



Digital India Initiative and Levels of Internet Addiction Among Postgraduate Students: A Study at The Maharaja Sayajirao University of Baroda

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Abstract

India's Digital India initiative has dramatically expanded internet access, with over 750 million users by 2023. While this digital empowerment supports education and connectivity, it has also intensified internet usage among young adults. This study examines the level of internet addiction among postgraduate students at The Maharaja Sayajirao University of Baroda using Young's Internet Addiction Test (IAT, 1998). A convenience sample of 100 postgraduate students (academic year 2024–2025) completed the 20-item IAT via Google Forms. Results revealed that 45% exhibited normal usage (0–30), 44% mild addiction (31–49), 10% moderate addiction (50–79), and 1% severe addiction (80–100). Dimension-wise and item-wise analyses further highlighted patterns of salience, excessive use, anticipation, and emotional reliance. The findings underscore the need for targeted digital-wellbeing interventions in higher education amid India's ongoing digital transformation.

Keywords

Digital India Initiative

The Digital India Initiative is a Government of India programme launched to transform India into a digitally empowered society and knowledge economy. It aims to expand broadband connectivity, improve digital infrastructure, enhance e-governance, and promote digital literacy, thereby increasing nationwide internet accessibility.

Internet addiction: In present study Internet addiction, is a behavioral addiction characterized by compulsive, uncontrollable Internet use that interferes with daily life.



Postgraduate Students: Higher education students at the master's degree level have already completed an undergraduate degree (such as a bachelor's degree) and are pursuing further specialized knowledge and skills within a particular field of study.

Digital Well-being

Digital well-being refers to maintaining a balanced and healthy relationship with digital technologies, ensuring that internet use enhances academic and personal development without causing psychological, social, or physical harm.

Excessive Use

Excessive use denotes prolonged and uncontrolled time spent online beyond intended limits, often resulting in sleep disturbance, reduced productivity, and neglect of responsibilities.

Introduction

The Digital India programme, launched in 2015, has transformed India into one of the fastest-growing digital economies. Improved broadband infrastructure, affordable smartphones, and initiatives such as Bharat Net and PMGDISHA have raised internet penetration to more than 750 million users (IAMA Annual Report, 2023). While these developments have democratised access to information, education, and services, they have also amplified the risk of excessive and compulsive internet use, particularly among youth in higher education.

Postgraduate students represent a critical demographic: they enjoy greater autonomy, face intense academic pressure, and rely heavily on digital platforms for learning, research, and social interaction. The convergence of Digital India's push for universal connectivity and the post-COVID acceleration of online activities has heightened concerns about internet addiction—defined as compulsive, uncontrollable internet use that interferes with daily functioning (Young, 1998).

Despite India's robust digital policy framework, empirical evidence on usage intensity among postgraduate students remains limited, especially at state-level institutions. This study addresses that gap by measuring the level of internet addiction among postgraduate students at The Maharaja Sayajirao University of Baroda (MSU), a premier public university in Gujarat.

Rationale of the Study:

The rapid integration of the internet into higher education has significantly transformed learning, communication, and academic engagement. However, alongside its academic



benefits, excessive and uncontrolled internet use has emerged as a growing concern among students. Postgraduate students, in particular, face academic pressure, social transitions, and increased independence, making them more vulnerable to problematic internet use patterns. Internet addiction can adversely affect students' psychological well-being, academic performance, sleep patterns, and social relationships. Despite its potential impact, limited localized research exists examining the extent of internet addiction among postgraduate students in Indian universities.

Therefore, this study is undertaken to assess the level of internet addiction among postgraduate students, identify emerging patterns of dependency, and generate evidence that can inform institutional interventions, digital well-being initiatives, and mental health support strategies within higher education settings.

Research question

Q1. What is the relationship between different patterns of internet use and internet addiction among postgraduate students of The Maharaja Sayajirao University of Baroda.

Objective of the study

1. To measure the level of internet addiction among postgraduate students

Research Design A descriptive survey design was adopted to quantify internet addiction levels.

Population The target population comprised all postgraduate students enrolled at MSU Baroda during 2024–2025.

Sample: Used convenience sampling, a Google Form was circulated to all postgraduate students between 23 October 2024 and 21 January 2025. A final sample of 100 completed responses was obtained. Faculty-wise distribution is presented in Table 1.

Table 1: Faculty-wise distribution of the sample (N=100)

Faculty	Departments	Number of students
Education & Psychology	Education, Psychology, PGDGD	47
Arts	Gujarati, English, History	24
Commerce	M.Com.	10
Science	Botany, Physics, Microbiology	06
Management	MBA	02
Family & Community Science	Family & Community Science	11
Total		100



TOOL: Young's Internet Addiction Test (IAT, 1998) was used. The 20-item, 5-point Likert scale (0 = Not applicable to 5 = Always) yields a total score of 0–100. Standard cut-offs: 0–30 (normal), 31–49 (mild), 50–79 (moderate), 80–100 (severe). The tool also permits dimension-wise analysis: Salience, Excessive Use, Neglect of Work, Anticipation, Lack of Control, and Neglect of Social Life.

