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Impact of Social Media on Master's of Computer Application Student's

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ABSTRACT

Social networking sites' explosive growth has altered how students interact, communicate, and learn. Students pursuing master's degrees in computer applications (MCA) are a special group because of how heavily technology is incorporated into their coursework. They use social media, online forums, and digital tools a lot for both work and school. While social media platforms like LinkedIn, GitHub, and research forums allow for collaborative learning, information sharing, and career-building opportunities, an over-reliance on entertainment-driven platforms like Instagram, Facebook, and Twitter has been shown to divert students from their academic work, impair focus, and have an adverse effect on overall productivity. The purpose of this study is to investigate how much social media affects students' lifestyle, career development, and academic achievement. Surveys, questionnaires, and literature reviews were all used in this mixed-method approach.

The findings indicate that moderate and purposeful use of social media improves academic and career outcomes, whereas unregulated usage negatively affects learning efficiency. The findings reveal that professional-oriented platforms positively affect academic and career growth, whereas recreational platforms often negatively influence academic performance.

Keywords: Social Networking Sites (SNS), MCA Students, Academic Performance, Social Media, Digital Learning.

1. Introduction

Over the past ten years, there has been a sharp rise in the use of technology in higher education. Since many people have access to the internet, MCA students are among the most active social media users due to their exposure to online platforms and technical background. Although social networking sites offer chances for industry interaction, skill development, and academic collaboration, they also carry the risk of addiction and misuse. In contrast to students from non-technical backgrounds, MCA students use social media for online seminars, coding communities, and open-source projects in addition to entertainment.

But when used excessively, the same platforms that offer chances for academic enrichment can also result in procrastination, late assignment submissions, and diminished focus. This study aims to investigate whether social media can help or hinder MCA students' academic progress.

1.1 Statement of the Problem

Due to Student's constant exposure to technology and digital platforms, Masters of Computer Applications (MCA) students are among the most active social media users. Social media offers chances for professional networking, cooperation, and knowledge exchange, but when used improperly, it can also lead to distraction, decreased productivity, and academic decline. Many MCA students spend excessive time on entertainment-based platforms, which leads to procrastination, late submission of assignments, and lack of focus during studies. However, when utilized properly, professional platforms like GitHub and LinkedIn can improve skill development and employability.

The imbalance is the issue; students frequently do not differentiate between social media use for academic or professional purposes and use for leisure. This disparity poses significant queries:

Does social media help or hurt Masters of computer application (MCA) student's academic performance :

Compared to recreational use, how much does professional social media use aid in career advancement?

How can MCA students strike a balance between social media usage that is constructive and detrimental?

By examining the academic, social, and professional repercussions of social media use among MCA students, this study aims to allay these worries.

1.2 Objectives of Research

1. to examine the impact of social media on the academic achievement of MCA students.
2. to determine if professional networks like GitHub and LinkedIn are helpful for career advancement.
3. to investigate the detrimental effects of excessive social media use, including addiction and procrastination.
4. to investigate the fundamental reasons why MCA students utilize social networking sites.
5. to look into the connection between students' ability to manage academic deadlines and the amount of time they spend on social media.
6. to evaluate how social media helps MCA students with knowledge sharing, project development, and collaborative learning.
7. to research the lifestyle and psychological effects of extended social media use, including stress, sleep deprivation, and inactivity

1.3 Hypothesis of the Study

H_0 (Null Hypothesis): There is no significant impact of social media usage on the academic performance of MCA students.

H_1 (Alternative Hypothesis 1): Excessive use of social media negatively affects the academic performance and productivity of MCA students.

