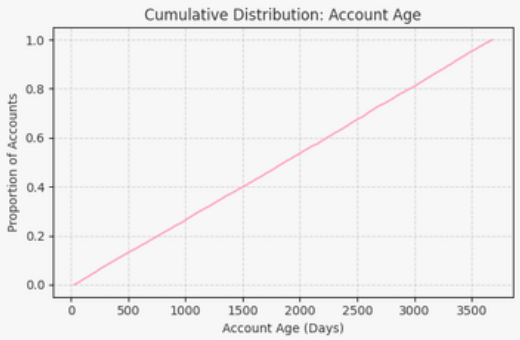


Most users spend between 50 to 250 minutes daily on social media, with consistent usage density throughout.

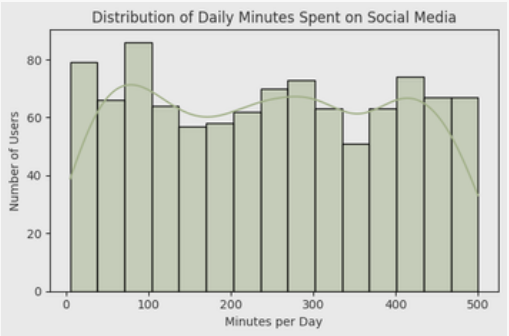
COMPLETE SET OF VISUALIZATIONS



Facebook leads the list of platforms where users spend the most time daily, closely followed by Pinterest and Snapchat—highlighting where attention is most concentrated.

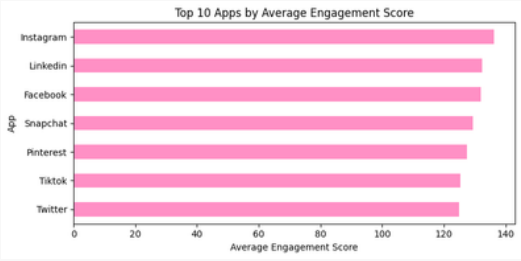


Most user accounts span a wide age range, with a fairly even distribution—indicating both new and long-term users are represented in the dataset.

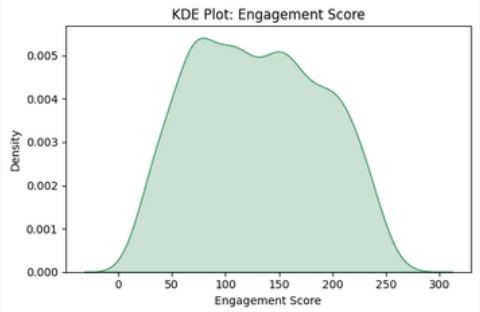


User social media time varies widely, with notable peaks across all ranges—suggesting no single average, but multiple active usage patterns.

The violin plot reveals a wide spread in daily time spent on social media, with multiple peaks and a solid median around the mid-range—highlighting diverse engagement levels across users.