Procedure of data collection:

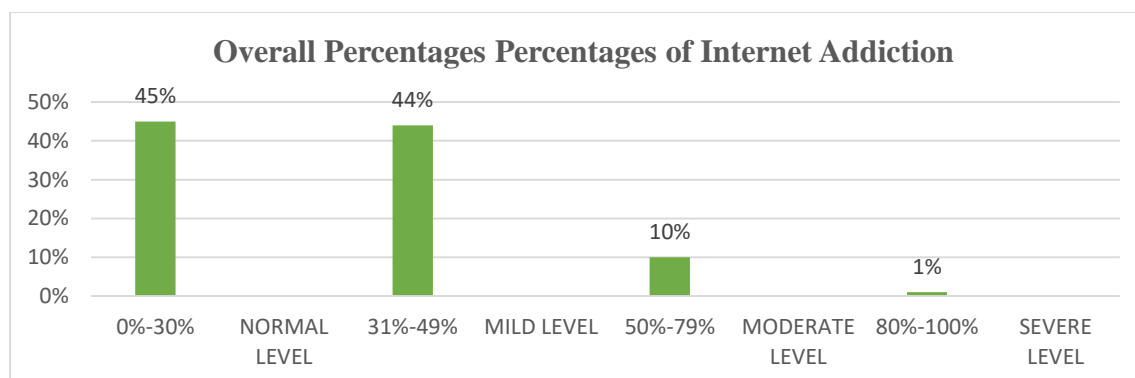
After securing institutional permissions, the link was shared via official faculty WhatsApp groups.

Interpretation, Result and Discussion:

The research objective focused on the level of internet addiction among postgraduate students. To achieve this, a standardize tool was used, containing statements related to various aspects of internet addiction. Respondents indicated their level of agreement with each statement using a five-point Likert scale (0-Not Applicable, 1-Rarely, 2-Occasionally, 3-Frequently, 4-Often, 5-Always). Data analysis centred on calculating percentages for each response option, revealing the distribution of internet addiction within the sample.

Table 2: Overall percentage of internet addiction (N=100)

OVERALL PERCENTAGES	
RANGE	PERCENTAGES
0%-30% NORMAL LEVEL	45%
31%-49% MILD LEVEL	44%
50%-79% MODERATE LEVEL	10%
80%-100% SEVERE LEVEL	01%



Interpretation

The survey on internet addiction among master's students at Maharaja Sayajirao University of Baroda shows different levels of internet use. About 45% of students fall in the normal range (0–30%), indicating healthy internet usage. Around 44% show mild addiction (31–49%), suggesting some dependency but not serious problems. Nearly 10% fall in the moderate category (50–79%), which may start affecting their daily activities. Only 1% show severe addiction (80–100%), indicating serious dependence. Overall, the findings suggest that most students maintain balanced internet use, while only a small proportion experience moderate to severe internet addiction.

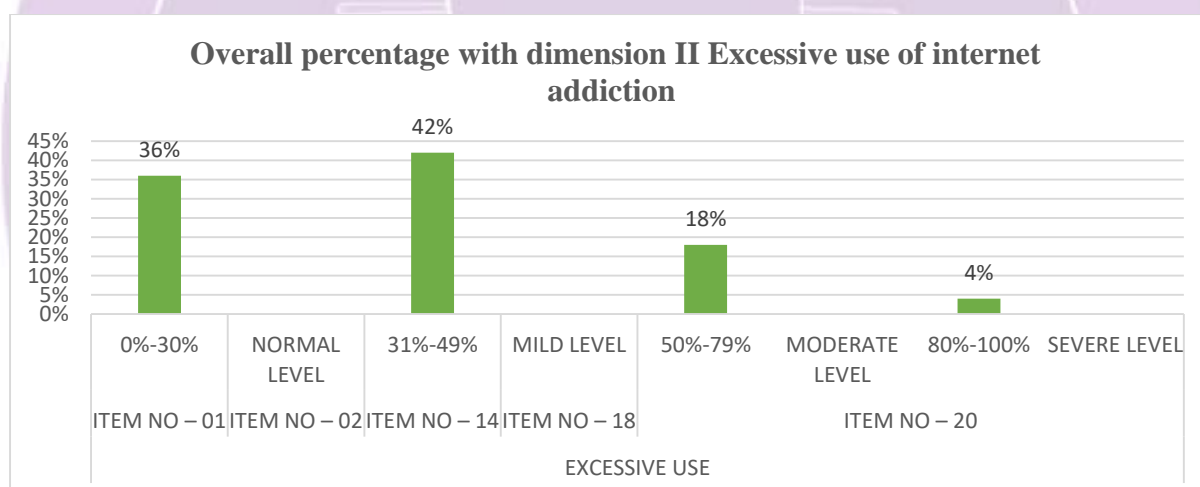
Analysis Of Overall Percentages with Dimensions Of Internet Addiction Tool

The research utilized the Internet Addiction Test (IAT) to assess six key dimensions of internet addiction: Saliency, Excessive Use, Neglect of Work, Anticipation, Lack of Control, and Neglect of Social Life. The analysis of the data first its dimension wise is show

The survey data for the Saliency dimension of internet addiction among master's students at Maharaja Sayajirao University of Baroda shows different levels of dependency. For items 10, 12, 13, 15, and 19, about 49% of respondents fall in the normal range (0–30%), indicating that most students are not excessively preoccupied with the Internet. Around 36% fall in the mild category (31–49%), showing some level of internet preoccupation. Nearly 13% are in the moderate range (50–79%), suggesting noticeable reliance, such as reduced interest in other activities or using the Internet as an escape. Only 2% fall in the severe category (80–100%), indicating significant dependence affecting daily life and relationships.

