



## A STUDY OF THE IMPACT OF SOCIAL MEDIA ON COLLEGE STUDENTS IN HIGHER EDUCATION: AN EMPIRICAL ANALYSIS OF ARTS AND SCIENCE STREAMS

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### RESEARCH ARTICLE



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#### Abstract

Social media is now a big part of college students' everyday lives. It has changed how they talk to others, study, and spend time with friends. This study asked 100 college students about how social media affects them. The findings show both good and bad effects. Using social media too much causes problems like less exercise, trouble sleeping, stress, and other health issues. However, when students use it carefully and for specific purposes, it helps them communicate better and find learning materials more easily. Students who spend too much time on social media without control did worse in their classes. The study suggests that colleges should teach students how to use technology wisely, manage their time well, and take care of their mental health. This will help students get the most benefits from social media while avoiding the negative effects.

**Keywords:** *Academic Engagement, Academic Performance, Arts and Science Students, Higher Education, Social Media Usage*

#### Introduction

Social media has greatly changed college education. In the last ten years, digital tools have changed the way teaching, learning, and student interaction take place. Social media platforms now help students share information quickly, learn in interactive ways, and connect easily with others. Because of this, colleges consider social media an important part of modern education.

Social media includes platforms like Facebook, Twitter, WhatsApp, YouTube, Instagram, and Telegram. These platforms are easy to use and easily available. They help students communicate, share study materials, work together, and connect with people around the world. Features such as messaging, group discussions, videos, and live classes allow students to learn anytime and anywhere.

Many studies show that social media has positive effects on college education. It improves communication between students and teachers, supports group learning, and provides easy access to learning resources. It also helps students build networks and share ideas. However, excessive or unplanned use of social media can cause problems like distraction, poor concentration, waste of time, and mental health issues such as stress and loneliness. This shows that social media has both positive and negative effects.

Although social media is widely used by college students, there is limited research on its overall impact. Also, few studies compare its effects on students from different streams like arts and science. Therefore, this study focuses on examining both the positive and negative effects of social media on college students.

#### Objectives of the Study

This study has the following goals:

1. To find out how much and in what ways college students use social media.
2. To study the positive effects of social media on students' learning, communication, and access to study materials.
3. To study the negative effects of social media on students' ability to focus, their grades, and their social behavior.
4. To compare how social media affects arts students differently from science students.
5. To understand what students think about how social media affects their studies and social lives.

#### Hypothesis

Based on the goals of the study, the following assumptions have been made:

1. Social media usage has a clear effect on how college students engage with their studies.

2. Social media has both helpful and harmful effects on college students' academic performance.
3. Social media affects arts students and science students differently.
4. Using social media too much negatively affects students' ability to concentrate and study well.
5. Social media plays an important role in helping college students communicate better and find academic information more easily.

### Scope of the Study

This study examines how social media affects college students in higher education. It looks at both the positive and negative effects on students' learning, communication, and social behavior. The study tries to understand how social media influences students' study habits, learning experiences, and relationships in college.

The study includes only undergraduate and postgraduate students from arts and science streams. It compares these two groups to see how social media use and its effects differ between them. The focus is on common platforms such as Facebook, WhatsApp, Instagram, YouTube, and Telegram, which students use for both academic and personal purposes.

The study is based on survey responses given by students, which may have some limitations. Even so, the study aims to provide useful information about the role of social media in college education and its academic and social effects on students.

### Review of Literature

Boyd and Ellison (2007) defined social networking sites as online platforms that allow users to create public profiles and connect with others, highlighting their growing importance in communication and social interaction. Gupta and Bashir (2018) examined the impact of social media on college students' academic performance and found that platforms such as WhatsApp, Facebook and YouTube were widely used for academic communication, though excessive use led to distraction, poor time management and academic stress. Similarly, Raut and Patil (2016) reported that social media supported group learning and information sharing among Indian students but cautioned that overdependence could negatively affect academic discipline. Kumar and Nanda (2019) further observed that moderate and purposeful use of social media enhanced student engagement and learning outcomes in college education. More recently, VS and Anbu (2024) studied social media usage and addiction among students and found that excessive use had a negative impact on academic performance.