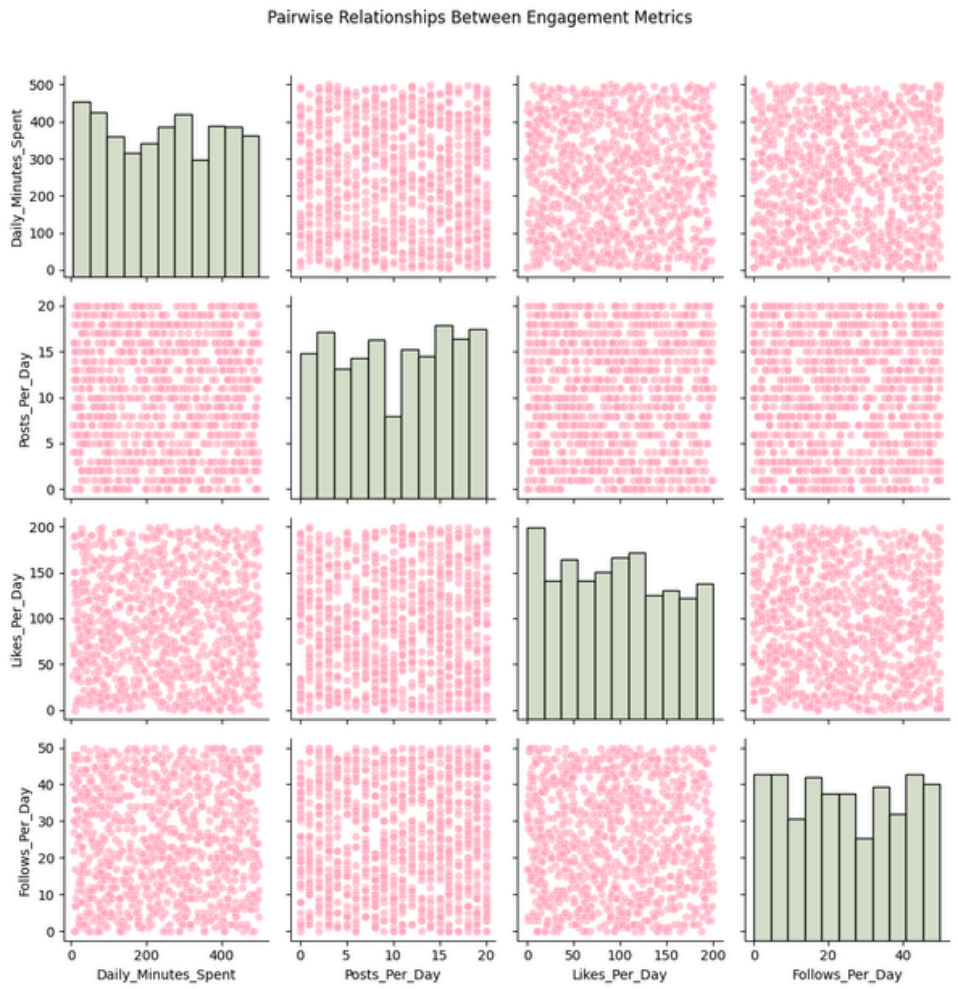


Instagram leads the chart with the highest average engagement score, followed closely by LinkedIn and Facebook—highlighting where users are most actively interacting.



The KDE plot shows a concentration of engagement scores around 100–150, with fewer users reaching the highest or lowest extremes—indicating moderate, consistent interaction levels.

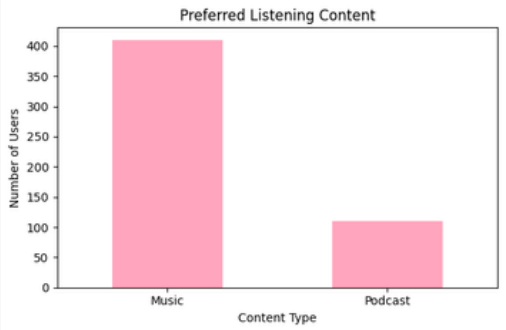
COMPLETE SET OF VISUALIZATIONS



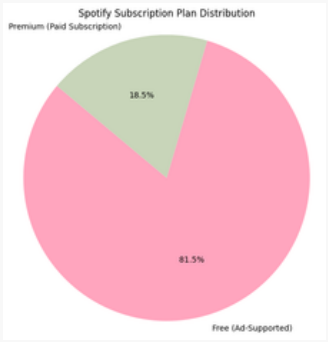
This pairplot acts like a backstage pass into user engagement, uncovering how actions like posting, liking, and following intertwine—or don't. Along the diagonals, we see how each behavior spreads across the user base, from light-touch scrollers to all-day engagers. But look closer: the scatterplots between variables show surprising independence. Users spending hours online aren't necessarily posting more or gaining follows—they may just be quietly consuming.