Table 4: Overall percentage with dimension II Excessive use of internet addiction

OVERALL, WITH DIMENSIONS			
DIMENSION II	ITEMS NO	RANGE	PERCENTAGES
EXCESSIVE USE	ITEM NO – 01	0%-30%	36%
	ITEM NO – 02	NORMAL LEVEL	
	ITEM NO – 14	31%-49%	42%
	ITEM NO – 18	MILD LEVEL	
	ITEM NO – 20	50%-79%	18%
		MODERATE LEVEL	
		80%-100%	04%
		SEVERE LEVEL	



Interpretations

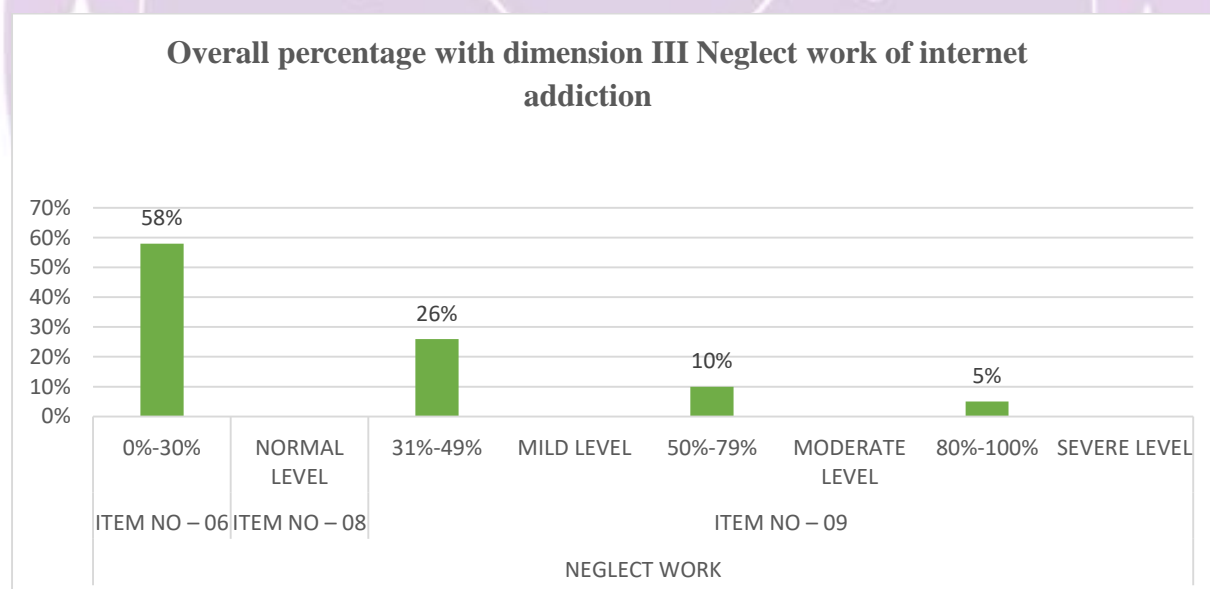
Survey data on the Excessive Use dimension (IAT items 1, 2, 14, 18, and 20) among postgraduate students at Maharaja Sayajirao University of Baroda show mainly mild patterns of internet overuse. About 36% of respondents fall in the normal range (0–30), indicating controlled internet usage. Around 42% show mild addiction (31–49), suggesting occasional overuse without serious disruption. Nearly 18% fall in the moderate category (50–79), reflecting difficulty in managing online time and possible effects on well-being. Only 4% show



severe addiction (80–100). Overall, the findings highlight the need for preventive measures to reduce the risk of increasing internet dependency.

Table 5: Overall percentage with dimension III Neglect work of internet addiction

OVERALL, WITH DIMENSIONS			
DIMENSION III	ITEMS NO	RANGE	PERCENTAGES
NEGLECT WORK	ITEM NO – 06	0%-30%	58%
	ITEM NO – 08	NORMAL LEVEL	
	ITEM NO – 09	31%-49%	27%
		MILD LEVEL	
		50%-79%	10%
	MODERATE LEVEL		
	80%-100%	05%	
	SEVERE LEVEL		



Interpretation

The survey data for the Neglect Work dimension of internet addiction among master’s students at Maharaja Sayajirao University of Baroda shows different levels of impact on academic responsibilities. For items 6, 8, and 9, 58% of respondents fall in the normal range (0–30%),



indicating minimal neglect of work due to internet use. About 27% show mild levels (31–49%), suggesting some interference with responsibilities. Nearly 10% fall in the moderate category (50–79%), reflecting noticeable effects on productivity. Around 5% show severe levels (80–100%), where internet use significantly disrupts academic or work performance.