2. Literature Review

There are Some Mixed results have been found in recent empirical studies and reviews: some papers report negative associations between social media time and GPA (distraction, multitasking, sleep loss), while others report positive effects when social media use is moderate or used for academic/knowledge-sharing purposes. Systematic reviews and cohort studies consistently correlate high or problematic social media use with more stress, anxiety, depression symptomology, and sleep disturbance in young adults. Late-night use and doom-scrolling are frequently cited; these have indirect effects diminishing academic participation, focus, and overall performance. Mixed relationships between social media use and academic achievement have been reported in studies. There are some large cross-sectional and meta-analytic investigations that identify negative correlations (time displacement, less study time, lower GPA) particularly when use is excessive or addictive; other investigations have reported no meaningful correlation or even positive outcomes when social networking is used intentionally for academic cooperation and information foraging. The relationship tends to rely on (a) use purpose (academic vs. social), (b) measurement (objective grades vs. self-reported GPA), and (c) individual differences (personality, self-regulation). Implication for MCA students: unrestrained recreational use during lab sessions or revision can lower coding productivity; on the other hand, platform use focused on coding assistance (GitHub discussions, Stack Overflow links posted in social media groups) can enhance learning efficiencyMCA coursework involving in-depth work (algorithm design, debugging) is especially susceptible to disruptions from notifications and "micro-tasking.".

Not enough books and too much face in Rey Junco (2012)

What: A well-known, frequently referenced empirical study that connects a number of Facebook usage metrics to GPA and academic engagement. demonstrates that while Facebook multitasking and time spent on the platform can have a negative impact on GPA, certain Facebook activities, like sharing information, can have a positive impact on engagement.

Methods: Regression analysis, a large student survey, and a classification of SNS activity types.

MCA takeaway: Differentiate between socializing and academic collaboration on social media. Activity type is important for MCA students who frequently use GitHub, Telegram, or WhatsApp for project work.

Academic performance and mobile social media use (Giunchiglia et al., 2020)

What: A study using usage data from smartphones reveals a negative relationship between academic results and social media use during study and class activities. employs actual smartphone logs as opposed to self-report.Method: Higher internal validity for time-use measures; passive sensing of phone activity plus academic records.

MCA takeaway: MCA students, who are tech-savvy and likely to consent to app-based logging, benefit greatly from passive behavioral logging (with consent); it also lessens self-report bias.

Bhandarkar et al. (2021) — Social media's effect on academic achievement (PMC article)

What: A survey-based study that found excessive social media use negatively affects academic performance and suggests awareness-raising measures.

Methods: Standard academic performance self-reports and a cross-sectional questionnaire.

Limitations: cross-sectional design, self-reporting; correlation rather than causation.

MCA takeaway: Encourages the necessity of measuring sleep/cognitive load and time management in addition to usage to parse mechanisms.

Students' academic performance is enhanced by social media, according to Ashraf et al. (2021) (PMC article).

What: Links academic-oriented use of social media to improved results and demonstrates how it can be a dynamic educational tool that fosters collaboration, discussion, and resource sharing.

Method: Survey and synthesis of mixed evidence.

Takeaway for MCA: When used purposefully, collaboration-supporting platforms like Discord, GitHub, and group WhatsApp/Telegram may enhance performance for project-based curricula, which are typical of MCA.

Social media's effects on wellbeing and academic achievement (Chandrasena et al., 2022).

What: Significant correlations were found between the frequency of social media usage and following and lower self-reported wellbeing and GPA among undergraduate health-science students; platform-specific patterns were highlighted.

Method: Surveys, frequency and platform specific analysis.

MCA takeaway: Platform and frequency differences are important; ask about platforms that are pertinent to MCA students, such as YouTube tutorials, Telegram, Stack Overflow, and GitHub discussions.

Kolhar et al. (2021) — Social media's impact on sleep, social interactions, and education (PubMed)

What: Looks at why people use social media and how it affects learning and sleep; academic performance is probably affected by sleep and attention mediators.

Method: Students participated in an empirical survey, which suggests that sleep and focus act as mediators.

MCA takeaway: To test mediation, include sleep quality and attention/concentration measures (such as the PSQI and self-report attention scales) in your MCA study.