That's the spark for KULTURO's next move. These scattered patterns prove that engagement isn't linear—it's personal. This data invites us to think beyond averages and build smarter, more adaptive features that tune into each user's rhythm. Whether they're lurkers, likers, or cultural catalysts, we now know: one feed won't fit all.

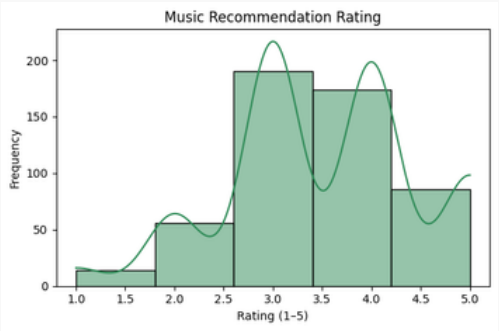
COMPLETE SET OF VISUALIZATIONS



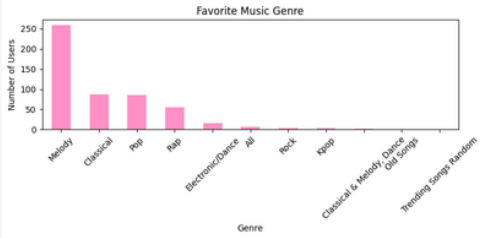
Most users lean toward music over podcasts, revealing a strong preference for light, ambient listening—ideal for layering in cultural nudges without interrupting flow.



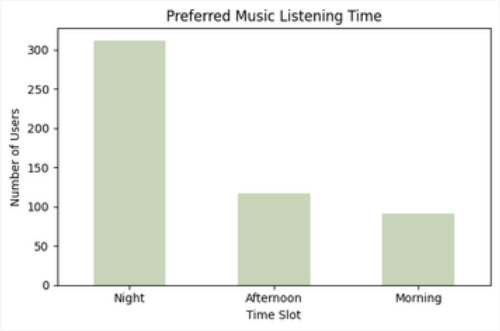
The vast majority of users (81.5%) are on Spotify's free plan, signaling high exposure to ads—perfect for inserting short, culturally enriching content during listening breaks.



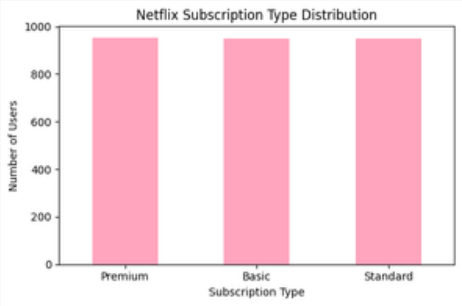
Most users rate Spotify's music recommendations between 3 and 4 stars, showing general satisfaction but leaving room for smarter, more personalized suggestions.



Melody dominates as the top genre, with Classical and Pop close behind—highlighting users' preference for relaxing, emotionally resonant tracks.

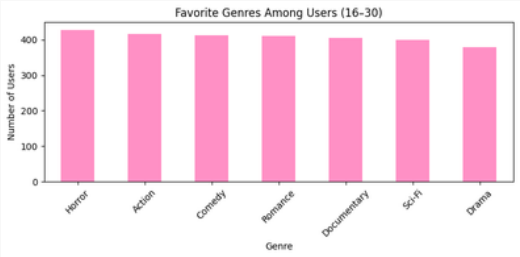


Nighttime is prime time for music, with most users tuning in after dark—suggesting the perfect window for mood-based recommendations.

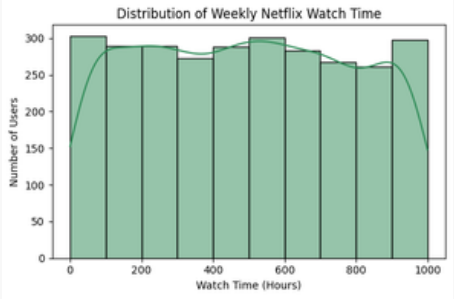


Netflix users are evenly split across Premium, Basic, and Standard plans—showing a balanced mix of content access levels across the platform.