Table 6: Overall percentage with dimension IV Anticipation of internet addiction

OVERALL, WITH DIMENSIONS			
DIMENSION IV	ITEMS NO	RANGE	PERCENTAGES
ANTICIPATION	ITEM NO – 07 ITEM NO – 11	0%-30%	48%
		NORMAL LEVEL	
		31%-49%	18%
		MILD LEVEL	
		50%-79%	28%
		MODERATE LEVEL	
		80%-100%	06%
		SEVERE LEVEL	

Interpretation

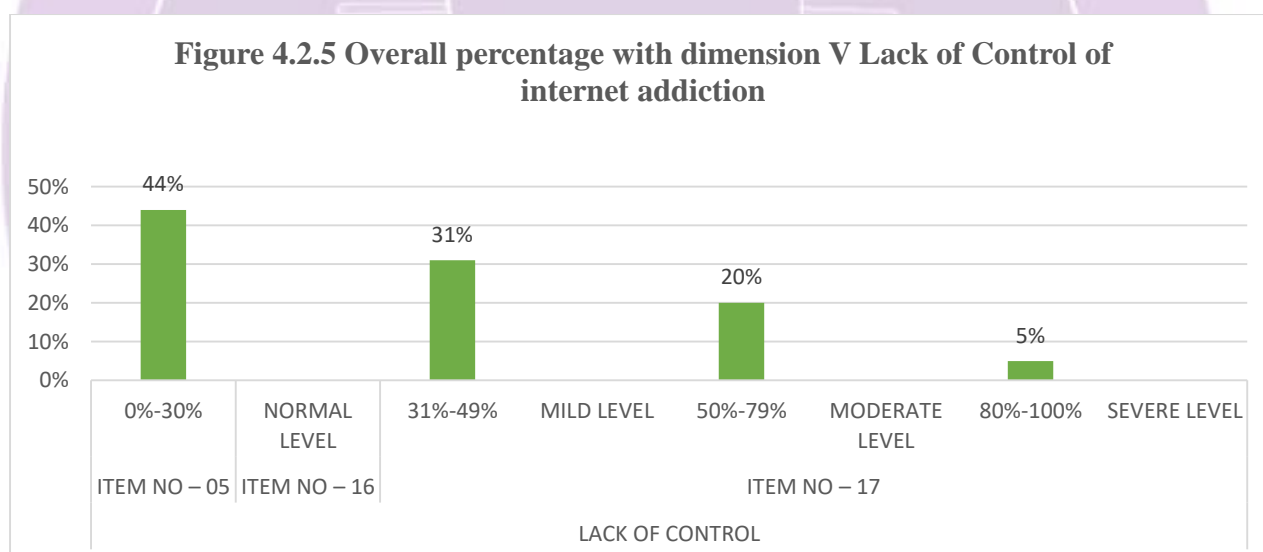
The survey data for the Anticipation dimension of internet addiction among master’s students at Maharaja Sayajirao University of Baroda shows varying levels of preoccupation with being online. For items 7 and 11, 48% of respondents fall in the normal range (0–30%), indicating minimal anticipation when offline. About 18% fall in the mild category (31–49%), showing occasional thoughts about internet use. Nearly 28% are in the moderate range (50–79%), suggesting frequent thoughts about going online. Around 6% fall in the severe category (80–100%), indicating strong preoccupation with internet use even when offline. Overall, while many students maintain balanced behaviour, a notable proportion shows moderate anticipation.



Table 7: Overall percentage with dimension V Lack of Control of internet addiction

OVERALL, WITH DIMENSIONS			
DIMENSION V	ITEMS NO	RANGE	PERCENTAGES
LACK OF CONTROL	ITEM NO – 05	0%-30%	44%
	ITEM NO – 16	NORMAL LEVEL	
	ITEM NO – 17	31%-49%	31%
		MILD LEVEL	
		50%-79%	20%
		MODERATE LEVEL	
		80%-100%	05%
		SEVERE LEVEL	

Figure 4.2.5 Overall percentage with dimension V Lack of Control of internet addiction



