DIGITAL WELLBEING IN HIGHER EDUCATION: STUDENTS' AWARENESS, ADVANTAGES, ADVERSITIES AND ACTIONS

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DIGITAL WELLBEING IN HIGHER EDUCATION: STUDENTS' AWARENESS, ADVANTAGES, ADVERSITIES AND ACTIONS

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CERTIFICATE

This is to certify that the dissertation entitled "**DIGITAL WELLBEING IN HIGHER EDUCATION: STUDENTS' AWARENESS, ADVANTAGES, ADVERSITIES AND ACTIONS**" has been carried out by the investigator under my supervision and guidance for the partial fulfillment of the Degree of Master of Science [Faculty of Family and Community Sciences]. The matter presented in this dissertation has not been submitted for the award or any other degree or diploma.

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ABSTRACT

Digital technology has become an integral aspect of higher education in the modern world, influencing how students communicate, learn, and manage their academic lives. Even though technology has many advantages, such easier access to information, online education, and improved connectivity, it also has drawbacks. Stress, digital distractions, and excessive screen time are problems that many students face and can negatively impact their general wellbeing. A healthy lifestyle and technology use must coexist in harmony for both academic achievement and individual wellbeing.
"Digital Well-being in Higher Education: Awareness, Advantages, Adversities, and Actions," a study, investigates how students perceive digital well-being. To ensure diverse representation, 200 undergraduate and graduate students had been selected by stratified random sampling for the study, which was carried out at the Maharaja Sayajirao University of Baroda. The data was analysed using statistical techniques after insights were obtained using a structured paper-based questionnaire.

The study revealed varying levels of digital well-being awareness among students. While many students recognize the advantages of digital tools, such as increased access to information and improved learning outcomes, they also face adversities like digital distress, including anxiety, depression and strained personal relationships. Additionally, the study explored various actions students take to manage their digital well-being, such as digital detox and mindful consumption.

The findings revealed that 57% of students demonstrated a high awareness level of digital well-being. Awareness varied across demographics, with 61.6% of emerging adults showing higher awareness compared to 52.5% of mature learners. Male students had greater awareness (61%) than female students (53%). Students from higher socioeconomic backgrounds were more aware (64.2%) than those from lower socioeconomic groups (53.4%). In terms of digital tool usage, 66% of students using digital platforms for academic purposes showed higher awareness, while only 48% of nonacademic users did.

Regarding the advantages of digital tools, 57.4% of mature learners reported enhanced benefits, compared to 54.5% of emerging adults. A significant 61% of female students perceived enhanced advantages, while 51% of male students did.

Conversely, findings on adversities indicated that digital distress did not significantly differ across age, gender, or socio-economic status. However, it did vary with digital identity stress and the type of usage. Notably, 51% of the students felt that actions to improve digital well-being were less effective, while 49% found them more effective.

The study emphasizes the importance of promoting digital well-being among students to help them navigate the digital landscape effectively and maintain a healthy balance in their lives. It also highlights the necessity for targeted interventions and support systems to address the identified disparities and challenges.

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INTRODUCTION

1.1 Role of Digital Technology

Digital technologies have revolutionized education by increasing learning processes' efficiency, accessibility, and interactivity. Immersion experiences produced by virtual reality (VR) and augmented reality (AR) make learning more interesting by demythologizing difficult subjects (Shrestha & Khadka, 2022). Open access learning materials are made available by government programs like SWAYAM and the National Digital Library of India, which support self-paced learning and aid in closing the digital gap (Ministry of Human Resource Development [MHRD], 2017). Students in faraway locations can receive high-quality education thanks to the removal of geographic boundaries provided by virtual classrooms and gamified learning (Pearce, 2021). Digital platforms such as Zoom and Google Meet were essential in maintaining educational continuity during the COVID-19 pandemic, which led to a quick adoption of e-learning solutions by institutions (Shrestha & Khadka, 2022). Additionally, digital tools facilitate knowledge generation, data analysis, and research, encouraging innovation across a range of academic fields (Rezat & Geiger, 2024). Digital technologies continue to transform the educational environment into a more dynamic, adaptable, and inclusive system as higher education institutions increasingly include student-centered and interactive learning approaches. (Chapter, July 2022; The London Journal, November 2021)

While the digital technologies have revolutionized education by making learning accessible to all, its widespread use also raises important concerns regarding digital wellbeing. As students now rely on digital tools for education, it becomes essential to consider how this technology affects their health and overall balance in life.

1.2 Digital Well-being

Many authors have defined digital wellbeing in their own ways.

Kwietniewska et al., 2019 - “A positive feeling associated with the use of technology, striven by maintaining a balance between our ‘real’ and ‘online’ lives” (Kelly Widdicks, Oliver Bates, Mike Hazas and Adrian Friday)

Vanden Abeele, 2020 - “A subjective individual experience of optimal balance between the benefits and drawbacks obtained from mobile connectivity. This experiential state is comprised of affective and cognitive appraisals of the integration of digital connectivity into ordinary life. People achieve digital wellbeing when experiencing maximal controlled pleasure and functional support, together with minimal loss of control and functional impairment” (Mariek M. P. Vanden Abeele)

Gui, Fasoli, & Carradore, 2017 - A state where subjective well-being is maintained in an environment characterized by digital communication overabundance. Within a condition of digital well-being, individuals are able to channel digital media usage towards a sense of comfort, safety, satisfaction and fulfilment (Gui, Fasoli and Carridore) https://digitalwellbeing.org/what-is-digital-wellbeing-a-list-of-definitions/

According to **Vanden Abeele (2021)**, digital well-being is not merely the absence of harmful technology habits but rather a dynamic and multifaceted concept. It involves fostering positive relationships with technology through both **hedonic experiences** (immediate pleasure and enjoyment) and **eudemonic experiences** (meaningful and purposeful engagement). Digital well-being varies over time and depends on individual circumstances, meaning that what benefits one person may not be the same for another. Additionally, it is a **dualistic phenomenon**, where efforts to minimize negative effects—such as reducing screen time—might also limit the potential benefits that technology offers, such as connectivity and learning opportunities.

By encouraging good emotions, engagement, relationships, meaning, and achievement, digital well-being is essential for students' academic and personal lives and helps them flourish in a technologically advanced environment. Academically, it balances screen time and avoids digital fatigue, anxiety, and distractions while assisting students in maintaining attention, managing stress, and achieving meaningful learning outcomes. A guiding framework for guaranteeing both academic performance and personal fulfilment is provided by the PERMA model, which consists of Positive Emotions, Engagement, Relationships, Meaning, and Achievement. By encouraging thoughtful technology use, building emotional resilience, and creating deep connections with family, friends, and teachers, digital well-being can help individuals' mental and emotional health. Additionally, it reduces hazards like social isolation, cognitive overload, and social media demands, all of which can have a detrimental effect on mental health and academic performance. Teachers and institutions can guarantee that all

students gain from digital technologies while reducing their negative impacts by addressing inequalities in digital access and encouraging inclusive practices. In the end, putting students' digital well-being first enables them to flourish academically while leading healthy, satisfying personal lives.

https://bccampus.ca/2023/03/22/digital-pedagogy-toolbox-cultivating-digital-wellbeing-as-a-social-practice-with-the-perma-framework/

India's higher education embraces digital advancements with platforms like SWAYAM and SWAYAMPRABHA for accessible learning, National Digital Library and E-PG Pathshala for academic resources, and Shodhganga and e-ShodhSindhu for research support. Practical learning thrives through e-Yantra, FOSSEE, Spoken Tutorial, and Virtual Labs, while the National Internship Portal and National Educational Alliance for Technology bridge academia and industry, fostering a tech-driven, inclusive education system.

1.3 Dimensions of Digital Wellbeing

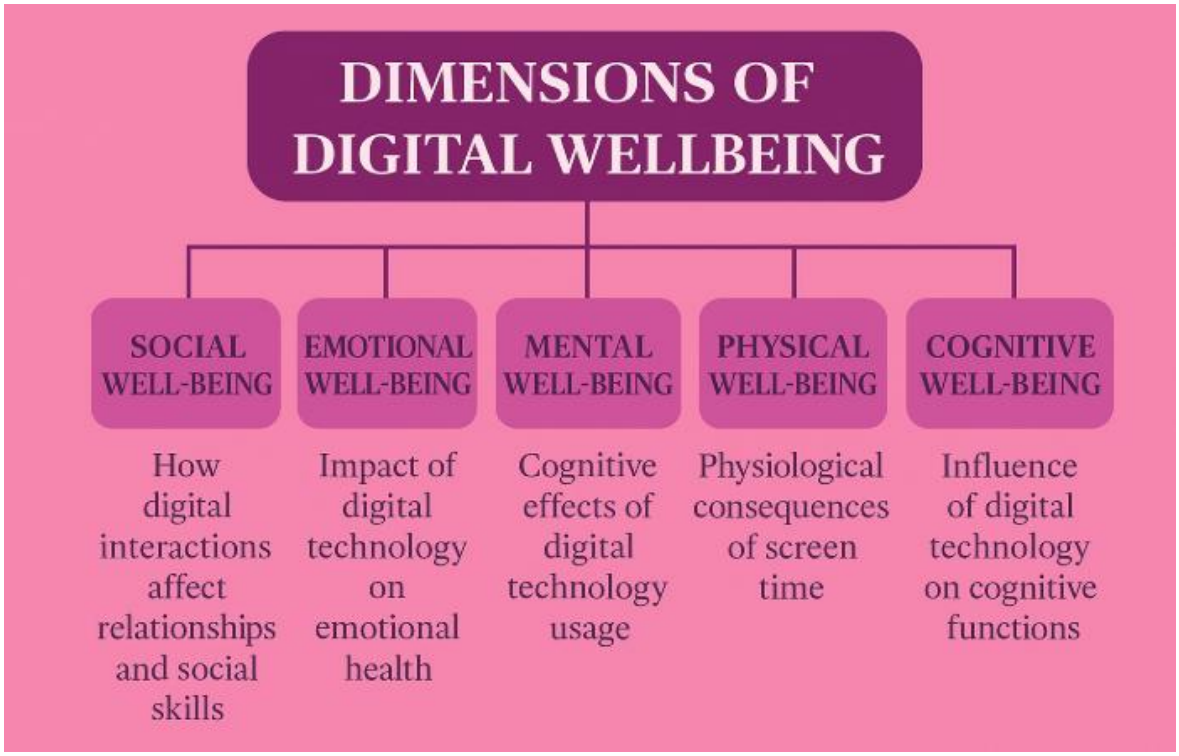


Figure 1 Dimensions of Digital Wellbeing

Recognizing and addressing these dimensions is crucial for fostering a balanced and healthy relationship with digital technology. https://livemorescreenless.org/digital-wellbeing/

1.4 Positive and Negative Impacts of Digital Tool Usage

Table 1 Showing Positive and Negative Impacts of Digital Tool Usage

Dimension	Positive Impact	Negative Impact
Social Wellbeing	Digital platforms enhance communication, maintaining relationships and reducing loneliness (Kakkar & Dangwal, 2025).	Excessive digital reliance may lead to social isolation and weaken interpersonal skills (Firth et al., 2020).
Emotional Well-being	Self-help tools, stress management apps, and digital interventions improve emotional resilience (Firth et al., 2020).	Excessive screen time and social media use increase anxiety, emotional exhaustion, and cognitive overload (Firth et al., 2020).
Mental Well-being	Educational apps, cognitive training, and video games enhance memory, multitasking, and problem-solving (Firth et al., 2020).	Overuse of digital tech leads to cognitive fatigue, reduced attention spans, and increased distractibility (Firth et al., 2020).
Physical Well-being	Digital fitness apps, wearables, and virtual workouts promote a healthy lifestyle (Firth et al., 2020).	Excessive screen time causes sleep disturbances, eye strain, and musculoskeletal issues (Firth et al., 2020).
Cognitive Well-being	E-learning, digital simulations, and tech-assisted tools improve critical thinking and creativity (Firth et al., 2020).	Digital distractions and information overload impair focus and deep learning (Firth et al., 2020).

1.5 Digital Well-Being: Students' Awareness

Digital well-being plays a crucial role in students' academic performance and personal lives as technology continues to shape modern education. While digital tools enhance access to

resources, learning flexibility, and communication, unregulated and excessive use can negatively impact students' well-being. Research suggests that digital habits, including screen time and social media usage, have a complex relationship with academic performance, as students who actively engage with digital platforms often exhibit varying levels of success depending on how technology is managed (Qureshi, 2024). Despite awareness of digital well-being features, many students struggle to implement effective strategies to reduce screen time and prevent digital overload, highlighting the gap between knowledge and actual behavioural change (Ambike et al., 2023). Overuse of screens is linked to stress, sleep issues, and a shorter attention span, all of which can impair mental and academic performance. Students must create individualized plans to properly manage their digital activity in light of these obstacles. By incorporating digital well-being initiatives into academic programs and enacting regulations that encourage mindful technology use, educational institutions may play a critical role in assisting students. Students can develop a balanced digital lifestyle by being encouraged to self-regulate screen time, establish boundaries for digital usage, and take regular breaks. As technology advances and becomes more integrated into professional settings, it is crucial to cultivate sustainable digital habits. In a society that is becoming more and more reliant on technology, students can maximize their academic achievement while protecting their mental health by placing a high priority on digital well-being.

1.6 Advantages of Digitalization in the Educational Process

Digitalization in education increases the accessibility to resources. It also promotes personalized learning of students thus improving the educational outcomes.

The following are the enlisted advantages of digitalization.

1.6.1 Increased Access to Education

One of the most transformative impacts of digitalization in education is its ability to remove geographical barriers. Online platforms provide global access to learning materials, allowing students to attend virtual classes and access educational content from anywhere. E-learning and distance education programs empower students in remote locations by enabling them to earn degrees and certifications without relocating (Trigyn Technologies, 2024).

1.6.2 Improved Learning Outcomes

Digital education provides students with engaging and immersive learning experiences that improve knowledge retention and comprehension. Interactive tools like gamification, virtual simulations, and AI-driven assessments create a dynamic learning environment that enhances student engagement. Additionally, data analytics in digital platforms help educators track student performance, enabling personalized learning interventions to improve academic success (Scientia Tutorials, 2024).

1.6.3 Flexibility and Self-Paced Learning

One of the greatest benefits of digital education is its flexibility, allowing students to learn at their own pace and schedule. Online education eliminates rigid class schedules, making it easier for learners to balance studies with work, travel, or personal commitments. Self-paced learning resources and recorded lectures provide students the freedom to access study materials anytime, reducing stress and improving academic efficiency (EduJournal, 2024).

1.6.4 Cost-Effectiveness and Affordability

Digital education presents cost-effective solutions by minimizing the need for physical infrastructure, printed textbooks, and transportation expenses. Online learning programs are often more affordable than traditional classroom-based education, making high-quality education accessible to a broader audience. Additionally, free and low-cost online courses have expanded learning opportunities, helping students gain valuable skills at lower costs (Trigyn Technologies, 2024).

1.7 Challenges of Digitalization

1.7.1 Digital Divide and Unequal Access

Not all students have equal access to high-speed internet, personal devices, or reliable digital infrastructure, creating disparities in learning opportunities. Students from rural areas or low-income backgrounds often struggle with limited connectivity and outdated technology, making online learning less effective (Reuters, 2024).