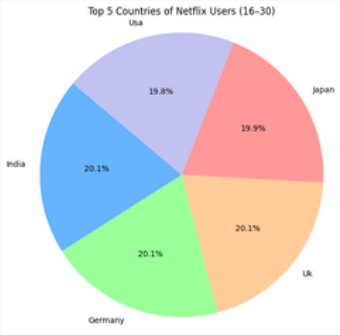
COMPLETE SET OF VISUALIZATIONS



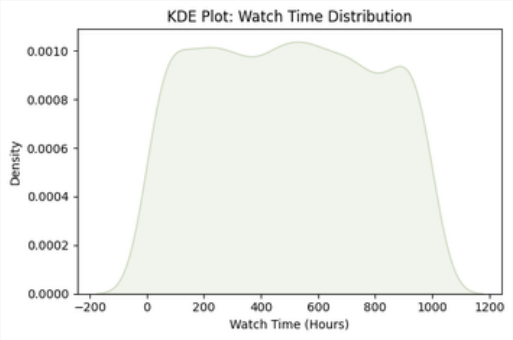
Users aged 16–30 show a strong interest in diverse genres, with Horror, Action, and Comedy leading the pack, reflecting a wide range of content preferences.



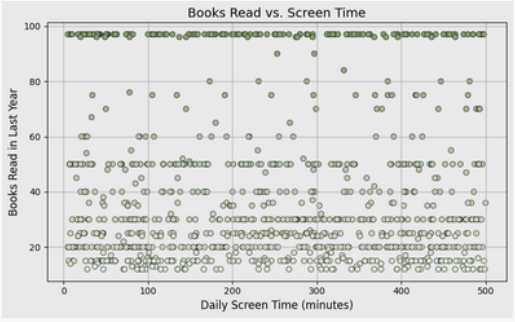
Weekly Netflix watch time spans widely across users, with many logging heavy hours—highlighting strong binge-watching behavior across the sample.



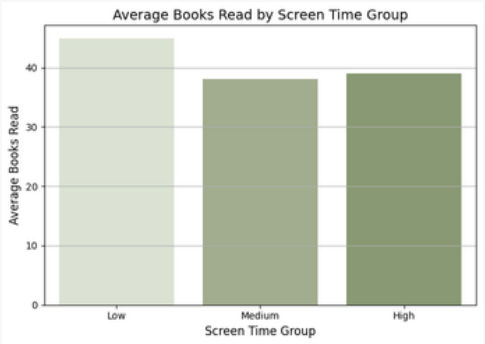
Netflix usage among 16–30-year-olds is nearly equally spread across India, Germany, the UK, Japan, and the USA—showing a global appetite for on-demand entertainment.



The KDE plot reveals that most users cluster around moderate-to-high Netflix watch times, with few extremes—highlighting a steady streaming pattern across the population.

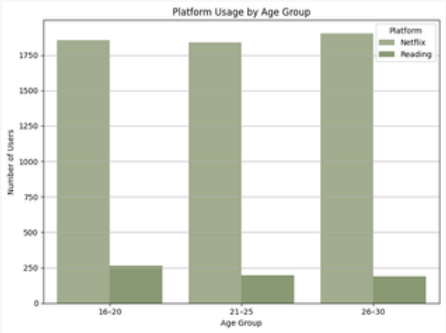


This scatterplot explores the relationship between daily screen time and the number of books read, highlighting patterns of cultural engagement across varying digital consumption levels.

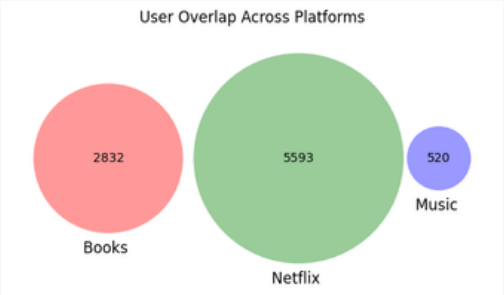


This bar chart shows that users with lower daily screen time tend to read more books on average, suggesting a potential trade-off between screen exposure and cultural reading habits.