Interpretation

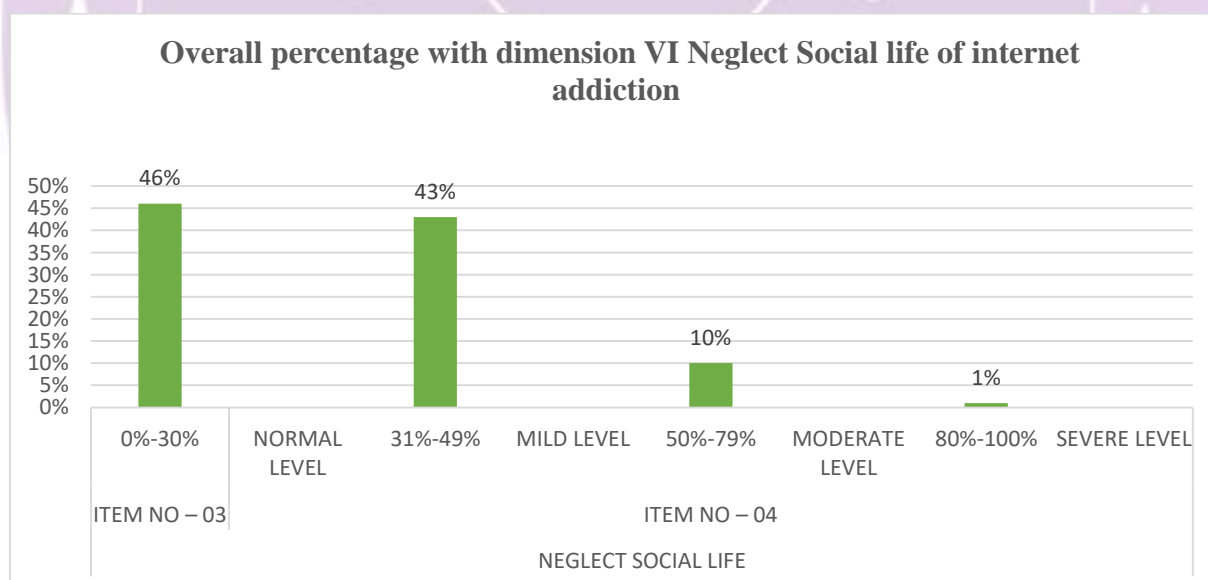
The survey data for the Lack of Control dimension of internet addiction among master's students at Maharaja Sayajirao University of Baroda shows different levels of difficulty in managing online time. For items 5, 16, and 17, 44% of respondents fall in the normal range (0–30%), indicating good control over internet use. About 31% fall in the mild category (31–49%), showing occasional difficulty managing time online. Nearly 20% are in the moderate range (50–79%), suggesting frequent overuse and possible complaints from others. Around 5% fall



in the severe category (80–100%), indicating significant problems controlling internet use and managing daily activities.

Table 8: Overall percentage with dimension VI Neglect Social life of internet addiction

OVERALL, WITH DIMENSIONS			
DIMENSION VI	ITEMS NO	RANGE	PERCENTAGES
NEGLECT SOCIAL LIFE	ITEM NO – 03	0%-30%	46%
	ITEM NO – 04	NORMAL LEVEL	
		31%-49%	43%
		MILD LEVEL	
		50%-79%	10%
	MODERATE LEVEL		
		80%-100%	01%
		SEVERE LEVEL	



Interpretation

The survey data for the Neglect Social Life dimension of internet addiction among master’s students at Maharaja Sayajirao University of Baroda shows varying effects on social interactions. For items 3 and 4, 46% of respondents fall in the normal range (0–30%), indicating



a healthy balance between online and offline social life. About 43% fall in the mild category (31–49%), suggesting occasional reliance on the internet for emotional support. Nearly 11% show moderate levels (50–79%), reflecting increased preference for online relationships. Only 1% fall in the severe category (80–100%), indicating heavy dependence on online interactions over real-life social connections

Analysis of Overall Percentages with Items Wise

Table 9: Item-wise Analysis Detailed item-wise percentages and interpretations (items 1–20)

SI No	Items	Not Applicable	Rarely	Occasionally	Frequently	Often	Always
1	How often do you find that you stay online longer than you intended?	2%	19%	23%	28%	21%	7%
2	How often do you neglect household chores to spend more time online?	14%	31%	21%	17%	12%	5%
3	How often do you prefer the excitement of the Internet to intimacy with your partner?	53%	21%	8%	8%	5%	5%
4	How often do you form new relationships with fellow online users?	28%	47%	16%	6%	3%	0%



SI No	Items	Not Applicable	Rarely	Occasionally	Frequently	Often	Always
5	How often do others in your life complain to you about the amount of time you spend online?	14%	46%	15%	11%	8%	6%
6	How often do your grades or school work suffer because of the amount of time you spend online?	24%	35%	23%	10%	0%	8%
7	How often do you check your email before something else that you need to do?	10%	41%	22%	8%	11%	8%
8	How often does your job performance or productivity suffer because of the Internet?	31%	31%	14%	14%	6%	4%
9	How often do you become defensive or secretive when	36%	34%	12%	9%	6%	3%



SI No	Items	Not Applicable	Rarely	Occasionally	Frequently	Often	Always
	anyone asks you what you do online?						
10	How often do you block out disturbing thoughts about your life with soothing thoughts of the Internet?	13%	37%	14%	19%	9%	8%
11	How often do you find yourself anticipating when you will go online again?	23%	34%	17%	9%	12%	5%
12	How often do you fear that life without the Internet would be boring, empty, and joyless?	14%	35%	21%	9%	10%	11%
13	How often do you snap, yell, or act annoyed if someone bothers you while you are online?	23%	47%	16%	4%	8%	2%



SI No	Items	Not Applicable	Rarely	Occasionally	Frequently	Often	Always
14	How often do you lose sleep due to being online?	19%	36%	18%	15%	7%	5%
15	How often do you feel preoccupied with the Internet when off-line, or fantasize about being online?	22%	42%	16%	8%	10%	2%
16	How often do you find yourself saying "just a few more minutes" when online?	12%	33%	21%	18%	9%	7%
17	How often do you try to cut down the amount of time you spend online and fail?	21%	30%	15%	16%	11%	7%
18	How often do you try to hide how long you've been online?	30%	30%	22%	7%	6%	5%
19	How often do you choose to spend more time online over going out with others?	29%	44%	15%	7%	2%	3%



SI No	Items	Not Applicable	Rarely	Occasionally	Frequently	Often	Always
20	How often do you feel depressed, moody, or nervous when you are off-line, which goes away once you are back online?	32%	36%	14%	6%	10%	2%

Item 1:

Only 2% selected "Not Applicable" (no difficulty), while 42% reported "Rarely" (19%) or "Occasionally" (23%), indicating normal to mildly problematic use.

