**🧠 Problem Statement: College Enrollment, Dropout & Literacy Trends**

**🎯 Overview:**

India is at a critical juncture in balancing traditional education systems with the explosive rise of digital and social media platforms. Despite increasing enrollments, disparities in literacy, dropout rates, and digital access continue to challenge equitable education. Simultaneously, the prevalence of social media usage among youth may be influencing educational outcomes — both positively and negatively.

This project explores the **intersection between educational metrics (enrollments, literacy, dropout)** and **social media behavior (screen time, session count, notification load)** across different regions, genders, and age groups in India. The goal is to uncover actionable patterns and build data-driven strategies to improve academic engagement and digital literacy.

**🔍 Insight Questions (for EDA, Correlation & Modeling)**

**1. Enrollment Patterns**

* Which states have the highest and lowest overall college enrollment numbers over the years?
* How does enrollment vary across UG, PG, and vocational courses at the state level?
* What is the gender distribution of enrollments across states and regions?
* Are there differences in enrollment trends between urban and rural areas?
* Does the Gender Parity Index correlate with regional enrollment rates?

**2. Dropout Trends**

* What are the top reasons cited for student dropouts by state and educational level (UG/PG/Vocational)?
* How do dropout percentages correlate with:
  + Financial Support Programs?
  + Gender?
  + Course type (UG vs. PG vs. Vocational)?
* Are dropout rates higher in states with poor infrastructure or lower quality indices?

**3. Literacy Disparities**

* Which states have the largest literacy gaps between male and female populations?
* How does urban vs. rural literacy rate compare across different states?
* Is there a correlation between student-teacher ratio and literacy improvement?
* How does the Educational Quality Index relate to literacy levels?

**4. Social Media Usage Patterns**

* What is the average screen time and session count by gender and age group?
* Which social media apps show the highest engagement (notifications, usage frequency)?
* How does screen time vary with usage patterns (frequent, occasional, rare) and break intervals?
* Are peak usage times (morning/afternoon/night) associated with longer screen time?

**5. Education vs. Digital Behavior (Cross-analysis)**

* Do states with high dropout rates also show higher average screen time or session counts?
* How does **Digital Access (Yes/No/Maybe)** correlate with:
  + Enrollment numbers?
  + Literacy levels?
  + Dropout rates?
* Is there a link between high screen time and lower educational engagement?
* Do frequent users of social media tend to come from states with higher dropout or lower literacy?
* Are there any predictive relationships between screen behavior (screen time, notifications, peak usage) and dropout or enrollment rates?