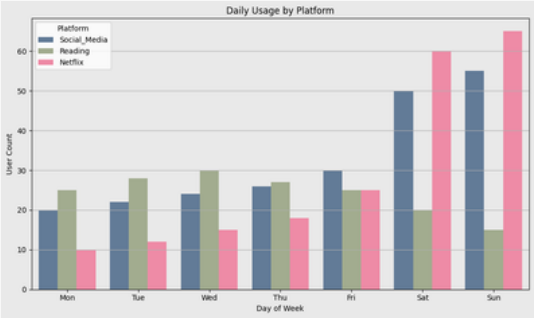
COMPLETE SET OF VISUALIZATIONS



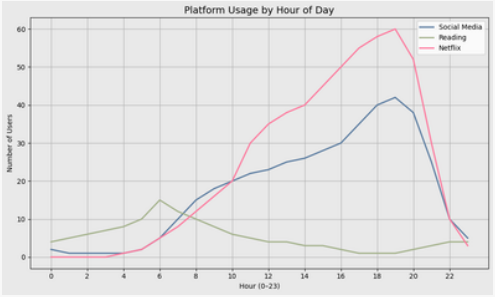
This grouped bar chart compares platform usage across age groups, revealing that while Netflix remains dominant for all users, reading activity declines steadily with age, especially beyond 21.



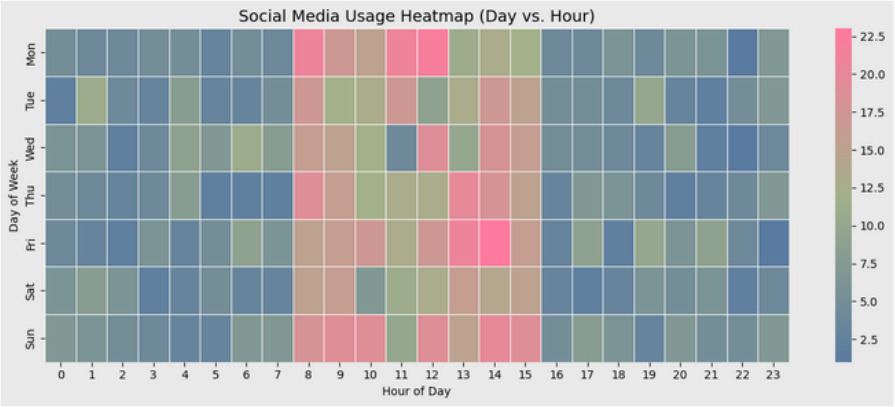
This bubble chart highlights user overlap across platforms, showing that Netflix has the highest user count by far, followed by books and a smaller group engaging with music, signaling where user attention clusters most.



Bar chart showing platform usage across the week—reading dominates early weekdays, while Netflix and social media surge dramatically on weekends, highlighting ideal timing for tailored content delivery.

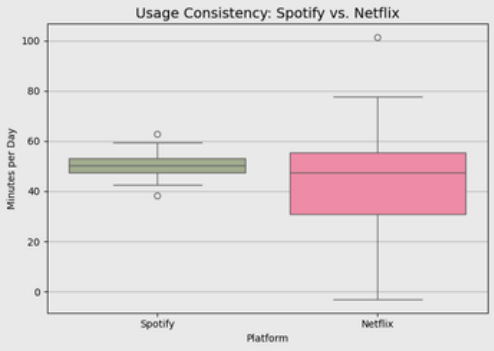


Line graph comparing hourly usage trends: reading peaks in the morning, Netflix dominates the evening, and social media steadily climbs toward night—revealing prime windows for targeted engagement