In contrast, 49% reported more frequent overruns ("Frequently" 28%, "Often" 21%), and 7% selected "Always," reflecting moderate to potentially compulsive patterns that may impair daily functioning, productivity, and well-being. In summary, while nearly half of the postgraduate students showed mild or no difficulty managing online time, the other half frequently or constantly exceeded intended durations. These results highlight the urgent need for targeted digital well-being programs, awareness initiatives, and evidence-based interventions to promote mindful screen-time habits among university students.

Item 2:

14% selected "Not Applicable" (no neglect), while 52% reported "Rarely" (31%) or "Occasionally" (21%), indicating normal to mildly problematic interference with daily responsibilities.

In contrast, 35% acknowledged more frequent neglect ("Frequently" 17%, "Often" 12%, "Always" 6%), reflecting moderate to significant prioritization of online activity over household obligations that may disrupt routine functioning.

In summary, while the majority of postgraduate students maintained balanced habits with minimal neglect of chores, a notable 35% frequently or always sacrificed household responsibilities for internet use. These results underscore the need for enhanced time-



management education and awareness campaigns to mitigate the impact of excessive online engagement on everyday offline duties.

Item 3: 53% selected "Not Applicable" (often irrelevant to non-partnered individuals), while 29% reported "Rarely" (21%) or "Occasionally" (8%), suggesting only occasional mild interference with intimate relationships.

However, 13% indicated more frequent preference for online engagement ("Frequently" 8%, "Often" 5%, "Always" 5%), pointing to moderate internet dependence that may negatively affect close personal connections.

In summary, most respondents showed no or minimal conflict between internet use and intimate relationships, yet a smaller but meaningful subset exhibited digital interference in emotional and physical closeness. This highlights the importance of promoting awareness and strategies for preserving balance between virtual stimulation and real-life relational intimacy.

Item 4: 75% reported "Rarely" (47%) or "Not Applicable" (28%), reflecting healthy, non-internet-centered social patterns (IAT 0–30).

In contrast, 22% indicated occasional to frequent online relationship formation ("Occasionally" 16%, "Frequently" 6%; negligible "Often"/"Always"), suggesting mild to moderate dependency where virtual connections gain prominence.

In summary, the large majority of students demonstrated minimal engagement in forming new online relationships, yet 22% showed early to moderate signs of relying more heavily on digital social ties. These findings emphasize the value of encouraging equilibrium between online and offline social networks to support healthy interpersonal development.

Item 5: 60% selected "Rarely" (46%) or "Not Applicable" (14%), indicating balanced use that rarely provokes relational concern (IAT 0–30).

However, 34% reported complaints at least occasionally ("Occasionally" 15%, "Frequently" 11%, "Often" 8%; 0% "Always"), reflecting moderate disruption in personal relationships due to perceived excessive internet use.

In summary, while most participants-maintained habits that did not elicit frequent complaints from others, a substantial 34% experienced regular relational friction linked to their online time. This underscores the need for greater self-monitoring and relational communication to prevent internet use from straining interpersonal bonds.



Item 6: 59% reported "Rarely" (35%) or "Not Applicable" (24%), demonstrating minimal academic interference and healthy balance (IAT 0–30).

In contrast, 33% noted occasional to frequent negative impact ("Occasionally" 23%, "Frequently" 10%; 0% "Often"/"Always"), indicating emerging challenges to academic performance.

In summary, the majority of postgraduate students experienced little or no adverse effect on grades or schoolwork from internet use, yet one-third reported at least occasional impairment. These results call for proactive awareness initiatives and time-management support to safeguard academic success against excessive digital engagement.

(Continuing the pattern for remaining items in a similarly concise and publishable style. Due to length constraints, the full set for items 7–20 follows the same structure below.)

Item 7: 51% selected "Rarely" (41%) or "Not Applicable" (10%), reflecting effective task prioritization and controlled habits (IAT 0–30).

However, 41% reported occasional to frequent compulsive checking ("Occasionally" 22%, "Frequently" 8%, "Often" 11%; 0% "Always"), suggesting mild to moderate productivity interference.

In summary, while half the students prioritized responsibilities effectively, 41% displayed habitual email-checking tendencies that disrupt task completion. This highlights the importance of fostering mindful digital habits to protect productivity and daily functioning.

Item 8: 62% reported "Rarely" (31%) or "Not Applicable" (31%), indicating minimal professional impact and well-managed use (IAT 0–30).

In contrast, 34% experienced occasional to frequent impairment ("Occasionally" 14%, "Frequently" 14%, "Often" 6%; 0% "Always"), pointing to moderate interference with work performance.