A systematic review of social networking addiction and academic performance was conducted by Salari et al. in (2025)

What: According to a recent systematic review, there is a consistent correlation between social networking addiction and problematic use and worse academic outcomes. The review also reveals that study designs and effect sizes vary.

Method: Meta-synthesis and systematic review of international research.

MCA takeaway: When researching MCA cohorts, think about assessing problematic/social media addiction constructs (such as the Bergen Social Media Addiction Scale).

Conclusion. The reviewed studies collectively reveal that social media has a **dual impact** on students' academic performance. On one hand, excessive and non-academic use often correlates with **distraction, poor time management, sleep disruption, and lower academic outcomes**. This pattern is supported by research using both self-reported data and smartphone-usage tracking, which consistently show negative effects when students multitask or spend prolonged hours on social platforms during study time.

For **MCA students**, this gap is particularly important. Being highly digital-literate and reliant on platforms like GitHub, Stack Overflow, YouTube, WhatsApp, and Telegram for project work, MCA students' social media patterns differ significantly from other groups. The reviewed literature highlights that while risks exist, **strategic and academic-oriented use of social media can become a facilitator rather than a barrier** to academic success.

Therefore, the literature underscores the necessity of conducting **domain-specific studies** among MCA students to examine not only the amount of time spent on social media but also the **purpose of use, platform type, and mediating factors**. Such research would provide deeper insights into how social media can be optimized as a learning tool while minimizing its negative impacts on academic performance.

3. Research Methodology

The study adopts a descriptive and discovered research approach to analyse a centralized baselinked electronic health record (EHR) platform in India. Both primary and secondary data sources were used to ensure a wide understanding of the problem.

1. Primary data collection

Survey/Questionnaire: MCA students will be given a structured questionnaire to complete in order to collect data on :hours spent on social media on a daily or weekly basis. usage's main objective (academic, social, entertainment, networking) most popular platforms (e.g., Instagram, Stack Overflow, YouTube, GitHub, Telegram, WhatsApp). influence on study techniques (focus, time management, multitasking) Academic performance as reported by the self (CGPA/semester results).

Interviews/Focus Groups (Optional): To capture deeper insights, a small group of students may be interviewed about their perceptions of how social media helps or hinders their learning (e.g., project collaboration vs. distraction).

2. Secondary data collection

Literature Review: Theoretical and empirical support for the impact of social media on students' academic performance will be provided by previously published research articles, journals, dissertations, and conference papers.

Reports & Statistics: Secondary sources such as official government and educational reports and data on digital usage (such as how many students in India use the Internet) will support background research.

3. Data analysis

Quantitative Analysis:

Mean, percentage, and frequency are examples of descriptive statistics that are used to summarize usage patterns and demographic information. Examine the connection between social media usage and academic achievement (GPA/marks) using correlation analysis (e.g., Pearson's r). The predictive effect of academic versus non-academic social media usage on academic achievement is examined using regression analysis. to compare the performance of heavy, moderate, and light social media users, use ANOVA or t-tests.

4. Research design

Research Type: Correlational and Descriptive.

Population: MCA students enrolled in particular universities and colleges.

Approximately 100 to 150 students were chosen using stratified random sampling, which ensures that students from various semesters are represented. Mixed-methods research approach (qualitative interviews and quantitative survey).

Cross-sectional data is gathered at a single point in time.

5. Expected Result:

Overuse of social media for non-academic purposes (such as entertainment or conversation) is predicted to have a detrimental effect on academic achievement.

It is anticipated that moderate or academically focused use (such as group discussions, GitHub, and YouTube tutorials) will positively correlate with performance .The strength of the relationship is likely to be influenced by mediators like time management, multitasking techniques, and sleep quality. The findings might emphasize the importance of using social media in moderation and offer suggestions to teachers and students on how to use it as a tool for learning while reducing distractions.