1.7.2 Information Overload and Distraction

With the vast amount of online learning materials, notifications, and multimedia resources, students often experience cognitive overload, making it difficult to filter relevant information. Frequent exposure to digital distractions such as social media and non-academic content further reduces concentration and academic productivity (Overture Partners, 2024).

1.7.3 Digital Fatigue and Mental Health Issues

Prolonged exposure to digital screens for lectures, assignments, and research leads to digital fatigue, stress, and eye strain. Constant screen time can also disrupt sleep patterns and contribute to anxiety, reduced motivation, and burnout among students, affecting overall academic performance (Toxigon, 2024).

1.7.4 Technical Issues and Learning Interruptions

Students frequently face network failures, system crashes, software compatibility issues, and platform downtimes, disrupting their online learning experience. Limited technical support and insufficient digital literacy skills make it challenging for students to resolve these issues quickly, causing frustration and academic setbacks (Overture Partners, 2024).

1.7.5 Data Privacy and Cybersecurity Risks

Higher education institutions store vast amounts of student data, including academic records, personal details, and financial information. Cybersecurity threats, phishing attacks, and data breaches pose serious risks, making students vulnerable to identity theft and online exploitation. Many students lack awareness of digital privacy practices, further increasing their exposure to cyber risks (Toxigon, 2024).

1.8 Adversities of Digital Use

1.8.1 Adversities in Mental Health

Even though there are many advantages to digital technology, excessive use can have a number of negative impacts on mental health, especially for students who find it difficult to balance their online and offline obligations. (Orben et al., 2019).

1.8.1.1 Increased Anxiety and Depression

- "Constant use of social media has been linked to higher rates of anxiety and depression, particularly among adolescents and young adults" (Twenge et al., 2018).
- "Exposure to idealized portrayals of others' lives on platforms like Instagram and Facebook can lead to feelings of inadequacy and increased stress" (Orben et al., 2019).
- "Fear of missing out (FOMO) on social events or achievements displayed online can result in heightened stress levels" (Huang, 2017).

1.8.1.2 Social Comparison and Low Self-Esteem

- "Engaging in social comparison on social media platforms can result in dissatisfaction with one's own life and lower self-esteem" (Fardouly et al., 2015).
- "Unrealistic portrayals of success, beauty, and happiness create pressure to meet unattainable standards, leading to self-esteem issues" (Huang, 2017).

1.8.1.3 Strained Personal Relationships

- "Excessive screen time reduces the quality of in-person interactions with family and friends, weakening emotional connections" (Kushlev & Dunn, 2019).
- "Ignoring face-to-face conversations in favour of social media or texting can cause interpersonal conflicts and make loved ones feel neglected" (McDaniel & Radesky, 2018).

1.8.1.4 Reduced Productivity and Workplace Stress

- "Constant notifications and digital distractions disrupt focus and contribute to decreased productivity" (Mark et al., 2018).
- "Checking emails and responding to work-related messages outside of office hours blurs the boundary between work and personal life, increasing burnout and mental exhaustion" (Derks et al., 2014).

1.8.2 Adversities in Physical Health

In addition to negatively impacting mental health, excessive use of digital devices can cause a number of physical health problems, especially when combined with a sedentary lifestyle and extended screen time. (Christensen et al., 2016).

1.8.2.1 Disrupted Sleep Patterns

- "Excessive screen time, especially before bedtime, interferes with sleep quality by reducing melatonin production, making it harder to fall asleep" (Chang et al., 2015).
- "Poor sleep leads to fatigue, mood swings, and difficulty concentrating" (Hale & Guan, 2015).

1.8.2.2 Weakened Immune System and Weight Gain

- "Lack of sleep weakens the body's ability to fight infections and disrupts hormones that regulate appetite, increasing the risk of weight gain" (Leproult & Van Cauter, 2010).

1.8.2.3 Increased Sedentary Lifestyle

- "Prolonged screen time correlates with decreased physical activity, contributing to obesity, heart disease, and muscle weakness" (Christensen et al., 2016).

1.8.2.4 Posture-Related Issues ("Tech Neck")

- "Constantly looking down at a phone or laptop strains the neck and spine, leading to chronic pain in the neck, shoulders, and back" (Sun et al., 2016).

1.8.2.5 Eye Strain and Headaches ("Computer Vision Syndrome")

- "Staring at screens for prolonged periods causes digital eye strain, leading to dry eyes, blurred vision, and headaches" (Sheppard & Wolffsohn, 2018).

1.9 Actions to Manage and Balance Digital Usage

To effectively manage and balance digital usage, students can prioritize academic tasks. A well balance of online and offline activities can promote a healthier life with sound mental,

physical, emotional and social wellbeing. Following is enlisted various actions which can help in managing balanced digital usage.

- **Digital Detox**: Periodically disconnect from digital devices to recharge and refocus. This could involve taking short breaks during the day or scheduling digital-free weekends.
- **Mindful Consumption**: Practice mindful use of technology by setting specific times for checking emails and social media. Limit the use of devices before bedtime to improve sleep quality.
- **Notifications Management**: Turn off non-essential notifications on your devices to reduce the frequency of interruptions. Designate specific times to check messages and updates.
- **Create Technology-Free Zones**: Designate certain areas of your home or workspace as technology-free zones to promote better focus and quality time with loved ones. Making our bedrooms tech-free is a great way to guarantee several hours of rest and recovery free from distractions.
- **Prioritize Face-to-Face Interactions**: Try to spend quality time with friends and family without the distraction of screens. Engage in meaningful conversations and activities, like taking a walk, enjoying a cup of coffee, or exploring nature.
- **Digital Well-Being Tools**: Utilize digital well-being features available on smartphones and apps that track and limit screen time. These tools can provide insights into your digital habits and help you set usage goals.
- **Write a Tech Vision Statement**: We can write a vision statement for how, why, and when we use technology. Incorporating what we want our technology to do for us (keep us connected with loved ones, support our intellectual curiosity, help us with day-to-day tasks etc.) and what we want to guard against (excessive use, impacts on our physical health, neglecting the greater world around us etc.) is an impactful way to put boundaries around how we use the tools of technology.

Digital distraction is a pervasive issue in our modern world. The constant connectivity and enticing design of digital technologies make it challenging to break free from its grip. However, by recognizing the negative impact of digital distraction and implementing strategies to combat it, we can regain control over our lives and prioritize our well-being. Balancing the

benefits of technology with mindful consumption is essential in preserving our health and enhancing our overall quality of life.

https://www.massgeneral.org/news/article/digital-distraction-and-its-impact-on-yourhealth

To summarize the above-mentioned points related to students' digital wellbeing's awareness, advantages, adversities and Actions, investigator felt the urgent need for research inquiry in this context.

Investigating students' awareness related to digital wellbeing as a concept, may provide valuable insights, which may have potential to contribute in developing policies and support systems that may help students to have healthy digital experiences.

Thus, following few questions arise in the mind of the investigator:

- What is the level of awareness regarding digital well-being among the selected students at The Maharaja Sayajirao University of Baroda?
- How does digital well-being awareness vary across variables such as age, gender, socio-economic status, and academic discipline?
- What are the perceived advantages and adversities of digital well-being and distress among the respondents?
- Are there significant differences in digital well-being awareness, advantages, and adversities based on students' demographics and digital usage patterns?
- What actions do students consider necessary for improving their digital wellbeing?

1.10 Statement of the Problem

To seek answers to the above stated questions it was decided to undertake a study on **"Digital Wellbeing in Higher Education: Students' Awareness, Advantages, Adversities & Actions."**

1.11 Rationale of the Study

Given how commonplace digital technology is becoming in students' daily lives, research on digital wellbeing among college students is essential. College students are continuously using technology for social, intellectual, and recreational reasons due to the quick uptake of digital gadgets and online resources. As the distinction between constructive use and digital addiction

becomes hazier, this heavy use has serious consequences for their mental, bodily, and social well-being.

The study is especially crucial in addressing the rising worries about mental health conditions including anxiety and despair, internet addiction, and young adults' general decline in productivity. Understanding how these practices impact students' wellness is essential as they balance the responsibilities of academic life with their continual use of digital gadgets. By examining ideas like digital balance, techno-wellbeing, and techlife balance, particularly in relation to college students, this study seeks to close the gap in the body of existing work.

Furthermore, the study's conclusions might influence instructional tactics, assisting educators in creating focused interventions that support positive digital behaviours, which can improve student achievement. The knowledge gathered from this study can be used by policymakers to create laws that promote digital wellbeing, provide fair access to digital resources, and alleviate the digital divide. The study can also help mental health practitioners better understand the difficulties students encounter with digital wellbeing, which can help them create more potent treatments for conditions like digital addiction, anxiety, and despair.

In the end, the current study might draw attention to the significance of digital wellness as perceived by certain students, which would aid in the creation of interventions to encourage positive digital behaviours in higher education. The Maharaja Sayajirao University has 14 faculties across the campus where over 55000 students' study. The policy-based action project may be designed well to inculcate healthy digital habits amongst students.

1.12 Rationale of the Sample

University life is a period of great transition and development as students balance their academic obligations, social networks, and personal growth as they enter adulthood. They are an important population to research in terms of digital habits because of this stage. Given how important digital devices are to their social and academic life, knowing how students use them can provide important insights about new trends and the direction of digital activities in the future. But students are also particularly susceptible to the negative effects of digital stress. Excessive screen usage is frequently caused by the ongoing pressure of coursework, deadlines, and academic expectations, which exacerbates stress, tiredness, and mental exhaustion.

Another complication is added by social media, which keeps them linked but also exposes them to constant peer comparisons, which can occasionally cause worry and self-doubt.

Students are forced to stay connected as institutions increasingly use digital platforms for instruction, homework, and administrative tasks.

This change can be even more challenging for many people, particularly those from rural areas. The majority of Gujarati institutions and schools use Gujarati as their medium of instruction, and official university communications are also mostly in Gujarati. But because the Maharaja Sayajirao University of Baroda is the only University of Gujarat which follows English as medium of instruction. Thus, students who are not fluent in the language may face more difficulties.

Many students rely significantly on digital devices for online materials, translation tools, and extra study help in order to close this language gap. Although this aids in meeting academic obligations, it also increases their reliance on digital platforms and screen time, which may have an effect on their general digital wellbeing.

It can occasionally feel too much to handle while preserving a positive online persona. For their wellbeing, finding the ideal balance between social expectations, scholastic duties, and digital participation is essential. Because of this, research on digital wellbeing in higher education is not only pertinent but also essential.

Researching in this group may help in designing interventions that promote healthier digital practices.

1.13 Justification of the Variables

1.13.1 Gender

When it comes to determining digital habits and wellbeing, gender is a significant factor. Students' overall digital well-being is impacted by the gender-based differences in how they access, use, and engage with technology. How often and how students use digital tools can vary depending on their access to technology, which may have an effect on their capacity to cope with digital stress. Digital habits are also influenced by students' familiarity and interest in technology; some may be more comfortable using digital gadgets, while others may find it difficult to adjust to new developments.

Additionally, the kind and intent of technology use can differ, which affects how effectively students manage to strike a balance between their well-being and digital involvement.

1.13.2 Socio-economic Status

Students' experiences with digital participation vary depending on their socioeconomic background. The ability of students to handle the growing digital demands of higher education is influenced by their socioeconomic level, which also dictates their access to digital devices, internet connectivity, and technological resources. Some students may find it more difficult to meet academic standards due to differences in learning possibilities brought about by the digital divide. Less exposure to technology may have an impact on the digital literacy and general well-being of students from lower socioeconomic backgrounds. Conversely, people with greater resources can get overwhelmed by information, which could result in digital weariness. Recognizing these differences aids in determining the difficulties that various students encounter in preserving their digital wellbeing.

1.13.3 Educational Status

Different amounts of academic pressure are experienced by undergraduate and graduate students, and this has a direct effect on their digital habits and general well-being. While undergraduates may use digital devices for both academic and social purposes, postgraduate students typically have higher research-focused workloads that require them to spend more time on them. Free time availability also affects digital involvement; students who are under more academic pressure could find it difficult to unplug, which could result in higher levels of stress. Furthermore, usage habits for digital devices change according to academic obligations, thus it is crucial to investigate the effects of different educational levels on digital well-being.

1.13.4 Academic Discipline

A student's digital involvement is greatly influenced by the nature of their academic discipline. Because their coursework frequently incorporates programming, simulations, and research-based software, students studying science and technology frequently have greater digital literacy requirements. Although they too depend on digital resources, students in the humanities and social sciences might use them more for reading, writing, and research. The amount of time spent on digital devices is influenced by the level of academic expectations in various fields, which may lead to an increase in stress and burnout. Students' social and academic experiences are also influenced by interactions between peers and teachers via digital media. Comprehending these distinctions facilitates the customization of digital well-being tactics to accommodate learners with varying educational backgrounds.

1.13.5 Well-being Consciousness

Effective management of digital habits is influenced by a student's level of wellbeing consciousness. More self-aware people are more likely to understand how excessive technology use affects their physical and mental well-being and make an attempt to keep a healthy balance. Resilience, emotional intelligence, and mindfulness are essential for managing digital stressors and enabling students to use digital platforms without feeling overburdened. Conversely, students who have a poorer awareness of their well-being may experience worry, digital fatigue, and an inability to control their digital usage. Promoting mindfulness and self-awareness among students can aid in the development of better digital habits, which will ultimately enhance their general wellbeing.

1.13.6 Time Spent on Digital Devices

One of the most important aspects of students' digital wellbeing is how much time they spend on digital gadgets. Extended screen time is frequently required for academic purposes, but excessive use may cause stress and digital fatigue. Social media use is also important; although it keeps students connected, too much use can lead to worry, social comparison, and decreased productivity. The ratio of academic to non-academic digital engagement may also be impacted by access to digital resources. Developing solutions that support a balanced and healthy digital lifestyle requires an understanding of how students divide their time between various digital pursuits.

1.13.7 Digital Identity Stress

In an academic setting where students are continuously communicating through digital channels, maintaining a digital identity may be particularly taxing. Students' digital well-being may be impacted by privacy issues, the influence of social media, and the need to keep up an online presence. Digital habits are largely shaped by the educational environment; when universities include technology into their curricula, digital involvement may rise, sometimes to an overwhelming degree. Students' attitudes toward digital environments are also influenced by cultural variables, which have an impact on their stress levels. In order to assist students in navigating online interactions while preserving their feeling of safety and wellbeing, it is imperative that digital identity stress be addressed.

1.13.8 Type of Usage of Digital Devices

Students' use of digital gadgets has the potential to improve or worsen their wellbeing. Digital technologies are necessary for learning, forming social bonds, and creating communities, but if not used responsibly, they can also lead to social isolation and digital addiction. Some students utilize technology for learning, communication, and civic involvement, while others may use it excessively for pleasure, which can have a detrimental effect on their mental health. Recognizing these usage trends reduces possible hazards while encouraging constructive digital behaviours. Students' overall digital well-being can be greatly enhanced by promoting thoughtful and purposeful digital participation.

This study attempts to comprehend the intricate connection between digital habits and wellbeing in higher education by looking at these aspects. By determining the elements that affect digital engagement, treatments that promote healthier digital behaviours can be created, guaranteeing that students can succeed in the digital academic environment without endangering their mental and emotional health.