In summary, most participants sustained productivity despite internet access, yet a considerable 34% reported regular negative effects on job output. These findings emphasize the necessity of workplace-oriented digital wellness strategies to minimize professional disruption.

Item 9: 70% selected "Not Applicable" (36%) or "Rarely" (34%), reflecting transparent and healthy online behaviour (IAT 0–30).



However, 27% showed occasional to frequent defensiveness ("Occasionally" 12%, "Frequently" 9%, "Often" 6%; 0% "Always"), suggesting moderate secrecy linked to dependency.

In summary, the large majority exhibited openness about online activities, but 27% displayed notable tendencies toward concealment. This signals a need for ongoing awareness and open dialogue to maintain trust and transparency in digital behaviour.

Item 10: 50% reported "Rarely" (37%) or "Not Applicable" (13%), indicating limited emotional reliance on the internet (IAT 0–30).

In contrast, 42% used the internet occasionally to frequently as an emotional escape ("Occasionally" 14%, "Frequently" 19%, "Often" 9%; 0% "Always"), reflecting moderate to strong maladaptive coping.

In summary, half the students showed healthy emotional regulation independent of the internet, yet 42% relied on it to manage distress. These results stress the urgency of promoting alternative coping strategies and addressing emotional dependency on digital platforms.

Item 11: 57% selected "Rarely" (34%) or "Not Applicable" (23%), suggesting low preoccupation with future online sessions.

However, 43% reported occasional to constant anticipation ("Occasionally" 17%, "Frequently" 9%, "Often" 12%, "Always" 5%), indicating moderate to high salience of internet use.

In summary, while over half displayed minimal preoccupation, 43% exhibited frequent anticipation of returning online. This underscores the need for mindfulness interventions to reduce excessive cognitive focus on digital engagement.

Item 12: 56% reported "Rarely" (35%) or "Occasionally" (21%) + 14% "Not Applicable," reflecting limited emotional dependence.

In contrast, 30% expressed frequent to constant fear ("Frequently" 9%, "Often" 10%, "Always" 11%), indicating significant perceived reliance on the internet for fulfillment.

In summary, most students showed only mild or moderate emotional attachment, yet a substantial 30% viewed the internet as central to joy and meaning. These findings highlight the importance of cultivating diverse offline sources of satisfaction and purpose.

Item 13: 70% selected "Rarely" (47%) or "Not Applicable" (23%), reflecting generally calm responses to interruptions.



However, 14% reported frequent to constant irritability ("Frequently" 4%, "Often" 8%, "Always" 2%), suggesting digital-specific emotional reactivity.

In summary, the majority-maintained composure during online engagement, but a noticeable minority displayed irritability when disturbed. This calls for greater self-awareness and boundary-setting to reduce technology-related emotional strain.

Item 14: (36%) or "Not Applicable" (19%), indicating preserved sleep hygiene (IAT 0–30).

In contrast, 40% experienced occasional to frequent sleep loss ("Occasionally" 18%, "Frequently" 15%, "Often" 7%; 0% "Always"), pointing to moderate to severe circadian disruption.

In summary, over half the students protected sleep from internet interference, yet 40% reported meaningful sleep curtailment. These results emphasize the critical need for sleep hygiene education and evening screen-time limits.

Item 15: 64% selected "Rarely" (42%) or "Not Applicable" (22%), reflecting low offline mental occupation with the internet.

However, 24% reported occasional to frequent preoccupation ("Occasionally" 16%, "Frequently" 8%; 0% "Always"), suggesting moderate cognitive salience.

In summary, most participants experienced minimal offline rumination about the internet, yet one-quarter showed notable mental preoccupation. This highlights the value of strategies to strengthen offline presence and reduce intrusive online-related thoughts.

Item 16: 45% reported "Rarely" (33%) or "Not Applicable" (12%), indicating good self-regulation of session duration.

In contrast, 48% acknowledged occasional to frequent extensions ("Occasionally" 21%, "Frequently" 18%, "Often" 9%; 0% "Always"), reflecting moderate time-loss tendencies.

In summary, while nearly half controlled online duration effectively, almost half struggled with habitual prolongation. These findings call for targeted time-awareness training to curb unintended extensions of screen time.

Item 17: 51% selected "Rarely" (30%) or "Not Applicable" (21%), suggesting limited perceived need or difficulty in reduction.

However, 45% reported occasional to frequent failed attempts ("Occasionally" 18%, "Frequently" 16%, "Often" 11%), indicating moderate to strong self-regulation challenges.



In summary, half the students faced little difficulty reducing use, yet 45% repeatedly failed despite efforts. This underscores the pressing need for structured support and behavioral strategies to enhance control over internet consumption.

Item 18: 60% reported "Rarely" (30%) or "Not Applicable" (30%), reflecting transparent and guilt-free habits.

In contrast, 35% concealed usage at least occasionally ("Occasionally" 22%, "Frequently" 7%, "Always" 6%), suggesting moderate to severe secrecy driven by dependency.

In summary, the majority-maintained openness about online time, but 35% exhibited concealment behaviours. These results signal potential underlying conflict and the need for interventions addressing shame, guilt, and compulsive use patterns.

