

Concept Note for Final Dashboard Project

Title: *Social Media Addiction Among Students: Impacts on Health & Academics*

Dashboard Link :

https://public.tableau.com/views/ShreyashGawas_ConceptNote_ConceptDashboard/Dashboard1?:language=en-US&publish=yes&:sid=&:redirect=auth&:&display_count=n&:origin=viz_share_link

1. Introduction to the Project

- Today's students spend hours each day on social media platforms, but little structured evidence exists on how that usage translates into real-world outcomes.
- This project uses a cross-sectional survey of 705 students (ages 16–25) to visualize patterns of social media addiction and its effects on mental health, sleep quality, academic performance, and interpersonal conflict.
- By turning raw survey data into interactive visual insights, the dashboard helps stakeholders understand the scope of digital addiction and develop targeted well-being strategies, directly supporting SDG 3: Good Health & Well-being.

2. Problem Statement

- Excessive social media use among students can undermine sleep, mental wellness, academic focus, and relationships.
- Yet, educators and policymakers lack clear, data-driven evidence to guide interventions. This analysis addresses that gap by quantifying addiction levels, correlating them with key health and academic indicators, and revealing demographic and geographic patterns to inform targeted solutions.

3. Objective of the Project

- Quantify social media addiction levels across platforms, genders, education levels, and countries
- Assess correlations between addiction score and
- Mental health
- Sleep duration

- Perceived academic impact
- Frequency of social conflicts
- Visualize these insights in an interactive dashboard for stakeholders
- Recommend data-driven interventions to improve student well-being

4. Hypothesis

Students with higher social media addiction scores will report poorer mental health, shorter sleep durations, more academic disruption, and increased social conflicts compared to peers with lower addiction scores.

5. Focus on Sustainable Development Goal (SDG)

SDG 3: Good Health & Well-being

- This project aligns with SDG 3 by highlighting how digital behaviors affect mental and physical health in young populations.
- The insights can guide programs to foster healthier online habits, improve sleep quality, and strengthen support systems for students experiencing digital addiction.

6. Dataset Overview

Aspect Details

- *Data Source* - Public survey dataset (Kaggle)
- *Size* - 705 rows × 12 columns
- *Period Covered* - Single cross-section (2024)
- *Key Features* - Avg Daily Usage Hours, Addicted Score, Mental Health Score, Sleep Hours Per Night, Affects Academic Performance, Conflicts Over Social Media, Most Used Platform, Gender, Academic Level, Country, Relationship Status
- *Type of Data* - Survey data (numerical, categorical)

7. Analysis & Visualization (Dashboard Summary)

Filters : Country, Gender, Academic Level, Most Used Platform

Chart Types:

- Stacked bar charts (academic impact)

- Pie chart (gender distribution)
- Heatmap (addiction by platform & education)
- Scatter plots (addiction vs mental health; conflicts vs addiction)
- Line chart (sleep trend by addiction bin)
- Geographic map (average addiction by country)
- Interactivity: Clicking on a platform, gender, or country filter updates all views.
- Comparisons Enabled: Between academic levels, genders, countries, and relationship statuses; trend lines reveal how health indicators vary with addiction levels

8. Key Insights & Findings

Platform Usage & Engagement

- Instagram (249 users) is the most popular platform, followed by TikTok and Facebook.
- Undergraduates show the highest addiction scores on Instagram and TikTok.

Academic Impact

- 64% of students (especially undergraduates) report that social media negatively affects their academic performance.

Health Implications

- There is a clear negative correlation between addiction score and mental health score.
- Higher addiction scores associate with <6 hours of sleep per night, compared to ~8.3 hrs for low-addiction students.

Conflicts & Relationships

- Students with higher addiction scores report more social conflicts.
- Those “In a relationship” report better mental health (avg 6.3) than “Single” (avg 6.2) or “Complicated” (avg 5.9).

Geographic Spread

- Students in USA, India, Brazil, and Southeast Asia exhibit higher average addiction scores than those in Europe and Africa.

9. Proposed Solutions & Recommendations

Digital Well-being Workshops

- Partner with counseling centers to run sessions on time management, screen-time monitoring, and healthy sleep habits.

Platform-Specific Awareness Campaigns

- Target Instagram and TikTok users with in-app alerts and campus posters highlighting risks of excessive use.

Peer-Support & Detox Challenges

- Organize “No-Scroll Week” challenges and peer groups to foster accountability and break addictive patterns.

10. Probable Outcomes & SDG Contribution

- Improved Mental Health & Sleep: Students gain tools to self-regulate, leading to better rest and reduced anxiety.
- Enhanced Academic Performance: Less digital distraction can translate into higher grades and engagement.
- Stronger Social Cohesion: Fewer conflicts improves relationships and campus climate.
- By promoting healthier digital habits, this project contributes to SDG 3 targets on mental health promotion and well-being.

11. Tools & Technologies Used

- Data Cleaning & Preparation: Microsoft Excel
- Visualization & Dashboard: Tableau Desktop Public Edition

12. References

UN SDG 3 Framework Document (United Nations, 2020)

Dataset Source: Kaggle (Students Social Media Addiction Survey)