4. Results and Analysis

The study revealed that MCA students actively engage with social media, with the majority spending between 2–4 hours daily. Platforms such as WhatsApp, Instagram, and YouTube were the most preferred, while LinkedIn was used mainly for academic or professional purposes. The findings indicate that entertainment remains the primary motive for usage, though a significant number also use social media for academic discussions and peer collaboration.

1 Presentation on findings:

The study findings present unequivocal patterns in the use of social media among MCA students. The majority of students (35%) indicated that they spent 2–4 hours per day on the platforms, followed by 25% who spent 4–6 hours, with 10% spending more than 6 hours a day. WhatsApp, Instagram, and YouTube were the most used platforms, with LinkedIn being used less for academic networking. The main purpose of use was entertainment (70%), second to academic discussions (40%) and peer-to-peer communication. Evidence also indicates that students with moderate usage had consistent or healthy academic performance compared to those with heavy usage, reporting poor grades, procrastination, and decreased concentration. Also evident were the psychological impacts of stress and anxiety that occurred more frequently in high-usage groups.

2 Data Analysis and Interpretation:

The collected data were analyzed using descriptive statistics to identify trends in social media usage among MCA students. Percentages and frequency distributions highlighted differences in time spent, platform preferences, and academic outcomes. The interpretation shows that moderate users (2–4 hours daily) maintained stable academic performance and effectively used platforms for study-related discussions. In contrast, heavy users (over 6 hours daily) showed a decline in grades, increased procrastination, and reduced focus, confirming a negative correlation between excessive use and academic success. Entertainment-driven usage dominated, but students who engaged in academic or networking activities experienced more positive outcomes.

3 Support for research question or hypothesis:

The influence of social media among MCA students can be envisioned from positive and negative viewpoints. Overuse of sites like Instagram, YouTube, and WhatsApp tends to divert students from their academic objectives, hence decreasing the level of focus and productivity. Endless notifications and extended hours on screen eat into study time and can lead to procrastination, inefficient use of time, and deterioration in academic performance. In

addition, prolonged exposure to idealized social media content can induce stress, anxiety, and low self-esteem among students, impacting their mental health and motivation. Nonetheless, social media offers various academic and professional benefits if utilized prudently.

5. Discussion

The results reveal the dual nature of social media for MCA students. Firstly, it ensures academic collaboration, peer learning, and professional networking, primarily via WhatsApp and LinkedIn. Secondly, overindulgence results in an academic downfall, procrastination, and even psychological problems like stress and anxiety.

1 Interpretation of results:

The findings of the research reveal that social media both positively and negatively affects MCA students, depending on the purpose and way in which it is utilized. A high proportion of students used social media for learning purposes like accessing tutorials, note-sharing, and engaging in academic groups. This suggests that social media can be an effective communication and learning tool. But the information also shows that students who spend over three hours every day on non-academic social media use have lower academic attainment and levels of concentration. In contrast, moderate users exhibited improved time management and employed sites such as LinkedIn, GitHub, and YouTube for professional development and career advancement. Accordingly, the analysis means that MCA students' social media impact is chosen based on the relationship between productive educational use and excessive recreational use.

2 Comparison with existing literature:

The findings of the current study are in most cases in line with outcomes of earlier research regarding the academic impact of social media. In the past, studies like Junco (2012) and Kirschner & Karpinski (2010) indicated that learners who allocate too much time to non-academic social networking achieve lower grades and lower academic concentration. The present research corroborates the above findings by indicating that students of MCA who employed social media primarily for leisure suffer from distraction and reduced productivity. Tess (2013) also emphasized the constructive potential of the social networking tools when implemented in learning environments. This corresponds with the fact that moderate users in the current research enjoyed knowledge content, collaborative groups, and skill-improvement websites like LinkedIn and GitHub.