1.14 Rationale of the Aspects Selected for the Study

1.14.1 Understanding the Level of Awareness About Digital Well-Being

Any endeavour to enhance well-being must start with awareness, and digital well-being is no different. Although conversations on digital well-being have become more popular in social and academic settings, it is still unknown how well students understand this topic. Many students might not completely understand the wider ramifications, even though they may be aware of some aspects, such as the need to limit screen time or the dangers of digital addiction. This covers topics including the psychological effects of continuous connectedness, digital tiredness, and the significance of digital boundaries in preserving a positive work-life balance.

Lack of knowledge regarding digital well-being may have a number of detrimental effects, such as elevated stress, anxiety, insomnia, and poorer academic achievement. Students may unintentionally form harmful digital habits that negatively impact their general wellbeing if they are unable to identify the symptoms of digital overload. This study attempts to determine the gaps in students' knowledge by evaluating their awareness levels, which will assist in identifying areas that require more attention in educational activities. Students might not be as conscious of how digital consumption affects their emotional and social well-being, for

example, even though they may be aware of the physical stress that comes with extended screen time. Reducing these disparities can result in more successful well-being initiatives, giving students the skills they need to use technology in a healthy and balanced way.

1.14.2 Understanding the Advantages of Digital Well-Being

Understanding the advantages of digital well-being is just as crucial as comprehending its drawbacks, which are the subject of most of the discussion. Students who successfully control their digital habits may increase their focus, productivity, and time management abilities, which may result in better academic performance. By lowering digital stress, avoiding burnout, and encouraging mindfulness, a balanced digital lifestyle also improves mental health. Furthermore, students can utilize technology as a tool for meaningful connections rather than as a cause of social pressure or isolation when they engage in attentive digital interactions.

Understanding the benefits of digital well-being is essential because it encourages kids to develop better digital habits. Students are more inclined to take proactive measures to maintain a balanced digital life if they see observable advantages, such as increased emotional resilience, better sleep, or increased focus. Designing digital well-being initiatives that match students' objectives and values will be made easier with an understanding of these alleged advantages. Institutions may structure well-being efforts to highlight the positive effects of digital well-being on learning and performance, for instance, if students closely link it to academic success. This study intends to inspire students to adopt proactive digital habits that improve their general quality of life by emphasizing the advantages of digital well-being.

1.14.3 Studying the Adversities of Digital Well-Being

Achieving digital well-being is not without difficulties, despite its advantages. There are several obstacles that students must overcome in order to maintain a healthy digital lifestyle. Academic pressure is one of the biggest barriers. Due to the growing dependence of coursework on digital platforms, students frequently find themselves spending excessive amounts of time in front of screens, which makes it challenging to establish boundaries. Furthermore, social media and entertainment platforms' addictive qualities produce diversions that may result in excessive digital use, which lowers productivity and raises stress levels.

Another factor contributing to issues with digital well-being is peer pressure. Anxiety and digital weariness can result from the pressure to be online at all times, reply to messages right

away, and interact on social media. Additionally, institutional support networks that foster digital well-being are not available to all students. Many students might not be aware of tools like digital detox programs, counselling services, or workshops on managing digital stress, and some universities might not have policies that promote good digital habits.

This study attempts to identify these issues in order to offer practical suggestions for both students and educational establishments. Universities may need to reevaluate their approach to digital involvement in coursework, possibly by adding more offline learning activities, if academic workload is the main obstacle. Promoting selfregulation skills and digital literacy could be the main focus of interventions if social media addiction is a serious problem. Developing successful techniques that assist students in overcoming the obstacles to attaining digital well-being requires an understanding of these barriers.

1.14.4 Exploring Actions to Enhance Digital Well-Being

Despite the difficulties, a lot of students have created their own unique digital wellbeing management techniques. To stay focused, some people employ productivity apps, establish screen time limits, or engage in deliberate digital detoxes. To balance their screen time, some people place a higher value on offline pursuits like physical activity, mindfulness, and in-person relationships. Furthermore, several colleges and organizations have begun incorporating digital well-being programs, providing tools like awareness campaigns, workshops on well-being, and counselling services.

Examining these strategies' efficacy and identifying best practices that may be broadly adopted. Universities may establish encouraging settings that promote healthy digital habits by knowing what students find most useful. Institutions may implement structured programs that encourage students to occasionally unplug from screens, for example, if digital detox practices prove to be really successful. Similarly, institutions can include instruction on digital well-being in their orientation programs or courses if students find self-regulation tools helpful.

Additionally, by offering actual data on what functions best in higher education contexts, the study may add to the broader discussion on digital well-being. In order to create standardized best practices that support students in maintaining their digital wellbeing in academic settings as well as in their future personal and professional life, these insights may be shared throughout institutions.

1.15 Rationale of the Study in The Context of the Department of Extension and Communication

The Department of Extension and Communication offers a perfect starting point for investigating digital well-being in higher education because of its focus on resolving developmental issues and encouraging community involvement. The department's mission is strongly aligned with the goals of this study, with a strong focus on health, education, and empowerment through outreach and research. Understanding digital well-being is crucial in the current digital era, as students depend more and more on technology for social, intellectual, and personal connections. The department offers a distinctive viewpoint on addressing the opportunities and difficulties presented by digital reliance because of its interdisciplinary approach, which integrates development, mass media, extension management, non-formal education, and entrepreneurship.

This study may contribute to the department's objectives in many ways. It begins by examining digital well-being as a crucial developmental issue and its influence on students' social interactions, mental health, and academic achievement. By comprehending these influences, the study may assist in developing strategies that encourage appropriate online conduct and tackle new issues in the welfare of students. The results of the study may also be used to improve educational outreach through the creation of workshops and targeted communication initiatives. The department's emphasis on employing mass media and informal education as instruments for social change is in line with these efforts, which are meant to increase awareness of digital balance and its advantages.

The study focuses on how digital habits affect stress levels, mental resilience, and general well-being. It may offer practical suggestions to encourage students to utilize technology in a healthier way. The department's dedication to the well-being of individuals and communities is further supported by the fact that promoting mindful digital habits may result in decreased digital fatigue, enhanced academic attention, and better mental health results. The findings from this study may encourage academics and students to work on other projects that examine the relationship between technology, education, and wellbeing as digital technology develops.

In the end, this research may reinforce the department's objective of employing communication and extension strategies to promote quality of life. The department can continue to play a crucial role in forming a more balanced and healthful attitude to digital interaction among communities and students by incorporating digital well-being.

1.16 Objectives of the Study

1. To study the **profile of the selected respondents** of The Maharaja Sayajirao University of Baroda.

Awareness Regarding Digital Well-Being

2. To study the awareness level of the selected respondents regarding digital well-being.

3. To study the awareness level of the selected respondents regarding digital well-being with reference to the following variables:

- age,
- gender,
- socio-economic status,
- educational status,
- academic discipline,
- well-being consciousness,
- time spent on digital devices,
- digital identity stress,
- type of usage of digital devices.

4. To study the significant differences in the awareness level of the selected respondents regarding digital well-being with reference to the selected variables.

Advantages of Digital Well-being

5. To study the advantages of digital well-being from the selected respondents.

6. To study the advantages of digital well-being from the selected respondents with reference to the above-mentioned variables.

7. To study the significant differences in the advantages of digital well-being from the selected respondents with reference to the selected variables.

Adversities Of Digital Distress

8. To study the adversities of digital distress from the selected respondents.

9. To study the adversities of digital distress from the selected respondents with reference to the above-mentioned variables.

10. To study the significant differences in the adversities of digital distress from the selected respondents with reference to the selected variables.

Actions for Digital Well-Being

11. To study the Actions by the selected respondents regarding digital wellbeing.

12. To study the Actions by the selected respondents regarding digital wellbeing with reference to the above-mentioned variables.

13. To study the significant differences in the Actions by the selected respondents regarding digital well-being with reference to the selected variables.

1.17 Null Hypotheses of the Study

1. There will be **no significant differences in the awareness level** of the youth regarding digital well-being with reference to their:

- age,
- gender,
- socio-economic status,
- educational status,
- academic discipline,
- well-being consciousness,
- time spent on digital devices,
- digital identity stress,
- type of usage of digital devices.

2. There will be **no significant differences in the advantages** of digital wellbeing with reference to the above-mentioned variables.

3. There will be **no significant differences in the adversities** of digital wellbeing with reference to the above-mentioned variables.

4. There will be **no significant differences in the actions to be adopted** for digital wellbeing with reference to the above-mentioned variables.

1.18 Assumptions of the study

1. Selected respondents will possess varying **awareness level** regarding digital well-being.
2. Selected respondents will perceive different **advantages** related to digital wellbeing.
3. Selected respondents experience various **adversities** related to digital distress.
4. Selected respondents have varying views on the **actions to enhance** digital **wellbeing.**
5. Selected respondents will vary according to the **selected variables**.

1.19 Delimitations of the Study

1. The study will be **confined to undergraduate and postgraduate students enrolled at The Maharaja Sayajirao University of Baroda.**

2. The research will **focus on assessing digital well-being**, specifically examining awareness, advantages, adversities, and Actions related to digital well-being among the selected respondents.

CHAPTER 2
REVIEW OF LITERATURE

CHAPTER 2

REVIEW OF LITERATURE

The present research was undertaken to conduct a study on "Digital Wellbeing in Higher Education: Students' Awareness, Advantages, Adversities and Actions".

While reviewing the literature, it became clear that most studies have focused on how digital well-being affects students, particularly in terms of their academic performance, digital literacy, screen time management, and mental health. However, very few studies have taken a holistic approach by examining how factors like age, gender, socioeconomic status, and academic discipline influence digital well-being.

Similarly, research discussing the advantages of digital well-being tends to highlight benefits such as improved productivity, reduced stress, and better mental health. But there is a noticeable gap when it comes to exploring these benefits in relation to students' personal backgrounds and digital habits. On the other hand, while the challenges of digital distress and overuse are well-documented, fewer studies have looked at how these adversities vary across different groups of students.

Additionally, while many studies touch upon the strategies adopted by students to regulate their digital habits—such as digital detox, self-regulation, and institutional interventions there is limited research on how effective these actions are for students from different demographics. Given these gaps, this chapter presents a carefully selected set of studies that align with the objectives of the present research, focusing on the most relevant findings in the field of digital well-being.

Thus, the studies which were found related to the present research were selected and only relevant findings of these studies were presented in this chapter.

They are classified under the following four aspects of the study:

2.1 Awareness Regarding Digital Wellbeing

2.1.1 Conceptual Reviews

Sidhu (2024), in an article entitled *"Role of Digitalization in Higher Education: Looking Through the Lens of Opportunities,"* said that digitalization has significantly transformed the higher education landscape, particularly in response to challenges posed by the COVID-19 pandemic. It expresses the role of Information and Communication Technology (ICT) in enhancing accessibility, efficiency, and quality in education. It discusses various digital initiatives launched by the Ministry of Human Resource Development (MHRD), Government of India, such as SWAYAM, SWAYAM Prabha, National Digital Library (NDL), and Virtual Labs, aimed at ensuring equitable education for all learners.

Further it explored the New Education Policy (NEP 2020), which integrates online distance learning (ODL) to increase the Gross Enrollment Ratio (GER) and strengthen digital inclusion in higher education. The government's role in promoting e-learning, faculty training, and internationalization of education through digital platforms is also emphasized. The study calls for universities to adopt digital resilience strategies, improve faculty readiness, and implement student-centered learning models to maximize the benefits of digital transformation.

Adomaitienė and Volungevičienė (2024) in an article entitled *"Digital Wellbeing: Students' Perspective"* said that the rapid integration of technology in higher education has reshaped learning environments, creating both opportunities and challenges for students' wellbeing. It highlighted that while digital tools enhance learning experiences, they also introduce risks such as digital fatigue, technostress, and excessive screen time. The authors emphasized the need

for students to be aware of their digital wellbeing, as maintaining a healthy balance between online engagement and offline activities is crucial for academic success and mental health.

Further it explored the role of higher education institutions in promoting digital wellbeing through supportive policies, student training, and ethical digital learning environments. The authors argued that digital wellbeing is not just about minimizing negative effects but also about leveraging technology for positive learning experiences. They emphasized the importance of self-regulation, digital literacy, and the design of technology-enhanced learning (TEL) environments that support student engagement without causing burnout. Ultimately, the research called for greater awareness among students and educators about the impact of digital tools on wellbeing and the need for strategies to foster a healthier digital learning culture.

Nageswaran P, Green KL, et al. (2023) in an article entitled *"Digital Wellbeing: Are Educational Institutions Paying Enough Attention?"* elaborates that despite the increasing integration of digital technology in education, little attention has been given to its impact on the wellbeing of students and educators. It highlighted that while online learning provides greater access to educational resources and flexible learning opportunities, it also contributes to digital fatigue, technostress, and social isolation.

The authors emphasized that younger students, in particular, are immersed in digital environments from an early age, which may affect their cognitive and emotional development. Overuse of digital devices has been linked to attention difficulties, addictive behaviours, and reduced social intelligence. The study also pointed out that medical students report lower engagement and higher anxiety in online learning compared to face-to-face interactions. The authors called for a more balanced approach, advocating for institutional policies that integrate digital wellbeing into educational strategies. They recommended reflective practices, collaborative learning environments, and awareness programs to help students and educators manage digital stress effectively.

Büchi (2021) in an article entitled *"Digital Well-being Theory and Research"* said that digital wellbeing is shaped by how individuals engage with digital technologies and the social environments in which they operate. The study developed a general framework integrating empirical research to understand the effects of digital media on well-being, emphasizing that digital practices can lead to both harms and benefits. The research highlighted that digital wellbeing is not solely about avoiding negative effects but also about maximizing the benefits of digital engagement for personal and social development.

The study further explored the balance between digital practices, the associated harms and benefits, and their impact on subjective well-being. Büchi emphasized that digital wellbeing should not be reduced to simple notions of screen time management or digital detox but should instead consider how digital experiences influence emotional, psychological, and social well-being. He also highlighted the need for more robust research methodologies to understand the nuances of digital wellbeing. The study called for better awareness and informed decision-making at individual, organizational, and policy levels to ensure that digital environments support overall well-being.

Rachamalla (2020), in *"Digital Wellbeing Framework – Keeping Children Digitally Connected & Safe,"* emphasized the need for digital well-being education due to increased screen time and cyber risks among students during COVID-19. The framework advocates digital etiquette monitoring, cyber safety policies, and training programs in educational institutions. It highlights four key aspects: Online Identity and Relationships, Online Reputation and Cyberbullying, Screen Time and Well-being, and Online Security and Privacy. These elements help students manage their digital presence, protect personal data, and balance technology use while fostering responsible online behaviour for a safer and healthier digital environment.

2.1.2 Empirical Reviews

Ambike A, Rao S, et al. (2023) conducted research entitled *"Knowledge, Attitude, and Practices Regarding Digital Well-Being Features and Their Association with Screen Time and Addiction in Maharashtra, India."* The research aimed to assess the awareness, attitudes, and practices related to digital well-being features and their correlation with screen time and smartphone addiction. The study followed a crosssectional survey design and included 335 participants selected through quota sampling. Data was collected using an online questionnaire consisting of multiple-choice and Likert-scale questions. Additionally, the Smartphone Addiction Scale (SAS-SV) was used to assess addiction levels.