### Methodology

This study uses a descriptive and analytical research design to examine how social media affects college students. The study follows a quantitative research approach using surveys. The study includes undergraduate and postgraduate students studying arts and science subjects in selected colleges of Gonda district, Uttar Pradesh. The study used a Stratified Random Sampling technique to ensure equal representation of both academic streams.

The population was divided into two groups – arts and science – and students were randomly selected from each group. The sample distribution includes 50 arts students and 50 science students. Data were collected using a structured questionnaire. The level of significance was set at 0.05 for testing the hypotheses.

### Variables

Variables are things that can be measured and studied to understand how they are related and affect each other.

1. Independent Variables
  - Social Media Usage
  - Academic Stream (arts and science)
2. Dependent Variables
  - Academic Engagement
  - Academic Performance
  - Social and Psychological Factors
3. Control Variables
  - Level of Study (undergraduate or postgraduate)
  - Gender
  - Type of College

To measure these variables, information was collected using a questionnaire with a five-point scale (ranging from Strongly Agree to Strongly Disagree).

### Data Analysis and Interpretation

**Table 1: Demographic Profile of the Respondents (N = 100)**

Demographic Variable	Category	Frequency	Percentage
Gender	Male	46	46%
	Female	54	54%
Age	18–20 years	38	38%

	21–23 years	47	47%
	Above 23 years	15	15%
<b>Academic Stream</b>	Arts	50	50%
	Science	50	50%
<b>Level of Study</b>	Undergraduate	68	68%
	Postgraduate	32	32%

Table 1 presents the demographic profile of the respondents. The sample consisted of 100 college students, including 46% males and 54% females. Most respondents (47%) were in the age group of 21–23 years, followed by 38% in the 18–20 years category. The sample was equally divided between arts and science students, with 50 respondents from each stream. A majority of the students (68%) were pursuing undergraduate studies, while 32% were enrolled at the postgraduate level.

**Table 2: Frequency of Social Media Usage**

Usage Frequency	Frequency	Percentage
Daily	72	72%
3–4 times a week	18	18%
1–2 times a week	10	10%
Total	100	100%

Table 2 shows how often college students use social media. The data indicates that most students (72%) use social media every day, showing that it is a regular part of their daily routine. This suggests that social media is widely used for communication, sharing information and entertainment. In addition, 18% of students use social media three to four times a week, while 10% use it once or twice a week. This means that even students who do not use social media daily still use it regularly. Overall, the findings show that social media is an important part of both the academic and social lives of college students.

**Table 3: Social Media Platforms Used by Students**

Platform	Frequency	Percentage
WhatsApp	90	90%
YouTube	82	82%
Instagram	65	65%
Facebook	48	48%
Telegram	40	40%

(Multiple responses allowed)

Table 3 shows the social media platforms used by the students. The results show that WhatsApp is the most used platform, with 90% of students using it for chatting, academic discussions and sharing information. YouTube is used by 82% of students, mainly to watch educational videos and tutorials. Instagram is used by 65% of students, mostly for social interaction and entertainment. Facebook is used by 48% of students. Telegram, used by 40% of students, is mainly used for sharing study materials, notes and exam-related information. Since students can use more than one platform, the findings show that they use different social media platforms for study, communication, and entertainment.

**Table 4: Purpose of Social Media Usage**

Purpose	Frequency	Percentage
Academic purposes	62	62%
Communication / Networking	78	78%
Entertainment	70	70%

(Multiple responses allowed)

Table 4 shows why college students use social media. Most students (78%) use it for communication and networking, such as talking to friends and classmates. 70% of students use social media for entertainment, like watching videos and relaxing. 62% of students use it for academic purposes, such as getting study materials and joining study discussions. This shows that students use social media not only for fun but also for learning. Since students could choose more than one reason, the results show that they use social media for study, communication and entertainment at the same time.