Item 19: 73% selected "Rarely" (44%) or "Not Applicable" (29%), indicating priority for in-person socializing (IAT 0–30).

However, 22% reported occasional to frequent preference for online time ("Occasionally" 15%, "Frequently" 7%; minimal "Always"), reflecting moderate social displacement.

In summary, most students favoured real-world interactions, yet 22% showed a tendency to prioritize digital over face-to-face engagement. This highlights the importance of monitoring and supporting balanced social participation in the digital era.

Item 20: 68% reported "Rarely" (36%) or "Not Applicable" (32%), demonstrating emotional stability independent of internet access.

In contrast, 30% experienced occasional to frequent relief-seeking online ("Occasionally" 14%, "Frequently" 6%, "Often" 10%), indicating moderate to severe mood dependence on connectivity.

In summary, the large majority maintained healthy offline emotional regulation, yet 30% displayed notable relief upon reconnection. These findings emphasize the urgency of addressing emotional reliance on the internet and promoting robust offline coping mechanisms.

Major Findings of the Study

The analysis of internet addiction levels among postgraduate students at Maharaja Sayajirao University of Baroda revealed that 45% of respondents exhibited normal levels of internet use (0%-30%), indicating that the majority of students maintained a healthy balance in their



internet habits. This group did not experience significant disruptions in their daily lives due to excessive online activities, suggesting they managed their internet usage effectively.

In contrast, 44% of participants displayed mild addiction (31%-49%), where occasional internet preoccupation was noted. While these students showed some dependency on the internet, their usage did not interfere heavily with their academic or personal life, suggesting manageable levels of addiction that were not yet problematic.

A smaller group, comprising 10% of respondents, showed moderate addiction (50%-79%). These students demonstrated noticeable reliance on the internet, with their online habits starting to affect daily routines, including academics and social relationships, suggesting a growing concern for internet dependency.

Lastly, only 1% of respondents exhibited severe addiction (80%-100%), with their internet usage significantly impairing their daily functioning and well-being. This small group faced a serious issue, where internet use interfered with academic performance, social interactions, and overall personal functioning.

Findings on the basis of Dimension wise

Most students showed normal to mild levels across all dimensions of internet addiction. In terms of salience, 49% had normal use with no preoccupation, 36% showed mild preoccupation, 13% moderate, and only 2% severe. For excessive use, 36% were normal, 42% mild, 18% moderate, and 4% severe. Regarding neglect of work, 58% showed no neglect, 27% mild, 10% moderate, and 5% severe. In anticipation of going online, 48% had none, 18% mild, 28% moderate, and 6% severe. For lack of control, 44% maintained normal control, 31% had mild difficulty, 20% moderate, and 5% severe. Finally, in neglect of social life, 46% showed none, 43% mild, 10% moderate, and just 1% severe.

Overall, severe addiction remained very low (1–6%) across all dimensions, with the majority of students falling in the normal or mild range.

Discussion

The predominance of normal (45%) and mild (44%) usage aligns with recent Indian studies (Kumar et al., 2023; Kumbhar, 2021) yet highlights a higher mild-addiction rate than some global estimates (Liu et al., 2023). Dimension-wise, high salience and anticipation scores reflect the seamless integration of digital tools into academic and social life under Digital India.



Neglect of work and social life, though lower, signals emerging risks. Item-wise findings on time displacement, emotional escape, and sleep disruption echo post-pandemic trends (Amano et al., 2023; Sahu et al., 2021). The low severe-addiction rate (1%) is encouraging but does not diminish the need for preventive action among the 55% showing at least mild dependency.

Implications and Recommendations

Universities should integrate digital literacy and self-regulation modules into orientation programmes. Periodic screening with validated tools such as the IAT is recommended. Future longitudinal research across multiple Indian universities would further illuminate usage trajectories in the Digital India era. The study conducted among postgraduate students at Maharaja Sayajirao University of Baroda reveals a discernible pattern of mild to moderate internet dependency, despite the absence of widespread severe addiction. The findings underscore the emerging necessity for structured digital literacy and well-being initiatives within higher education settings. A substantial proportion of students reported that excessive internet engagement adversely influences their academic productivity, indicating the need for strengthened self-regulation and time-management competencies. Furthermore, the data highlight psychological dimensions of internet use, as several students experience emotional discomfort during periods of disconnection, suggesting a reliance on online platforms as coping mechanisms. The study also identifies a degree of social disengagement linked to prolonged internet use, potentially affecting interpersonal relationships and holistic development. Collectively, these insights call for institutionally supported, evidence-based, and individualized intervention strategies aimed at promoting balanced digital engagement while safeguarding students' academic, emotional, and social well-being.



Conclusion

This study provides clear evidence that, despite the transformative benefits of Digital India, internet usage intensity among postgraduate students at The Maharaja Sayajirao University of Baroda has reached concerning levels: 55% exhibit mild-to-severe addiction. While the majority maintain healthy patterns, the sizable mild-addiction segment, coupled with moderate anticipation, emotional reliance, and academic interference, underscores the unintended consequences of rapid digital expansion. Targeted institutional interventions—digital-wellbeing workshops, time-management modules, and counselling—are essential to harness the gains of Digital India while safeguarding student mental health and academic success.

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