Major Findings of the study revealed that:

- About 65.4% of participants used at least one digital well-being feature, with app locking (33%) and over-usage warnings (21%) being the most preferred tools.
- No significant difference was found in average screen time ($p = 0.078$) or addiction scores ($p = 0.112$) between digital well-being feature users and nonusers.

- Despite positive perceptions, the use of digital well-being features did not significantly reduce screen time or prevent smartphone addiction.
- Participants suggested stricter locking features, standardized government-backed digital well-being apps, and mental well-being tools to enhance digital hygiene practices.

This study highlighted the need for more effective digital well-being strategies, emphasizing that awareness alone is insufficient to change user behaviour.

Mayiwar, Asutay E, et al. (2024) conducted research entitled *"Determinants of Digital Well-being."* The research aimed to identify individual traits and behaviours that contribute to digital well-being, life satisfaction, and social anxiety in the context of digital engagement. The study used a cross-sectional survey design with a representative sample of 1,999 participants from Sweden, selected through random sampling. Data was collected using an online questionnaire, measuring digital self-control, subjective and objective digital literacy, and digital information ignorance.

Major Findings of the Study revealed that:

- Higher self-control significantly predicted greater digital well-being and life satisfaction while reducing social anxiety.
- Subjective digital literacy (perceived knowledge) strongly influenced digital well-being, whereas objective literacy (actual knowledge) had no significant impact.
- Avoiding digital information did not significantly affect digital well-being but was linked to increased social anxiety and life satisfaction.
- Women reported lower digital well-being than men.
- Better general health correlated with higher digital well-being, while increased digital media use was positively associated with digital well-being but negatively linked to life satisfaction.

The study concluded that self-control and digital literacy play a vital role in fostering digital well-being, highlighting the need for interventions that enhance self-regulation and critical digital engagement.

Nguyen MH, Büchi M, et al. (2022) conducted a research study entitled *"Everyday Disconnection Experiences: Exploring People's Understanding of Digital Well-Being and Management of Digital Media Use."*

The research aimed to investigate how individuals perceive digital wellbeing and the strategies they use to balance their digital media consumption. The study also examined differences in digital disconnection experiences across sociodemographic groups.

The study employed a survey-based quantitative research method with a nationally representative sample of 1,163 Swiss Internet users. The data was collected through an online survey in November 2020, and responses were analysed using thematic coding and principal components analysis (PCA).

Major Findings of the Study Revealed That:

- People define balanced digital media use as maintaining a subjectively appropriate level of engagement, ensuring purposeful use, and preserving offline social connections.
- Three key motivations for digital disconnection were identified:
    - Well-being and availability (e.g., reducing stress, improving focus). o Content and privacy concerns (e.g., avoiding negative content, limiting data exposure).
    - Social influences and overuse (e.g., peer pressure, fear of missing out).
- Two main strategies for managing digital wellbeing were:
    - Rule-based disconnection (e.g., setting technology-free moments, deleting apps). o Feature-based disconnection (e.g., muting notifications, using do-notdisturb mode).
- Older adults were more likely to engage in rule-based disconnection, while younger individuals preferred feature-based strategies.
- The study highlighted the role of sociodemographic factors in shaping digital disconnection habits and called for greater awareness and support systems to promote healthier digital engagement.

The authors emphasized the need for a broader understanding of digital wellbeing, moving beyond simplistic solutions like screen-time reduction to more personalized and context-sensitive digital balance strategies.

Radovanović D, Hogan B, et al. (2015) conducted a research study entitled *"Overcoming Digital Divides in Higher Education: Digital Literacy Beyond Facebook."* The research aimed to examine the digital divide in higher education, focusing on digital literacy and collaboration between students and educators. It investigated how institutional, social, and technological factors shape digital literacy and engagement in digital learning. The study explored whether the digital divide is primarily about access or if it extends to issues of skills, motivations, and institutional support.

The study was conducted in Serbia and employed a mixed-methods approach. It utilized semi-structured interviews with 30 participants (students and professors from different universities across Serbia) and analysed secondary statistical data from national and international reports on digital literacy.

Major Findings of the Study revealed that:

- The digital divide in higher education is not just about access but also about digital literacy skills.
- Students are generally more digitally literate than professors, leading to a gap in digital engagement and learning practices.
- Many professors resist adopting digital technologies, fearing a loss of authority and struggling with unfamiliarity.
- Collaboration between students and educators is limited due to differences in digital literacy and institutional barriers.
- Social media platforms like Facebook are widely used by students, but their academic use remains limited.
- The study emphasized that higher education institutions should promote digital literacy training for both students and educators to enhance learning experiences.

The study concluded that overcoming digital divides requires institutional support, better digital education policies, and strategies to integrate digital learning tools effectively in higher education.

2.2 Advantages of Digital Wellbeing

2.2.1 Conceptual Reviews

Bhattacharya et al. (2023), in an article entitled *"Digital Well-being Through the Use of Technology—A Perspective,"* said that digitalization has reshaped healthcare, public behaviour, and the environment in the 4th Industrial Revolution. It highlighted the way digital well-being is now a crucial aspect of overall health, aligning with WHO's definition of well-being. The authors discuss how constant online presence, fear of missing out (FOMO), and reliance on social media impact mental health, leading to conditions such as nomophobia (fear of being without a mobile phone).

The article emphasized the role of digital footprints in health research and the increasing reliance on digital tools for healthcare decision-making. The authors argue that wearable devices, AI-driven diagnostics, and virtual hospitals play a growing role in personal health monitoring. However, concerns over digital literacy, data privacy, and misinformation remain significant. It calls for integrating digital well-being into healthcare policies to ensure responsible use of technology, enhance digital literacy, and develop strategies for mitigating digital distress.

Dennis M.J. (2021) in an article entitled *"Digital Well-being under Pandemic Conditions: Catalysing a Theory of Online Flourishing"* said that digital well-being plays a crucial role in helping students adapt to an increasingly digital world. The article emphasized that online platforms, when designed thoughtfully, can support well-being by fostering meaningful connections, enhancing learning experiences, and improving access to resources. The article further highlighted how students can cultivate positive digital habits by balancing screen time with offline activities and using digital tools for personal growth.

It explored different strategies to promote digital well-being, including character-based approaches that help students develop self-regulation and digital literacy. It emphasized that ethical digital design, such as reducing distractions in online environments, can further enhance students' ability to focus and engage productively. Moreover, the article suggested that instead of relying solely on self-control, students should be encouraged to use technology in ways that align with their well-being, such as participating in educational activities and mindfulness practices. Overall, the research advocated for an integrated approach that

combines self-awareness, ethical digital environments, and policy interventions to ensure students experience the benefits of digital engagement while minimizing potential drawbacks.

2.2.2 Empirical Reviews

Pankow K, King N, et al. (2023) conducted research entitled *"Acceptability and Utility of Digital Well-being and Mental Health Support for University Students: A Pilot Study."* The research aimed to assess the acceptability and explore the utility of a novel digital platform, i-spero®, as a student-facing well-being and mental health support system. The study followed a pilot study design, and the sample consisted of 241 university students (120 in the well-being pathway and 121 in the care pathway), selected through random sampling. Data was collected using an online survey that measured weekly anxiety (GAD-7) and depression (PHQ-9) scores, along with an eight-week experience survey.

Major Findings of the Study revealed that:

- 68% of well-being users and 80% of care pathway users screened positive for anxiety or depression.
- 50% of students in the well-being pathway and 40% in the care pathway discontinued after the first week.
- Students reported improved emotional self-awareness and a better understanding of their progress.
- Symptoms of anxiety and depression showed a non-significant reduction after eight weeks.
- Over 75% of students supported integrating i-spero® into university wellness programs.
- Many students felt the platform lacked strong engagement incentives and needed better integration into mental health services.

The study concluded that digital mental health platforms are acceptable among students but require enhanced engagement strategies to maximize long-term usage.

Rivadeneira M, Salvador C, et al. (2023) conducted research entitled *"Digital Health Literacy and Subjective Wellbeing in the Context of COVID-19: A Cross-Sectional Study Among University Students in Ecuador."* The research aimed to analyse the association

between digital health literacy (DHL) and subjective well-being among university students during the COVID-19 pandemic. The study followed a crosssectional research design and included 917 university students from two Ecuadorian universities (one public and one private), selected using random sampling. Data was collected through an online survey using the Spanish-adapted Digital Health Literacy Instrument (COVID-DHLI-Spanish) and the World Health Organization Well-being Scale (WHO-5).

Major Findings of the Study Revealed That:

- For each one-point increase in digital health literacy, an average increase of 9.64 points was observed in the subjective well-being scale.
- Males and students with higher social status exhibited higher DHL and subjective well-being scores compared to females and lower-income students.
- Older students and those in engineering and technological sciences showed higher DHL levels than students in social sciences and health sciences.
- The study suggests strengthening digital literacy programs at universities to improve students' access to reliable health information and overall well-being.

This study highlights the importance of digital health literacy in enhancing students' psychological well-being and advocates for university and governmental policies that promote equitable access to digital health education.

2.3 Adversities of Digital Distress

2.3.1 Conceptual Reviews

Ahluwalia Y and Balhara Y.P.S. (2024) in an article entitled *"Ensuring Mental Wellbeing in the Digital World: Challenges and Approaches"* highlighted the dual impact of digitalization on mental health. They emphasized that while digital advancements have provided greater accessibility to mental health resources and interventions, excessive use of digital platforms has led to concerns such as social media fatigue, digital distraction, and technostress. The article also shed light on the psychological effects of digital perfectionism, where individuals feel pressured to maintain an idealized online identity, leading to anxiety and self-doubt.

The article further explored the way digital platforms contribute to both mental health support and challenges. Increased social media engagement fosters social comparison and fear of

missing out (FOMO), which exacerbates psychological distress. Furthermore, issues like digital hoarding, screen time addiction, and cultural globalization impact identity formation and well-being. Author advocates for policy interventions and awareness programs to promote responsible digital engagement.

Docherty N and Biega A.J. (2022) in an article entitled *"(Re)Politicizing Digital WellBeing: Beyond User Engagements"* highlighted the growing issue of digital distress among users, especially students. They argued that digital well-being is often framed as an individual responsibility, where users are expected to manage their screen time through self-control. However, the study pointed out that digital platforms are intentionally designed to keep users engaged for longer, leading to stress, fatigue, and reduced concentration. This constant engagement affects students' academic performance, sleep patterns, and mental health, making it harder for them to disconnect.

The article also discussed how social media, and online platforms contribute to digital distress by promoting unrealistic standards and fostering social comparison. Students often feel pressured to maintain a perfect online image, leading to anxiety and low self-esteem. Additionally, the overwhelming amount of information online can create stress and make it difficult to focus. The authors emphasized that these issues are not just personal challenges, but structural problems influenced by corporate interests and platform designs. They called for better digital policies, ethical platform design, and education on responsible technology use to help students manage the negative effects of digital distress.

2.3.2 Empirical Reviews

Zayed M.A. (2024) conducted research entitled *"Digital Resilience, Digital Stress, and Social Support as Predictors of Academic Well-Being among University Students."* The research aimed to explore the relationship between academic well-being, digital resilience, digital stress, and social support among university students while identifying differences based on gender, academic level, specialization, and achievement level. The study followed a comparative-descriptive approach, and the sample consisted of 600 undergraduate students from Kafrelsheikh University, Egypt, selected through random sampling. Data was collected using scales measuring digital resilience, digital stress, social support, and academic well-being.

Major Findings of the Study revealed that:

- Academic well-being was positively correlated with digital resilience (0.830) and social support (0.756).
- Academic well-being was negatively correlated with digital stress (-0.877).
- No significant differences were found in digital resilience, digital stress, or academic well-being between males and females.
- Fourth-year students exhibited higher digital resilience and lower digital stress than first-year students.
- High-achieving students reported greater digital resilience, social support, and academic well-being, while low-achieving students exhibited higher digital stress.
- Digital resilience, digital stress, and social support significantly predicted academic well-being.

The study highlighted the importance of institutional support and well-structured digital well-being programs in higher education to mitigate digital stress and promote academic success.

Qi C and Yang N (2024) conducted a research study entitled *"Digital Resilience and Technological Stress in Adolescents: A Mixed-Methods Study of Factors and Interventions."* The research aimed to examine the current state, differences, and influencing factors of digital resilience and technological stress among adolescents in different settings (family, school, and leisure) and recommend interventions to promote digital resilience while reducing technological stress.

The study employed a mixed-methods approach, combining quantitative surveys and qualitative interviews. The sample consisted of 2,968 adolescents aged 12 to 18 from various educational institutions in China.

Major Findings of the Study were:

- A significant inverse relationship was found between digital resilience and technological stress, suggesting that adolescents with higher resilience experienced lower levels of stress related to technology.
- Adolescents faced technological stress in various settings, including school (due to academic pressures and distractions), family (from social media comparisons and sleep disturbances), and leisure (related to cyberbullying and FOMO).

- Gender, age, school location (urban vs. rural), and family influences played crucial roles in shaping digital resilience and stress levels.
- Adolescents used different coping strategies depending on the setting, such as seeking help, taking digital detox breaks, or using school-taught digital literacy skills.
- Schools and families play critical roles in fostering digital resilience by providing education on responsible technology use and emotional coping strategies.

The study emphasizes the need for tailored interventions to support adolescents' digital resilience and mitigate the negative effects of technological stress.

Juárez M.A.P., Ortega G.D., et al. (2023) conducted a research study entitled *"Digital Distractions from the Point of View of Higher Education Students."* The research aimed to analyse the impact of digital distractions on students' academic performance and identify the most significant digital distractions affecting their learning. The study also examined students' awareness of these distractions and potential strategies to mitigate their effects.

The study was conducted at the Higher Technical School of Telecommunication Engineering, University of Valladolid, Spain, during the 2021–2022 academic year. It employed a survey-based approach, complemented by discussions and statistical analysis (bivariate correlations), with a sample of 105 students enrolled in engineering programs.

Major Findings of the Study revealed that:

Digital distractions significantly impact students' performance, particularly in laboratory sessions where students self-manage their time.

- The most common digital distractions included social media usage (43.88%), messaging applications (41.84%), and web browsing (36.73%) for off-task purposes.
- Sounds from notifications and digital devices (56.12%) were identified as major distractions in classrooms.
- A paradox exists where technology is essential for learning but also serves as a source of distraction.
- More than two-thirds (69.2%) of students acknowledged that they could use their time better during lab sessions if distractions were minimized.

- Digital distractions were found to be as influential as non-digital distractions, even though students were presented with three times as many non-digital distractors in the survey.
- The study emphasized the need for educators to develop strategies that help students manage their digital distractions effectively while maintaining engagement with learning activities.

The research recommended institutional policies and pedagogical approaches to minimize digital distractions and promote better self-regulation among students.

Büchi M, Festic N, et al. (2019) conducted a research study entitled *"Digital Overuse and Subjective Well-Being in a Digitized Society."* The research aimed to explore the extent of perceived digital overuse (PDO) among Internet users and its impact on subjective well-being (SWB). The study also examined how social digital pressure (SDP), and digital coping skills influence digital overuse and overall well-being.

The study used a survey-based quantitative research method and was conducted in Switzerland. The researchers analysed data from a nationally representative sample of 1,011 Internet users using structural equation modelling (SEM) to assess the relationships between digital overuse, well-being, and coping strategies.