**Table 5: Mean and Standard Deviation of Positive Academic Effects**

(Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

Statement	Mean	SD
Social media improves academic communication	3.98	0.76
Helps access learning resources	4.12	0.69
Encourages collaborative learning	3.85	0.81
Increases academic motivation	3.64	0.88

Table 5 shows students' views on the positive academic effects of social media. Most students agree that social media helps them access learning materials easily (Mean = 4.12). It also improves academic communication among students (Mean = 3.98) and

supports group learning and collaboration (Mean = 3.85). Social media has a moderate effect on increasing academic motivation (Mean = 3.64). Overall, the results show that students find social media useful for learning, especially for getting study resources and communicating with others.

**Table 6: Mean and Standard Deviation of Negative Effects**

Statement	Mean	SD
Social media reduces concentration	3.92	0.83
Causes academic distraction	4.05	0.79
Leads to procrastination	3.88	0.85
Causes stress or anxiety	3.41	0.91

Table 6 presents students' views on the negative effects of social media. The highest mean score is for academic distraction (Mean = 4.05), showing that most students feel social media distracts them from their studies. Reduced concentration (Mean = 3.92) and procrastination (Mean = 3.88) also received high scores, indicating problems with focus and time management. The mean score for stress or anxiety is comparatively lower (Mean = 3.41), suggesting it is a less serious concern than academic issues. Overall, the table shows that excessive social media use mainly affects students' concentration, study focus and timely completion of academic work.

**Table 7: t-Test Results: Arts vs Science Students**

Dependent Variable	Mean (Arts)	Mean (Science)	t-value	p-value	Result
Academic Engagement	3.62	3.94	2.41	0.018	Significant
Academic Performance	3.55	3.89	2.27	0.025	Significant
Social & Psychological Factors	3.71	3.68	0.42	0.676	Not Significant

Table 7 shows the t-test results comparing arts and science students on the effects of social media use. A significant difference is found in academic engagement, with science students scoring higher than arts students ( $p < 0.05$ ). Academic performance-related factors also show a significant difference in favour of science students. However, no significant difference is observed between the two groups in social and psychological factors. The mean scores of arts and science students in this area are almost equal. Overall, the findings indicate that science students benefit more academically from social media use, while social and psychological effects are similar for both groups.

## Findings and Conclusion

This study presents the main findings and conclusion based on data collected from 100 college students (50 arts and 50 science) from selected colleges in Gonda district, Uttar Pradesh. The study examined how social media affects students' academic engagement, academic performance and social and psychological aspects.

### Key Findings

- Demographic Profile** – The sample included an equal number of arts and science students. Most students were between 18 and 23 years of age. Both male and female students used social media regularly, with no major difference in usage between genders.
- Social Media Usage Patterns** – Most students used social media every day. WhatsApp and YouTube were the most commonly used platforms, followed by Instagram, Facebook, and Telegram. Students used social media for studying, communication and entertainment.
- Positive Effects of Social Media** – Social media helped students stay academically engaged by improving communication with classmates and providing easy access to study materials. It supported group learning and information sharing, especially through WhatsApp groups and YouTube videos. Students also reported some improvement in motivation and academic support.
- Negative Effects of Social Media** – Too much use of social media caused distraction, poor concentration and delay in completing academic work, especially when used mainly for entertainment. Some students also reported feelings of stress and social isolation.
- Differences between Arts and Science Students** – Science students used social media more for academic purposes, while arts students used it more for social interaction and entertainment. The results showed that science students had higher academic engagement and performance compared to arts students.

### Conclusion

Based on the key findings, the following conclusions can be drawn:

- Social media has become an integral part of college students' lives in Gonda district, with both positive and negative implications for academic and social outcomes. (Daimary, 2020; Jha, 2024; Pandey, 2025; Vanithamani, 2021)
- Purposeful and moderate usage of social media enhances academic engagement, promotes collaboration, and improves access to learning resources. (Jin & Ibrahim, 2024; Akhtar et. el., 2025; Shrivastava, 2025)
- Excessive and non-academic usage results in distraction, reduced concentration, procrastination, and potential psychological stress among students. (Daimary, 2020; Pandey, 2025)

4. There is a significant difference between arts and science students in the impact of social media, with science students demonstrating more academic-oriented use.

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