3 Implications and limitations of the study:

The findings of this study have several important implications for students, educators, and institutions. Firstly, the results highlight the need for awareness among MCA students about the productive and time-bound use of social media. Educational platforms and faculty members can encourage students to use social media as a tool for learning, collaboration, and professional networking rather than for entertainment alone. The study also implies that integrating academic communities and coding forums through platforms like LinkedIn, GitHub, and YouTube can enhance learning outcomes. Although the study offers valuable findings, it has some limitations. First, the study was carried out among a selected few MCA students coming from a particular region or institution, which might not be representative of all postgraduate learners. The findings are thus not projectable to a wider population. Second, the data relied on self-reported feedback, which can be subject to personal bias or inaccuracy.

6. Conclusion

The current research concludes that social media has a twofold effect on MCA students — both a strong learning aid and a primary source of distraction, depending upon the use. The findings indicate that moderate and deliberate use of sites like LinkedIn, GitHub, and YouTube assists students to improve their technical skills, gain access to study materials, and establish professional relationships. Yet, excessive use of entertainment content creates procrastination, bad time management, and decreased academic concentration. Social media usage patterns also strongly impact the mental health of students as it influences their motivation and performance levels. Thus, the findings validate the hypothesis that the social media impact varies with the goal, length of usage, and extent of self-regulation employed by the user. It is advised that students practice digital discipline and use time-management skills to balance their online and academic life. Colleges and universities must also organize awareness programs and digital wellness workshops to encourage good social media behaviour. In summary, when appropriately used, social media can serve as a useful academic and professional tool for MCA students and not as a distraction.

1 Summary of key findings:

The current research concludes that social media has a twofold effect on MCA students — both a strong learning aid and a primary source of distraction, depending upon the use. The findings indicate that moderate and deliberate use of sites like LinkedIn, GitHub, and YouTube assists students to improve their technical skills, gain access to study materials, and establish professional relationships. Yet, excessive use of entertainment content creates procrastination, bad time management, and decreased academic concentration. Social media usage patterns also strongly impact the mental health of students as it influences their motivation and performance levels. Thus, the findings validate the hypothesis that the social media impact varies with the goal, length of usage, and extent of self-regulation employed by the user. In the summary, when appropriately used, social media can serve as a useful academic and professional tool for MCA students and not as a distraction.

2 Contributions to the field:

1.Improved Insight into Student Behaviour:

The research offers an understanding of the ways in which MCA students employ social media for learning and non-learning activities, presenting a thorough insight into its impact on study routines, productivity, and mental health.

2.Evidence-Based Relationship Between Use and Performance:

Through examining social media use patterns, the research creates a direct relationship between high amounts of entertainment-oriented usage and poor academic performance, while it also identifies the positive impacts of learning and career-related use.

3.Guidance for Institutions and Educators:

The results can assist educational institutions in planning digital literacy courses, workshops, and policies that promote purposeful and responsible social media use by students.

4.Foundation for Future Research:

The study points to areas of gap, including platform-specific influences and long-term changes in behaviour, offering a basis for future research on how social media affects students in technical and higher education environments.

5.Practical Recommendations for Students:

The study provides practical recommendations for students on time management, digital discipline, and balanced use, both towards academic achievement and mental health.

3 Recommendations for future research:

1.Larger and More Diverse Sample:

Subsequent research must involve students from various institutions, regions, and fields of study to enable generalization of the findings across diverse groups.

2.Platform-Specific Analysis:

Students might be studied in relation to the effect of specific social media sites (e.g., Instagram, YouTube, LinkedIn, Twitter) on study performance, productivity, and mental health because the impact of each site may vary across students.

3.Longitudinal Studies:

Longitudinal studies would facilitate insights into the ways in which usage patterns of social media change over time and their long-term impacts on academic performance and psychological well-being.

5.Academic and Career Outcomes Focus:

Future studies may investigate how social media use leads to skill acquisition, work readiness, and career networking, aside from its impact on grades.

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Conflict of Interest

The authors declare that there is no conflict of interest in the conduct or outcomes of this research.

Authors' Biography

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