Major Findings of the Study revealed that:

- 28% of Swiss Internet users reported experiencing digital overuse, which was strongly linked to lower well-being.
- Social digital pressure (expectations to be online and responsive) was a significant predictor of overuse, increasing stress levels and impairing wellbeing.
- Digital coping skills (e.g., managing notifications, selective engagement with online content) were associated with higher well-being, helping users mitigate the negative effects of digital overuse.
- The study emphasized that digital overuse is a widespread social issue, affecting not just those diagnosed with digital addiction but also the general population.
- Users who lacked coping strategies experienced greater stress and lower wellbeing, highlighting the need for digital literacy programs to improve self-regulation.

The study concluded that while digital technologies offer numerous benefits, excessive use leads to digital distress, reinforcing the need for policies and interventions that promote balanced digital engagement.

2.4 Actions for Digital Wellbeing

2.4.1 Conceptual Reviews

Abeele (2021), in an article entitled *"Digital Wellbeing as a Dynamic Construct,"* said that digital well-being is a balance between connectivity and dysconnectivity influenced by personal, contextual, and technological factors. The article proposes a theoretical model emphasizing that digital well-being is not simply the absence of digital harm but a state of optimal engagement with technology. The author highlights the mobile connectivity paradox, where constant connectivity increases autonomy but also creates challenges like distractions, emotional exhaustion, and sleep disturbances.

The article further explores digital well-being interventions, including digital detox programs, self-regulation apps, and mindful technology use, yet notes that their effectiveness remains inconclusive. While some interventions reduce screen time, others fail due to ingrained digital habits. The author calls for a dynamic systems approach that considers individual, device, and environmental factors in shaping digital well-being. The article suggests that achieving healthy digital habits requires a combination of self-regulation, institutional policies, and user-centered design.

Dennis (2021), in an article entitled *"Towards a Theory of Digital Well-Being: Reimagining Online Life After Lockdown,"* said that the COVID-19 pandemic intensified concerns about digital well-being, highlighting issues such as *doom scrolling*, *Zoom fatigue*, and *digital distraction*. The article critically evaluates current digital well-being approaches by tech companies, NGOs, and ethicists and argues that existing strategies, particularly those by major corporations, overemphasize self-regulation and personal responsibility, absolving companies of their role in digital harm.

Dennis critiques the "McDonald's Model" (McM) of digital well-being, which frames issues like screen addiction as an individual's failure to moderate their usage, similar to fast-food consumption. He suggests a more comprehensive theoretical framework, integrating empirical research with ethical and regulatory interventions. It called for better-designed digital environments that prioritize user well-being through valuesensitive design, institutional

policies, and systemic technological reforms rather than relying solely on self-discipline and digital detox solutions.

Diefenbach (2018) in an article entitled *"The Potential and Challenges of Digital Well-Being Interventions: Positive Technology Research and Design in Light of the BitterSweet Ambivalence of Change"* said that digital technology can play a significant role in supporting human well-being and personal growth. The author introduced the concept of positive technology, which frames technology as a digital coach that assists individuals in achieving behaviour change and enhancing wellbeing. It emphasized that designing such technology requires collaboration between psychology, humancomputer interaction, and design disciplines to create effective interventions.

The article highlighted the bitter-sweet ambivalence of change, explaining that while digital interventions can provide motivation and support, they also confront users with their shortcomings, which can lead to resistance or negative emotions. Effective digital wellbeing interventions should balance positive reinforcement with constructive challenges, helping individuals navigate self-improvement without overwhelming them.

The article proposed three strategies for designing positive technology interventions:

- Reframing negative experiences to make challenges feel like opportunities rather than obstacles.
- Providing early positive feedback to encourage engagement and sustain motivation.
- Creating "unintended success" scenarios, where users achieve improvements without feeling pressured to change.

Diefenbach emphasized that for technology to truly enhance digital wellbeing, it must be designed with a deep understanding of human psychology, ensuring that digital interventions empower users rather than control them.

2.4.2 Empirical Reviews

Lister K, Riva E, et al. (2023) conducted research entitled *"Positive Digital Practices: Supporting Positive Learner Identities and Student Mental Well-being in TechnologyEnhanced Higher Education."* The research aimed to identify barriers and enablers to student mental well-being in digital learning environments and develop resources to support students and

educators in fostering digital well-being. The study followed a participatory research approach, involving 584 students and 666 university staff members, recruited through stratified random sampling. Data was collected using quantitative surveys and qualitative participatory co-creation methodologies.

Major Findings of the Study revealed that:

- Students cited assessment stress, lack of digital literacy, and social isolation as major barriers to well-being in online learning.
- Structured curricula, supportive digital communities, and personalized learning approaches significantly improved student well-being.
- Resources designed to build emotional awareness and self-reflection positively impacted students' coping mechanisms.
- University staff emphasized the need for training in digital pedagogy and student mental health awareness.
- The study advocated for integrating digital well-being into university policies, ensuring inclusive and student-centered learning environments.

The study highlights the importance of co-creating digital well-being strategies with students and calls for universities to adopt holistic well-being frameworks to enhance student engagement and mental health.

Mansoori S.R., Thani A.D., et al. (2023) conducted a research study entitled *"Designing for Digital Wellbeing: From Theory to Practice – A Scoping Review."* The research aimed to examine the extent, range, and nature of digital wellbeing research in human-computer interaction (HCI) literature. It explored how digital wellbeing is integrated into the design of digital systems, highlighting key frameworks and strategies for enhancing user wellbeing in digital environments.

The study employed a scoping review methodology, analysing 87 research papers related to digital wellbeing and technology design. The research was conducted at Hamad Bin Khalifa University, Qatar.

Major Findings of the Study revealed that:

- Digital wellbeing lacks a universally agreed definition, making it difficult to standardize its integration into digital design.
- The study identified two primary approaches to digital wellbeing:
    - Technology designed to enhance wellbeing (e.g., mindful design features, screen time management tools).
    - Design considerations to minimize harm (e.g., reducing distractions and addictive design patterns).
- Ethical concerns in digital design, such as attention-hooking mechanisms and privacy risks, contribute to digital stress and must be addressed.
- The research emphasized the need for validated tools and frameworks to ensure digital wellbeing is systematically incorporated into design processes.
- Policymakers, designers, and educators should collaborate to create ethical and well-being-sensitive digital experiences.

The study called for a standardized framework to guide the integration of digital wellbeing in human-computer interaction, ensuring technology promotes a balanced and positive user experience.

Roffarello and Russis (2023) conducted a research study entitled *"Teaching and Learning Digital Wellbeing"*. The research aimed to explore how education can support digital wellbeing by shifting the focus from restrictive digital self-control tools (DSCTs) to a learning-based approach. Specifically, the study examined whether participating in a multidisciplinary course on digital wellbeing could positively impact students' understanding and habits regarding technology use.

The study employed a case study methodology at Politecnico di Torino, Italy, with a sample of 93 university students. Data collection methods included surveys and project-based assessments, where students designed and prototyped technological solutions to promote digital wellbeing.

Major Findings of the Study were:

- Educational approaches to digital wellbeing were found to be more effective in fostering long-term awareness and behavioural changes than traditional DSCTs.

- Students engaged critically with the concept of digital wellbeing and collaboratively designed innovative solutions, including redesigned versions of social media platforms that prioritize meaningful engagement and minimize distractions.
- The study highlighted that digital wellbeing education should integrate psychological and technical perspectives to help students understand the impact of technology on mental health and social interactions.
- Project-based learning encouraged students to envision technological solutions that respect users' time and attention, rather than relying on restrictive tools.
- The course was well-received, with a satisfaction rate of 93.24%, demonstrating the value of integrating digital wellbeing education into university curricula.

Naeem and Mushibwe (2025) conducted a research study entitled *"Navigating Digital Worlds: A Scoping Review of Skills and Strategies for Enhancing Digital Resilience Among Higher Education Students on Social Media Platforms"*. The research aimed to identify and evaluate strategies used by students to develop digital resilience in educational contexts while navigating social media platforms. It explored various skills and institutional strategies that support students in managing digital challenges effectively.

The study followed a scoping review methodology using the revised Arksey and O'Malley protocol. The researchers reviewed 16 studies to analyse different approaches to building digital resilience. The research was conducted with a focus on higher education students, particularly adult learners, in academic settings.

Major Findings of the Study were:

- Identified four key skills for digital resilience: personal (privacy, time management), cognitive (critical thinking, information processing), emotional (stress management, self-awareness), and social (communication, problemsolving).
- Proposed four strategic approaches: cognitive, metacognitive, behavioural, and technology-enhanced strategies, with seven sub-strategies such as information literacy, cyberbullying prevention, and digital citizenship.
- Highlighted the role of educational institutions in fostering digital resilience through curriculum integration, supportive policies, well-being programs, and collaboration with stakeholders.

- Emphasized the need for digital literacy programs and ethical digital engagement to help students navigate online challenges.
- Recommended that universities incorporate structured digital resilience education to ensure students can thrive in digital environments while safeguarding their well-being

Royo C, Sime A.J., et al. (2019) conducted a research study entitled *"Digital Wellbeing Education – A Compendium of Innovative Practices."* The research aimed to explore how educators can integrate digital wellbeing into higher education by addressing digital literacy, media awareness, and critical thinking. It sought to provide best practices for supporting students' digital wellbeing and managing digital challenges such as online distractions, cybersecurity risks, and the impact of social media.

The study was conducted as part of the Digital Wellbeing Educators (DWE) Project, funded by the ERASMUS+ programme of the European Union. The research followed a compendium-based methodology, gathering 3,467 examples of digital wellbeing practices from four partner countries (Spain, Denmark, Ireland, and the UK), as well as international case studies. Additionally, 10 expert interviews were conducted to understand effective strategies for digital wellbeing education.

Major Findings of the Study revealed that:

- Nine key threats to digital wellbeing were identified, including digital distractions, cyberbullying, social alienation, overconsumption of technology, and unethical attention-seeking through addictive platform designs.
- Four drivers for intervention were proposed:
    - Theoretical: Developing frameworks to define digital wellbeing. ○ Educational: Providing training for educators and students. ○ Personal: Encouraging responsible technology use.
    - Social: Promoting activism and policy changes for digital wellbeing.
- The study emphasized the urgent need to integrate digital wellbeing education into curricula to equip students with digital literacy, self-regulation skills, and critical thinking.

- Digital wellbeing should be treated as a lifelong learning process, requiring continuous research and institutional support.

The study called for evidence-based policies, structured digital wellbeing courses, and the development of open educational resources to help educators and students navigate digital challenges effectively.

2.5 Trend Analysis

- Reviewed literature was conceptual and empirical in nature.
- Both quantitative and qualitative research methods were used in the studies that have been reviewed.
- The studies reviewed for this research were conducted between 2018 and 2024.
- Most studies focused on digital well-being in higher education, examining students' awareness, challenges, and self-regulation strategies.
- Research primarily explored academic and psychological aspects, such as screen time, mental health, and productivity, with fewer studies considering socio-demographic factors.
- Studies were conducted across India (Delhi, Maharashtra, Tamil Nadu, West Bengal, Karnataka) and internationally in the U.S., U.K., Sweden, and Australia.
- Non-probability sampling, mainly purposive and convenience sampling, was commonly used.
- Data collection involved structured questionnaires, with some studies incorporating interviews and focus group discussions.
- Awareness of digital well-being varied, with some associating it solely with screen time reduction.
- While benefits like improved productivity and reduced stress were acknowledged, common challenges included social media addiction and digital distractions.
- Institutional efforts were inconsistent, with some universities promoting digital detox programs, while others lacked structured policies.
- Differences were observed across disciplines and genders, with Humanities students showing greater awareness, and female students practicing more selfregulation than their male counterparts.

2.6 Research Gaps

- While reviewing the literature, the researcher has not come across any study specifically examining digital well-being among university students in Gujarat.
- The variables such as age, gender, socio-economic background, academic discipline, and digital identity stress in relation to digital well-being have not been extensively studied in the reviewed research.
- Sampling methods other than purposive and convenience sampling were rarely used in the reviewed studies, limiting the generalizability of findings.
- In the majority of the studies, while students acknowledged the importance of digital well-being, many lacked a structured approach to maintaining digital balance, and institutional interventions were inconsistent.

2.7 Conclusion

After reviewing the studies, it can be concluded that digital well-being has reshaped the way students interact with technology, academics, and social life. The growing dependence on digital platforms for education and communication has created new engagement patterns, offering both advantages and challenges. While digital tools enhance accessibility, learning, and connectivity, they also contribute to issues such as excessive screen time, digital distractions, and mental health concerns. Maintaining digital well-being requires a balance between online and offline interactions, self-regulation, and institutional support. **Education: Students' Awareness, Advantages, Adversities, and Actions"**. The findings of this study may shed light on the level of awareness and perceptions of students regarding digital well-being and provide insights into how universities can foster healthier digital habits among students.

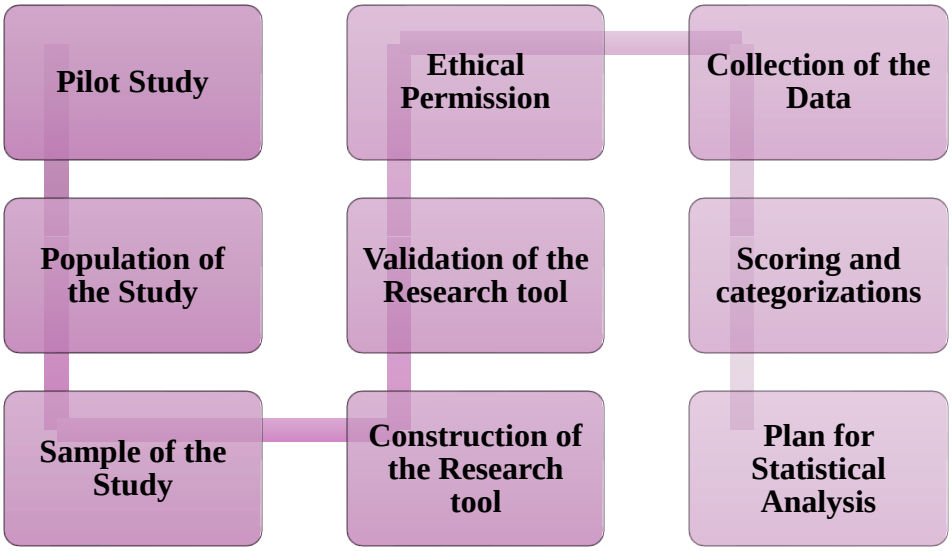
CHAPTER 3
METHODOLOGY

CHAPTER 3

METHODOLOGY

The present research aimed at studying "**Digital Wellbeing in Higher Education: Students' Awareness, Advantages, Adversities, and Actions".**

This chapter is divided into the following sections:



3.1 Pilot Study

To know the feasibility of the study, investigator conducted a pilot study to examine students' awareness, perceived benefits, challenges, and strategies related to digital well-being.

3.1.1 Objectives of the Pilot Study

- To assess the level of awareness of digital well-being among undergraduate and postgraduate students.
- To explore students' perceptions of the benefits and challenges associated with digital well-being.
- To examine the strategies students' use to maintain digital balance in their daily lives.
- To know students' opinions on how institutions can promote digital well-being.