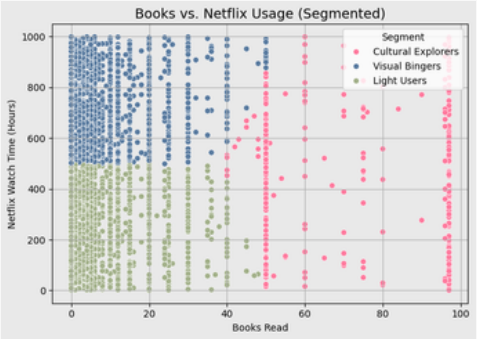


Heatmap highlighting peak social media usage during late mornings and early afternoons across the week—ideal windows for injecting light, cultural content when attention is already high.

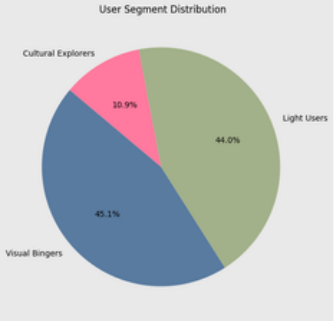
COMPLETE SET OF VISUALIZATIONS



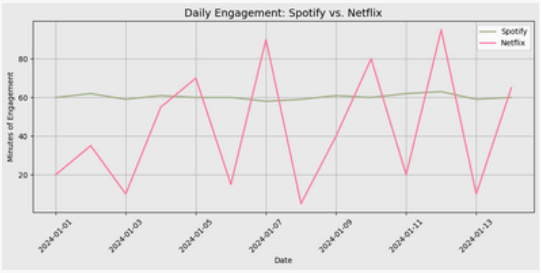
Spotify shows consistent daily usage across users, while Netflix usage varies significantly—highlighting the potential for KULTURO to time nudges more predictably around Spotify behavior.



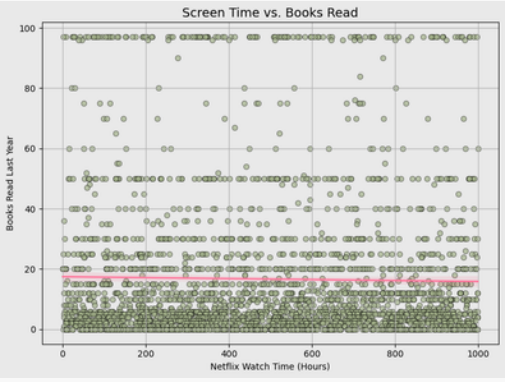
This segmented scatterplot reveals clear behavioral clusters: Cultural Explorers prioritize reading, Visual Bingers consume heavy Netflix with little reading, and Light Users show minimal activity across both—highlighting tailored engagement opportunities.



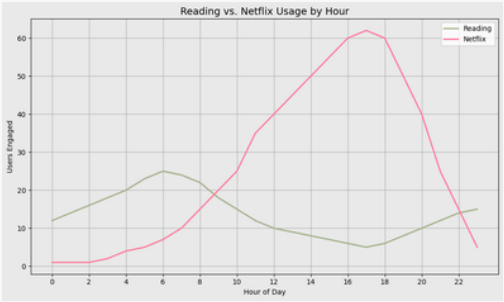
The majority of users fall into the Visual Bingers (45.1%) and Light Users (44%) segments, with only 10.9% identifying as Cultural Explorers—highlighting a major opportunity for KULTURO to inspire deeper cultural engagement.



This line chart compares daily engagement patterns—Spotify usage remains steady, while Netflix fluctuates sharply, highlighting its binge-driven nature.



This scatterplot reveals an inverse relationship—users who spend more time on Netflix tend to read fewer books, with heavy streamers clustering at the lower end of book counts.



Reading thrives in the early hours, while Netflix surges in the evening—revealing clear daily rhythms that KULTURO can align with for smarter engagement.