3.1.2 Methodology of the Pilot Study

Thirty students from the Maharaja Sayajirao University of Baroda were chosen at random to make up the sample. There were 16 female and 14 male students from undergraduate and graduate programs in the sample. Twenty students from the humanities, six from science, and four from commerce made up the respondents' varied academic backgrounds.

A structured questionnaire with both quantitative and qualitative questions was used to gather the data. Sections on demographics, awareness levels, perceived advantages, difficulties, and methods for preserving digital well-being were all included in the questionnaire. This pilot study was carried out in July 2024.

3.1.3 Findings of the Pilot Study

Students' awareness of digital well-being varied; 36.66% said they were just vaguely aware of it, while 33.33% said they were rather aware. Just 20% of students said they were highly informed, 6.66% said they were completely unaware, and only 3.33% said they were extremely aware. According to the research, a significant number of students were unaware of the long-term effects of digital well-being on their academic performance and health, despite the fact that it was acknowledged as an essential topic. Additional information on these disparities in awareness was revealed by qualitative replies. While some students defined digital well-being as "being mindful of screen time to avoid negative consequences on mental health," others saw it as a "way to maintain a healthy relationship with technology." Some students, however, had a completely different interpretation of the idea, claiming that "digital well-being is an app that helps monitor digital usage" or "it is a feature developed by Google to track screen time." According to these comments, some students viewed digital well-being as a technological tool built into digital gadgets rather than as a lifestyle choice.

Students used digital gadgets for a variety of reasons, including social connections, academic work, and leisure. According to the findings, 56.66% of students depended on digital devices for academic work, while 60% of students utilized them mostly for amusement. Another important factor was social connectivity, as 43.33% of students reported using digital devices to communicate with friends and family. The most popular internet activity was browsing social media (66.66%), followed by watching movies or videos (63.33%) and listening to podcasts or music (66.66%). Among students, playing video games was more common than reading books or articles (36.66% against 26.66%). According to these findings, passive digital

content consumption was more common than active learning or constructive digital activity participation.

Numerous students acknowledged that they instinctively took up their phones even when they had no apparent need to do so, showing a strong regular pattern of digital device usage in the qualitative replies. "I don't even realize when I pick up my phone," a student said. Every time I have a moment to spare, my hands seem to move on their own. Someone else said, "If I hear a notification sound, I feel compelled to check my phone, even if I know it's not important." "I plan to use my phone for five minutes, but suddenly an hour has passed," said a couple students who were frustrated with their own screen-time habits. According to their comments, the main obstacles to reaching digital balance were regular device checking and digital dependency.

According to the study, 70% of respondents said that their largest difficulty was excessive screen time, indicating that many students had trouble managing their digital well-being. The second most often cited issue was social media addiction (53.33%), which was followed by trouble unplugging from technology (13.33%), FOMO (13.33%), and cyberbullying or online harassment (23.33%). Some students said, "Even when I try to take a break from my phone, I feel like I might miss something important, so I go back to checking it." Many students felt caught in a cycle of excessive screen usage. Another student said, "I can't control my tendency of scrolling via social media. I sometimes check my phone out of boredom, and I don't even realize how much time I've spent."

Several students talked about their experiences with FOMO, stating that they felt under pressure to maintain their social media presence. A participant said, "If my friends are posting updates, I feel like I should check them, otherwise I'll be left out of conversations." "I feel anxious when I don't reply to messages immediately, even when I don't want to be online," another student acknowledged. The social pressures and worries that come with digital communication were reflected in these replies, which made it challenging for students to take deliberate breaks.

Students also expressed concern about cyberbullying, especially those who had bad experiences interacting online. One student expressed that, "I avoid posting on social media because sometimes people leave mean comments, and I don't want to deal with that." Someone else said, "I've seen friends being bullied online, and it makes me more cautious about what I

post." According to these results, students' interactions on social media were not always favourable, and unpleasant encounters may exacerbate stress and anxiety.

Students acknowledged the advantages of upholding positive digital health practices in spite of these obstacles. The majority (70%) thought that improved digital balance helped them be more productive by enabling them to concentrate more on their schoolwork and cut down on procrastinating. Furthermore, 43.33% of students stated that their ability to spend more time with friends and family as a result of their digital well-being enhanced their interpersonal ties. Improvements in mental health were also noted; according to 40% of students, engaging in digital well-being practices decreased stress and anxiety.

Positive experiences were reported by several students who had made a conscious effort to limit their screen use. One respondent expressed that "Since I started turning off my notifications, I feel much more in control of my time," said one respondent. Someone another stated, "Taking breaks from social media has helped me feel less anxious and more present in my daily life." Some students, however, still struggled to achieve long-term improvements in spite of these advantages; one said, "I try to take breaks, but I always go back to my old habits because my phone is such a big part of my life."

Students' opinions on how educational institutions can support digital well-being were also investigated in the study. According to 53.33% of respondents, colleges should help students manage their digital habits by putting in place established policies, workshops, and awareness campaigns. One student said, "Professors should set guidelines to reduce device usage during lectures so that students don't get distracted." Other students suggested limiting screen time in the classroom. One student shared, "There should be more interactive events where students can disconnect from their phones and engage with each other in person." Other suggestions included encouraging offline connection through social events hosted by the university. The necessity for institutions to play a more active role in assisting students in achieving digital balance was underlined by these replies.

Overall, the pilot study's results brought to light the opportunities and difficulties associated with digital well-being. Despite their awareness of the value of digital balance, many students found it difficult to control their behaviour because of digital distractions, social pressures, and regular device use. The findings demonstrated that students required institutional support and practical techniques in order to successfully adopt beneficial digital habits; awareness alone was insufficient. The study offered a solid basis for improving the finished research tool,

guaranteeing that it encompassed the various facets of college students' digital well-being. Universities could play a significant role in creating a better digital environment and enhancing students' long-term wellbeing by tackling the issues that have been identified and incorporating student recommendations into institutional frameworks.

3.1.4 Conclusion of the Pilot Study

The pilot study's results shed important light on students' knowledge of, difficulties with, and approaches to digital well-being. Although most students were aware of digital well-being, the study found that they had little knowledge of its wider ramifications. Instead of making an effort to keep a positive relationship with technology, many students equated digital well-being with technological tools like screen time tracking features. This brought to light a knowledge gap that required educational initiatives and awareness campaigns. The survey also found that social connectivity, academic demands, and enjoyment were the main factors influencing students' digital behaviours, which frequently resulted in excessive screen time and habitual device use.

The prevalence of excessive screen time and social media addiction was one of the most highlighted findings; 70% of respondents said that their main difficulty was prolonged screen exposure. Numerous students stated that they picked up their phones out of habit or because they were constantly receiving notifications, which resulted in unintentionally longer use. With 66.66% of students consistently using social media, social media was a major factor in their digital engagement. Students found it challenging to limit their screen time due to the seductive nature of social media and the fear of missing out (FOMO). Despite being aware of the detrimental impacts, some students admitted that they frequently lost track of time while browsing through social media feeds and that they had trouble unplugging. Others talked about the pressure to keep up with their friends' activities, saying that they felt cut off from their peer groups after going a few hours without checking social media. This result implied that social pressures and expectations had an impact on digital well-being in addition to personal self-regulation.

Additionally, the study discovered that students' mental health was impacted by internet participation in both positive and bad ways. Others battled stress, diversions, and the obsessive need to constantly check their gadgets, while some students felt that practicing digital well-being made them feel more focused, less nervous, and more productive. Some students claimed that feeling constantly connected caused them to feel anxious because they felt pressured to

reply to texts right away. Others said they were reluctant to interact in digital areas because they were worried about cyberbullying and unpleasant online encounters. Some students claimed that unfavourable comments on social media posts impacted their confidence and self-esteem, and 23.33% of respondents said they had experienced cyberbullying or online harassment in some capacity. These results underlined that although digital platforms offered chances for enjoyment and social connection, they also presented serious threats to mental health if not used carefully.

The pilot study also made clear how important it is for educational institutions to support students' digital well-being. A sizable majority of students (53.33%) stated that in order to teach students about digital balance, colleges should set up awareness campaigns, workshops, and organized interventions. Many students recommended that instead of depending solely on internet contact for academic objectives, educators should promote more in-person conversations. Others said that in order to reduce digital distractions in the classroom, institutions should establish screen time regulations. To encourage students to adopt healthy digital habits, several suggested implementing mindfulness exercises and digital detox campaigns. According to these answers, students understood the value of institutional support in promoting healthy digital habits and believed it was the duty of academic institutions to provide a culture that promoted responsible technology use.

Overall, the pilot study's results demonstrated the opportunities and difficulties related to university students' digital well-being. Although students recognized the value of striking a balance between their online and offline lives, many found it difficult to control their behaviour because of digital distractions, social pressures, and habitual behaviour. The study underlined that in order to execute long-term behavioural changes, students required institutional support and practical techniques, as awareness alone was insufficient. The pilot study's findings served as a solid basis for improving the final research tool and making sure it included all of the crucial elements of college students' digital well-being. A healthier digital environment may be promoted in the future by incorporating student recommendations into academic policies, institutional frameworks, and student support services. Universities could assist students in creating mindful digital habits, raising their academic achievement, and improving their general well-being by putting in place organized interventions, awareness campaigns, and educational projects. Therefore, a thorough investigation was prepared while taking into account the findings of the pilot study.

3.2 Population of the Study

The population of the present study comprised of undergraduate and postgraduate students enrolled at The Maharaja Sayajirao University of Baroda.

3.3 Sample of the Study

The sample of the present study comprised a total of 200 students from The Maharaja Sayajirao University of Baroda, with an equal representation of 100 male and 100 female students.

3.3.1 Sampling Unit

The sampling unit refers to the educational institution from where the samples are drawn. In the present research, undergraduate and postgraduate students from The Maharaja Sayajirao University of Baroda were selected across different faculties.

3.3.2 Sampling Size

The study comprised a total of 200 students, categorized as follows:

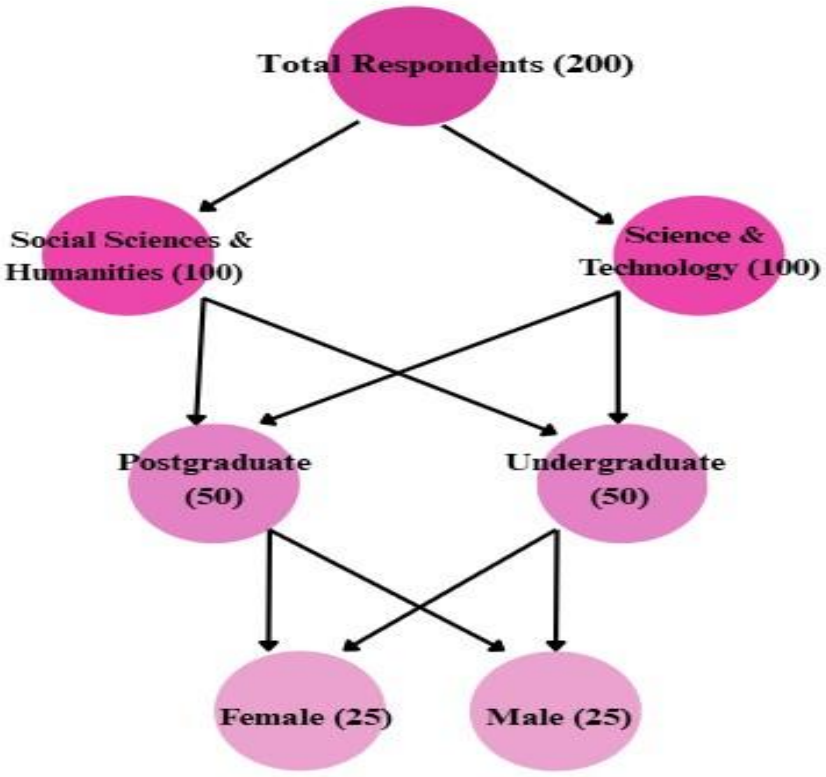


Figure 2 Sampling Size

3.3.3 Selection of the Sample

The **probability sampling technique, namely the stratified random sampling method,** was used to collect data from students across different faculties, academic levels, and gender groups to ensure balanced representation.

3.4 Construction of the Research Tool

A structured questionnaire, including a **Knowledge Test, Perception Scale, and Checklists,** was developed for data collection. The tool was designed after reviewing related literature on digital wellbeing from books, research articles, and online sources. Since the present study is cross-sectional, a survey method was adopted to assess **Awareness, Advantages, Adversities, and Actions** regarding digital wellbeing among students.

3.4.1. Description of the Research Tool

A questionnaire consisting of five sections was prepared to study the **Awareness, Advantages, Adversities and Actions regarding Digital Wellbeing among students at The Maharaja Sayajirao University of Baroda**. The details of the sections and the response system used in the research tool are mentioned below:

Table 2 Description of the Research Tool

Section	Content	Total no. of items	Tools	Response System
1.	**Profile of the Respondents** (Age, Gender, Educational Qualification, Academic discipline, Annual Family Income)	6	Checklist & Openended	Selecting an option from a given list that best applies to the respondent and writing the correct answer where required
	Part A: Well-Being Consciousness	10	Interval Scale	3-point rating scale

	Part B: Time spent on digital devices	1	Checklist	Selecting an option from a given list that best applies to the respondents
	Part C: Digital Identity Stress	10	Interval Scale	3-point rating scale
	Part D: Type of usage of digital devices	12	Interval Scale	3-point rating scale
2.	**Awareness of Digital Well-Being**	15	Interval Scale	3-point rating scale
3.	**Advantages of Digital Well-Being**	14	Interval Scale	3-point rating scale
4.	**Adversities of Digital Distress**	15	Interval Scale	3-point rating scale
5.	**Actions to Enhance Digital Wellbeing**	24	Interval Scale	3-point rating scale

Section-1: Profile of the Respondents

This section consists of statements and options related to the profile of respondents, which included age, gender, educational qualifications, academic discipline, and socio-economic status. Other background information, such as primary use of digital devices, was also collected. These were also the variables for the present study.

Section-1: Part-A: Well-Being Consciousness

This section consists of statements related to students' awareness of their physical and mental well-being. The statements included aspects such as maintaining a balance between academic and personal life, stress management techniques, and sleep habits.
The responses were recorded using a three-point rating scale (Always, Sometimes, Never).

Section-1: Part-B: Time Spent on Digital Devices

This part of the questionnaire has questions regarding the average daily screen time of students. Responses were recorded in predefined time ranges (e.g., Less than 2 hours, 2-4 hours, 4-6 hours, etc.).

Section-1: Part-C: Digital Identity Stress

This section assessed students' stress levels associated with maintaining a digital identity on various platforms. Statements measured concerns about privacy, social media engagement, cyberbullying, and the impact of digital identity on mental wellbeing. A three-point rating scale (Great Extent, Some Extent, Less Extent) is used.

Section-1: Part-D: Type of Usage of Digital Devices

This section consists of an equal number of statements related to academic and nonacademic digital usage. It evaluated students' engagement with digital devices in both educational and recreational contexts, assessing their balance between productive and leisure activities. The response system allowed students to indicate usage extent (Great Extent, Some Extent, Less Extent).

Section-2: Awareness of Digital Well-Being

This section consists of statements designed to assess students' knowledge and awareness levels regarding digital wellbeing. The section included statements to assess impact of digital well-being, strategies for maintaining digital well-being, risks associated with digital device usage and digital detox practices. A three-point rating scale (Great Extent, Some Extent, Less Extent) was used to measure students' awareness levels.

Section-3: Advantages of Digital Wellbeing

This section examined the positive aspects of maintaining digital wellbeing. The section included statements to assess students' understanding on the advantages of Digital Wellbeing. A three-point rating scale (Great Extent, Some Extent, Less Extent) measured the degree of advantage according to the selected students.

Section-4: Adversities of Digital Distress

This section consists of items on challenges related to digital wellbeing. The statements of this section were divided into four parts, namely Self, Social, Academic, and Technological Factors. It had a three-point rating scale to measure the extent of adversity according to the selected students.

Section-5: Actions to Enhance Digital Wellbeing

This section included possible strategies and interventions to improve digital wellbeing, such as setting boundaries on digital device usage, engaging in digital detox practices, using institutional resources for digital balance, participating in digital wellbeing workshops and training sessions and seeking professional counselling for digital stress management. It had a three-point rating scale.

3.5 Validation of the Research Tool

The tool was given to experts, four were teaching faculties from the Department of Extension and Communication, Faculty of Family and Community Sciences, for judging the content validity, relevance, logical sequence, language used, and appropriateness of the response system. Minor changes were made in the tool as per the suggestions and comments received from the expert. A pilot study was conducted with 30 students to refine the tool based on their feedback.

3.6 Ethical Approval of the Study by the IECHR Committee

The study was presented to the IECHR Committee for ethical approval on October 23rd, 2024. The ethical committee approved it with an ethical approval number by IECHR/FFCSc/M. Sc./10/2024/12. Mainly to ensure the protection of research respondents and maintain the integrity of the research process.

3.7 Collection of the Data

The data were collected from respondents by the investigator in December 2024. The survey forms were physically distributed to the respondents according to their selected academic disciplines. The completely paper-based survey forms were collected back directly from the participants, ensuring higher engagement and accurate data collection.

3.7.1 Difficulties Faced while Collecting Data

The researcher faced the following difficulties during data collection:

- Locating respondents who met the eligibility criteria, such as individuals fitting the required academic disciplines and educational qualification, proved to be challenging.
- Many respondents were reluctant to participate due to the time required for completing the paper-based survey forms.
- Repeated follow-ups were necessary to ensure that participants completed and returned the forms on time.
- A few participants opted out of the study midway, citing that the detailed nature of the questionnaire is not acceptable to them.

3.7.2 Tabulation of Data

• Data were coded as per the decided scores of the responses.

• Excel sheets were prepared for the same purpose by the researcher.

3.8 Scoring and Categorization of the Data

3.8.1 Scoring and Categorization of Independent Variables

Different types of scoring procedures were used for giving weightage to various items included under different parts of the tools.

Table 3 Scoring and Categorization of Independent Variables

Variables	Basis	Category
Age	21 and below 21 above	Emerging Adults Mature Learners
Gender		Male Female

Socioeconomic Status	5000-80000 810001200000	Low High
Educational Status		Under Graduation Post Graduation
Academic Discipline	Faculty-wise	Science and Technology Social Sciences and Humanities
Time Spent on Digital Devices	0-6 hrs 6+ hrs	Less than 6 hrs More than 6 hrs

Variables	**No. of Statements**	**Nature of Statements**	**Possible Scores**		**Response System**	**Category**
			Min	**Max**		
Wellbeing Consciousness	10	Positive	10	30	Always Sometimes Never	Less Wellbeing Conscious More Wellbeing Consciousness
Digital Identity Stress	10	Negative	10	30	Great Extent Some Extent Less Extent	Digital Identity Erosion Digital Identity Overload

Type of Usage	12	Academic and Non-academic	16	48	Great Extent Some Extent Less Extent	Academic Purpose Non-academic Purpose

3.8.2 Scoring and Categorization of Dependent Variables

Table 4 Scoring and Categorization of Dependent Variables

Variables	**No. of Statements**	**Nature of Statements**	**Possible Scores**		**Response System**	**Category**
			Min	**Max**		
Awareness of Digital Wellbeing	15	Positive	15	45	Great Extent Some Extent Less Extent	Low awareness High awareness
Advantages of Digital Wellbeing	14	Positive	14	42	Great Extent Some Extent Less Extent	Enhanced advantages of digital Wellbeing Limited advantages of digital Wellbeing

Adversities in Digital Distress	15	Negative	15	45	Great Extent Some Extent Less Extent	Severe Digital Distress Mild Digital Distress
Actions for Digital Wellbeing	24	Positive	24	72	Great Extent Some Extent Less Extent	Less Effective Actions More Effective actions

Table 5 Categorization of the Scores for Awareness level of Digital Wellbeing

Categories	Basis	Range
Low awareness	Below Mean	20-34
High awareness	Mean and above mean	35-45

Table 6 Categorization of the Scores for Advantages of Digital Wellbeing

Categories	Basis	Range
Limited Advantages of Digital Wellbeing	Below Mean	14-32
Enhanced Advantages of Digital Wellbeing	Mean and above mean	33-42

Table 7 Categorization of the Scores for Adversities of Digital Distress

Categories	Basis	Range
Mild Digital Distress	Below Mean	17-33
Severe Digital Distress	Mean and above mean	34-45

Table 8 Categorization of the Scores for Actions for Digital Wellbeing

Categories	Basis	Range
Less Effective Actions	Below Mean	37-58
More Effective Actions	Mean and above mean	59-72

3.9 Plan for Statistical Analysis of the Data

Table 9 Different Statistical Measure used for the Analysis of the Data

Purpose	Statistical Measures
Background information of the selected students at The Maharaja Sayajirao University of Baroda.	Percentage
Awareness level of Digital Wellbeing	
Awareness level of the Selected Students regarding Digital Wellbeing	Percentage
Variable-wise Awareness of the Selected Students regarding Digital Wellbeing	Percentage
Differences in the Awareness of the Selected Students regarding Digital Wellbeing with reference to the Selected Variables	Percentage & Independent T-test
Advantages of Digital Wellbeing	
Advantages of Digital Well-being according to the Selected Students	Percentage
Variable-wise Advantages of Digital Wellbeing according to the Selected Students	Percentage

Differences in the Advantages of Digital Wellbeing according to the Selected Students with reference to the Selected Variables	Percentage & Independent T-test
Adversities of Digital Distress	
Adversities of Digital Distress according to the selected Students	Percentage
Variable-wise Adversities of Digital Distress according to the selected Students	Percentage
Differences in the Adversities of Digital Distress according to the selected Students with reference to the Selected Variables	Percentage & Independent T-test
Action for Digital Wellbeing	
Actions for Digital Wellbeing according to the Selected Students	Percentage
Variable-wise Actions for Digital Wellbeing according to the Selected Students	Percentage
Differences in the Actions for Digital Wellbeing according to the Selected Students with reference to the Selected Variables	Percentage & Independent T-test

CHAPTER 4
FINDINGS AND DISCUSSION

CHAPTER 4

FINDINGS AND DISCUSSION

The present research entitled, **"Digital Wellbeing in Higher Education: Students' Awareness, Advantages, Adversities and Actions"**. The findings of the study are presented as follows:

4.1 Section – 1 Profile of the Students

4.2 Section – 2 Awareness Regarding Digital Wellbeing

4.2.1 Awareness level of the Selected Students regarding Digital Wellbeing
4.2.2 Variable-wise Awareness of the Selected Students regarding Digital Wellbeing
4.2.3 Differences in the Awareness of the Selected Students regarding Digital Wellbeing with reference to the Selected Variables

4.3 Section – 3 Advantages of Digital Wellbeing

4.3.1 Advantages of Digital Well-being according to the Selected Students
4.3.2 Variable-wise Advantages of Digital Well-being according to the Selected Students
4.3.3 Differences in the Advantages of Digital Well-being according to the Selected Students with reference to the Selected Variables

4.4 Section – 4 Adversities of Digital Distress

4.4.1 Adversities of Digital Distress according to the selected Students
4.4.2 Variable-wise Adversities of Digital Distress according to the selected Students
4.4.3 Differences in the Adversities of Digital Distress according to the selected Students with reference to the Selected Variables

4.5 Section – 5 Actions for Digital Wellbeing

4.5.1 Actions according to the selected Students for digital wellbeing
4.5.2 Variable-wise Actions for Digital Wellbeing according to the Selected Students
4.5.3 Differences in the Actions for Digital Wellbeing according to the Selected Students with reference to the Selected Variables

4.1 Section – 1 Profile of the Respondents

Table 10 Percentage Distribution of the Selected Students of The Maharaja Sayajirao University according to the Selected Variables

n=200

Sr.	Variables	Category	Percentage (%)
1.	Age	Emerging Adults	49.5
		Mature Learners	50.5
2.	Gender	Male	50
		Female	50
3.	Socio-economic Status	Low Socio-economic Group	**66**
		High Socio- economic Group	33
4.	Educational Qualification	Under graduation	50
		Postgraduation	50
5.	Academic Discipline	Science and Technology	50
		Humanities and Social Sciences	50
6.	Wellbeing Consciousness	Less Wellbeing Consciousness	35.5
		More Wellbeing Consciousness	**64.5**
7.	Time Spent on Digital Devices	Less than 6 hours	**62**
		More than 6 hours	38
8.	Digital Identity Stress	Digital Identity Erosion	49
		Digital Identity Overload	51
9.	Type of Usage	Non-academic Purpose	50
		Academic Purpose	50

Table 10 reveals the percentage distribution of the selected students at The Maharaja Sayajirao University, according to selected Variables. It represents that 49.5% of the respondents were emerging adults, whereas 50.5% were mature learners.

It also shows that 66% of the students belonged to the low socio-economic group, whereas 33% belonged to a high socio-economic group.

A significant variation was observed in well-being consciousness, where 64.5% of students exhibited more well-being consciousness, whereas 35.5% showed less wellbeing consciousness.

Further, it reveals that 62% of the students spent less than 6 hours per day on digital devices, whereas 38% spent more than 6 hours daily.

Regarding digital identity stress, the findings indicate a nearly equal distribution, with 49% experiencing digital identity erosion and 51% experiencing digital identity overload.

The type of digital usage among students was evenly split, with 50% engaging in non-academic digital usage and 50% in academic digital usage.

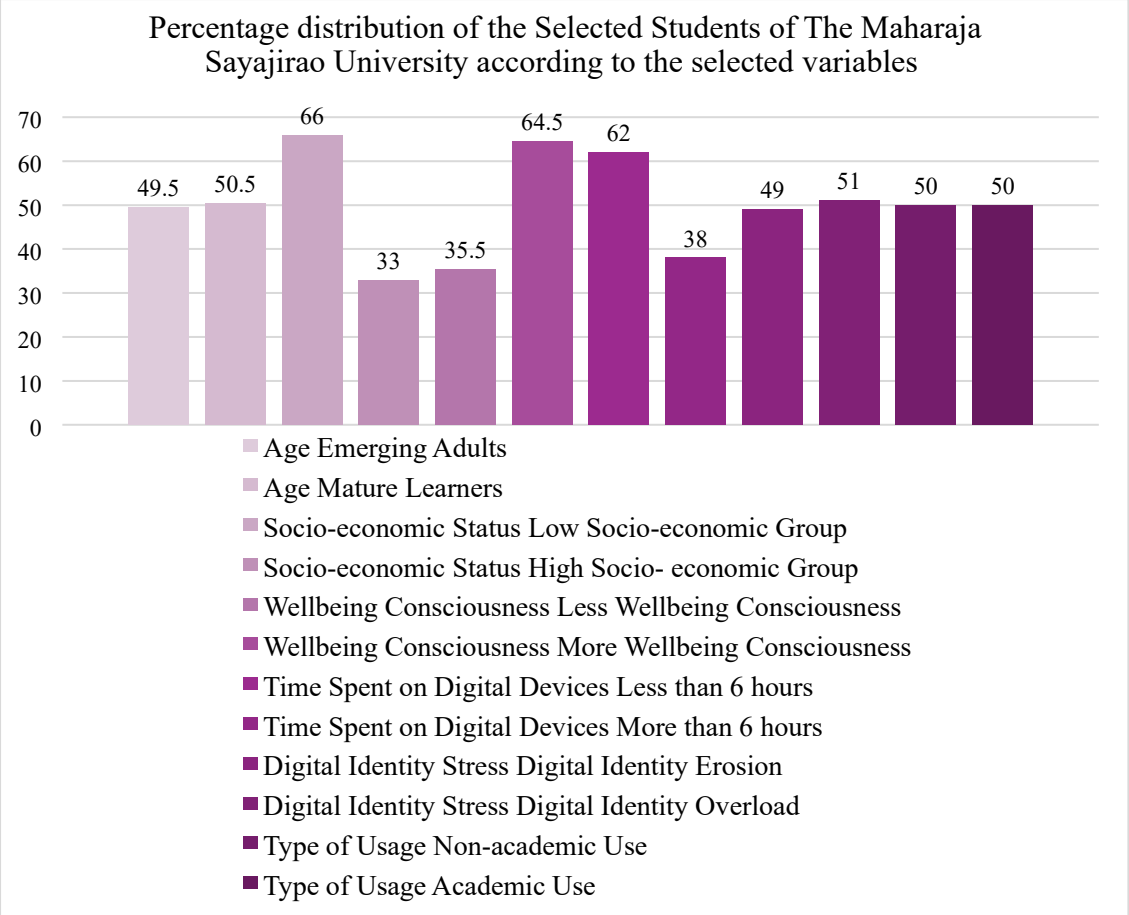


Figure 3 Percentage distribution of the Selected Students of The Maharaja Sayajirao University according to the selected variables (n=200)

4.2 Section – 2 Awareness Regarding Digital Wellbeing

4.2.1 Awareness level of the Selected Students regarding Digital Well-being

Table 11 Percentage Distribution of Selected Students according to the Awareness regarding Digital Wellbeing

n=200

S.no.	Awareness regarding Digital Wellbeing	Percentage (%)
1.	Low Awareness	43
2.	High Awareness	57

Table 11 reveals that slightly more than half, i.e., 57% of students, had a high awareness level, whereas slightly less than half, i.e., 43%, had low awareness levels regarding digital well-being. The findings indicate that while a majority of students were aware of digital well-being, a significant portion still lacked adequate knowledge 21on the subject.

The probable reason for such a distribution among respondents may be due to varying levels of exposure to digital literacy programs, technological advancements, and institutional awareness initiatives. Students in the highly aware category may have access to structured digital well-being programs, university-led awareness campaigns, or self-initiated learning through online resources. Additionally, increasing concerns about digital addiction, screen time management, and mental health issues linked to digital usage may have encouraged many students to educate themselves on digital well-being.

On the other hand, students with lower awareness levels (43%) may not have had sufficient exposure to digital well-being concepts. A lack of education on responsible digital usage, inadequate discussions in academic settings, and limited institutional initiatives could contribute to their lower awareness. Many students may prioritize the utility of digital tools for academic and social interactions without actively considering their impact on mental, emotional, and physical well-being.

This finding is supported by the research conducted by Ambike A et al. (2023), titled *"Knowledge, Attitude, and Practices Regarding Digital Well-Being Features and Their Association with Screen Time and Addiction in Maharashtra, India."* The study revealed that more than 60% of participants were aware of digital well-being features and had positive

attitudes towards them. However, the study also found that the use of these features was not associated with reduced screen time or lower screen addiction scores, indicating a gap between awareness and effective practice. This finding suggests that while awareness of digital well-being is increasing, it does not always translate into healthier digital habits, emphasizing the need for practical interventions.

Additionally, a study conducted by Qureshi A.A. (2024), titled *"Digital Well-Being and Student Performance: The Effect of Screen Time, Social Media Usage on Students' Performance Mediated by Sleep Quality,"* revealed a significant association between digital well-being and academic achievement. The study found that students with better digital habits tend to perform better academically. This finding means that digital wellbeing awareness not only impacts mental health but also plays a crucial role in students' academic success, reinforcing the importance of promoting healthy digital behaviours.

These studies' convergence with the current findings emphasizes the necessity of bridging the knowledge gap between awareness and practice, guaranteeing that students not only comprehend digital well-being but also adopt healthier digital habits for enhanced academic performance and general well-being.

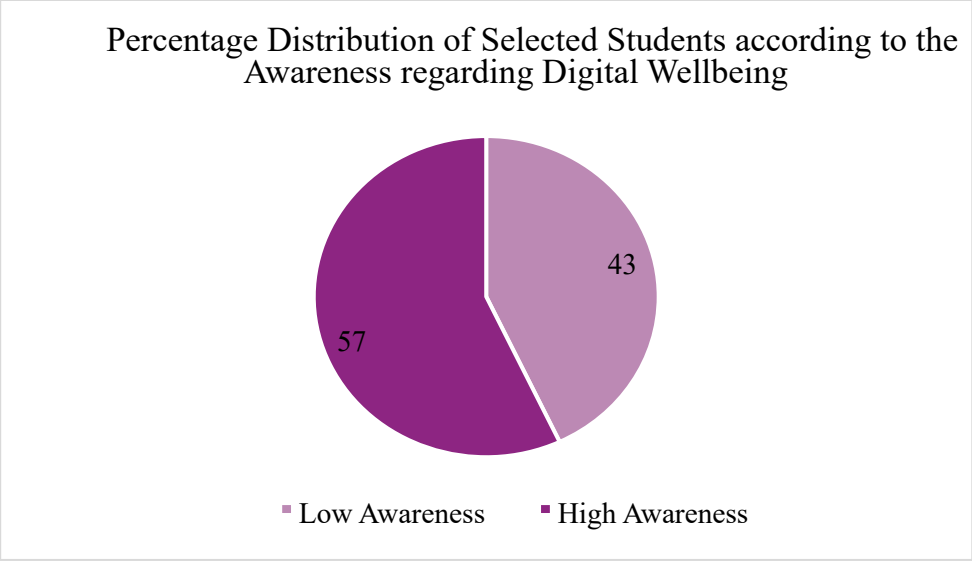


Figure 4 Percentage Distribution of Selected Students according to the Awareness regarding Digital Wellbeing (n=200)

4.2.2 Variable-wise Awareness of the Selected Students regarding Digital Wellbeing

Table 12 Percentage Distribution of the Selected Students according to the Awareness regarding Digital Wellbeing in relation to Selected Variables

n=200

S.no.	Variables	Category	Low awareness (%)	High awareness (%)
1.	Age	Emerging Adults	38.4	**61.6**
		Mature Learners	47.5	52.5
2.	Gender	Male	39	**61**
		Female	47	53
3.	Socio-economic Status	Low Socioeconomic Group	46.6	53.4
		High Socio- economic Group	35.8	**64.2**
4.	Educational Qualification	Under graduation	45	55
		Postgraduation	41	**59**
5.	Academic Discipline	Science and Technology	39	**61**
		Humanities and Social Sciences	47	53
6.	Wellbeing Consciousness	Less Wellbeing Consciousness	67.6	32.4
		More Wellbeing Consciousness	29.5	**70.5**
7.	Time Spent on Digital Devices	Less than 6 hours	36.3	**63.7**
		More than 6 hours	53.9	46.1
8.	Digital Identity Stress	Digital Identity Erosion	42.9	**57.1**

		Digital Identity Overload	43.1	56.9
9.	Type of Usage	Non-academic Purpose	52	48
		Academic Purpose	34	**66**

Table 12 reveals the percentage distribution of selected students at The Maharaja Sayajirao University, according to the awareness regarding digital well-being with reference to the selected variables. The table reveals that 61.6% of emerging adults had a higher awareness of digital well-being, whereas 52.5% of mature learners were informed.

The probable reason behind this finding could be that younger students are more engaged with digital platforms and actively seek digital well-being strategies to balance their usage. Mature learners, on the other hand, might not prioritize digital well-being due to different lifestyle habits and responsibilities.

Sixty-one percent (61%) of male students were aware about digital well-being, whereas only 53% of female students had awareness. This could be due to greater engagement with technology, digital literacy programs, and tech-related studies. Indian social norms often push males toward technology, while females tend to focus more on online safety and mental well-being. Peer influence also plays a role, as males frequently discuss tech topics, whereas females engage more in social and emotional aspects of digital use.

Sixty-four percent (64.2%) of the students from a higher socio-economic background were more aware of digital well-being than those from a lower socio-economic group (53.4%). The probable reason behind such findings could be that students from privileged backgrounds have better access to digital literacy resources, workshops, and discussions about digital well-being, whereas students from lower socio-economic groups may struggle with basic technological accessibility, making digital well-being a lesser priority.

Fifty-nine percent (59%) of the postgraduate students had a higher awareness level of digital well-being, whereas 55% of the undergraduate students had lower awareness. The probable reason behind this finding could be that postgraduate students have a more refined academic approach and greater access to discussions, research, and tools related to digital well-being.

Sixty-one percent (61%) of the students from Science and Technology disciplines had higher awareness of digital well-being, whereas 53% of the students from Humanities and Social Sciences had lower awareness. The probable reason for this could be that STEM students interact more with digital tools, AI-based applications, and technology related research, making them more conscious of digital well-being.

Seventy percent (70.5%) of students with high well-being consciousness had a greater awareness of digital well-being, whereas 67.6% of students with low well-being consciousness had lower awareness. This suggests that students who already value their mental and emotional well-being are more likely to explore digital well-being concepts to enhance their lifestyles.

Sixty-three percent (63.7%) of students who spent less than six hours on digital devices had a higher level of awareness of digital well-being, whereas 46.1% of those who spent more than six hours daily had lower awareness. The probable reason behind this could be that excessive digital use may negatively impact awareness, as students who spend long hours on devices may not actively seek digital well-being strategies.

Fifty-six percent (56.9%) of students experiencing digital identity overload had a higher awareness of digital well-being, whereas 57.1% of those facing digital identity erosion had lower awareness. This could indicate that students struggling with managing their online presence are more likely to seek strategies for digital well-being.

Sixty-six percent (66%) of students who used digital platforms for academic purposes had a significantly higher awareness of digital well-being, whereas 48% of students with non-academic digital usage had lower awareness. This suggests that students who use digital platforms for academic growth and skill enhancement are more informed about maintaining digital well-being.

The finding implies that focused digital literacy programs, targeted interventions for students with lower well-being consciousness, and balanced screen time management strategies could enhance digital well-being awareness among university students. Future initiatives should aim at bridging the digital well-being awareness gap across socio-economic groups, disciplines, and usage patterns.

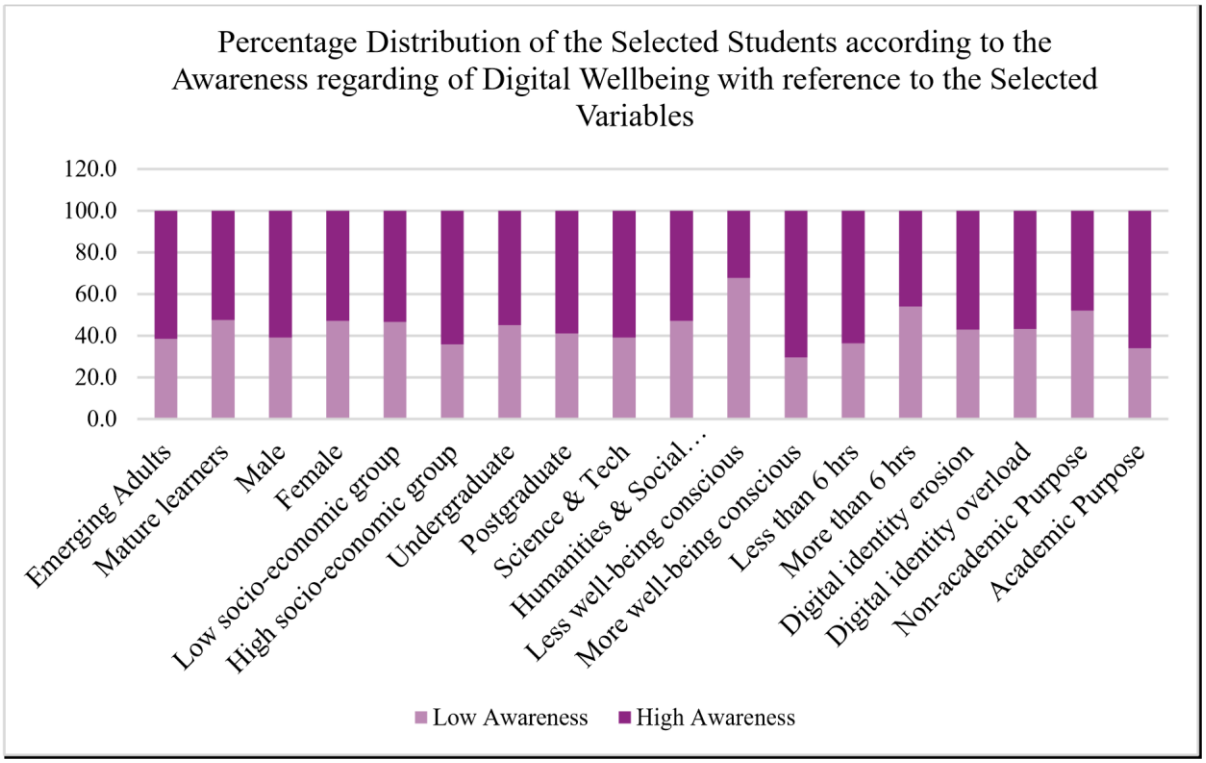


Figure 5 Percentage Distribution of the Selected Students according to the Awareness regarding Digital Wellbeing with reference to the Selected Variables (n=200)

4.2.3 Differences in the Awareness of the Selected Students regarding Digital Wellbeing with reference to the Selected Variables

Table 13 Independent-t test showing Variable-wise differences in the awareness regarding Digital Wellbeing of Selected Students

n=200

S.no.	Variables	Category	Mean	T-value	p-value	Remarks
1.	Age	Emerging Adults	35.7	1.605	0.11	Not Significant
		Mature Learners	34.4			
2.	Gender	Male	35.9	2.27	0.024	**Significant**
		Female	34.2			
3.	Socio-economic Status	Low Socioeconomic Group	34.71	1.25	0.213	Not Significant

		High Socio-economic Group	35.73			
4.	Educational Qualification	Under graduation	35.1	0.17	0.866	Not Significant
		Postgraduation	35			
5.	Academic Discipline	Science and Technology	35.4	0.843	0.40	Not Significant
		Humanities and Social Sciences	34.7			
6.	Wellbeing Consciousness	Less Wellbeing Consciousness	32.6	5.06	0.00	**Significant**
		More Wellbeing Consciousness	36.4			
7.	Time Spent on Digital Devices	Less than 6 hours	35.5	1.64	0.102	Not Significant
		More than 6 hours	34.3			
8.	Digital Identity Stress	Digital Identity Erosion	35.5	1.08	0.281	Not Significant
		Digital Identity Overload	34.6			
9.	Type of Usage	Non-academic Purpose	33.8	3.26	0.001	**Significant**
		Academic Purpose	36.3			

*****= Significant at Level 0.05**

Table 13 indicates that the awareness level of the selected students at The Maharaja Sayajirao University did not differ significantly according to the selected variables namely age, socio-economic status, educational qualification, academic discipline, time spent on digital devices and digital identity stress. Thus, the null hypotheses stating that there will be no significant

differences in the awareness level regarding digital wellbeing among the selected students with reference to the above-mentioned variables were accepted.

The table also indicates that the awareness level of the selected students at The Maharaja Sayajirao University differed significantly with the variables, gender, wellbeing consciousness and type of usage. Thus, the null hypotheses stating that there will be no significant difference in the awareness level of the selected students at The Maharaja Sayajirao University with respect to gender, wellbeing consciousness and type of usage was not accepted.

The probable reasons for such findings may be that male students tend to engage more with technological resources and discussions on digital literacy, which might contribute to higher awareness levels. Additionally, students who are more conscious of their wellbeing may actively seek information on digital well-being, thus improving their awareness. The significant impact of academic digital usage suggests that students who use digital platforms constructively for academic or self-improvement purposes are more likely to be aware of digital well-being strategies.

To enhance digital well-being awareness among students, educational institutions and policymakers can introduce targeted interventions. Awareness campaigns promoting responsible digital usage can be introduced in universities through workshops, seminars, and online resources. Digital well-being literacy can also be integrated into academic curriculums, particularly in fields where students exhibit lower awareness levels. Furthermore, posters, infographics, and social media campaigns can be used to disseminate key information on digital well-being, ensuring that all students, regardless of background, have equal access to knowledge.

4.3 Section - 3 Advantages of Digital Wellbeing

4.3.1 Advantages of Digital Well-being according to the Selected Students

Table 14 Percentage Distribution of Selected Students according to the Advantages of Digital Wellbeing

n=200

S.no.	Advantages of Digital Wellbeing	Percentage (%)
1.	Limited advantages of Digital Wellbeing	44
2.	Enhanced advantages of Digital Wellbeing	56

Table 14 reveals that slightly more than half, i.e., 56% of students, expressed enhanced advantages of digital well-being, whereas slightly less than half, i.e., 44%, perceived limited advantages. The findings suggest that while a majority of students recognize the benefits of digital well-being practices, a significant portion still need to realize their potential for optimizing digital habits and improving overall well-being.

The probable reason for such a distribution could be linked to students' awareness levels, with 56% demonstrating higher awareness compared to their counterparts. Students who reported enhanced advantages of digital well-being may have adopted healthier digital habits, such as controlled screen time, mindful social media usage, digital detox strategies, and better management of online distractions. These students may use technology for academic productivity, mental relaxation, and skill development while avoiding excessive digital consumption.

This finding is supported by the research conducted by Pham et al. (2021), titled *"Electronic Device Use Before Bedtime and Sleep Quality Among University Students."* The study revealed that increased electronic device use before bedtime is associated with poorer sleep quality among university students. This finding suggests that students who prioritize digital well-being may recognize the negative impact of late-night digital device usage on sleep and take measures to reduce it.

Additionally, Yamamoto et al. (2022), in their study *"Increased Digital Media Use is Associated with Sleep Problems Among University Students,"* found that extended digital media use correlates with a higher incidence of sleep problems among university students. This finding also shows that university students are aware of both the advantages and disadvantages of digital well-being, as excessive digital engagement can negatively affect their sleep and overall well-being.

Although many students recognize the advantages of digital well-being, more awareness and interventions are still required to support others in forming healthier digital habits for better well-being, as shown by the alignment of these research with the current findings.

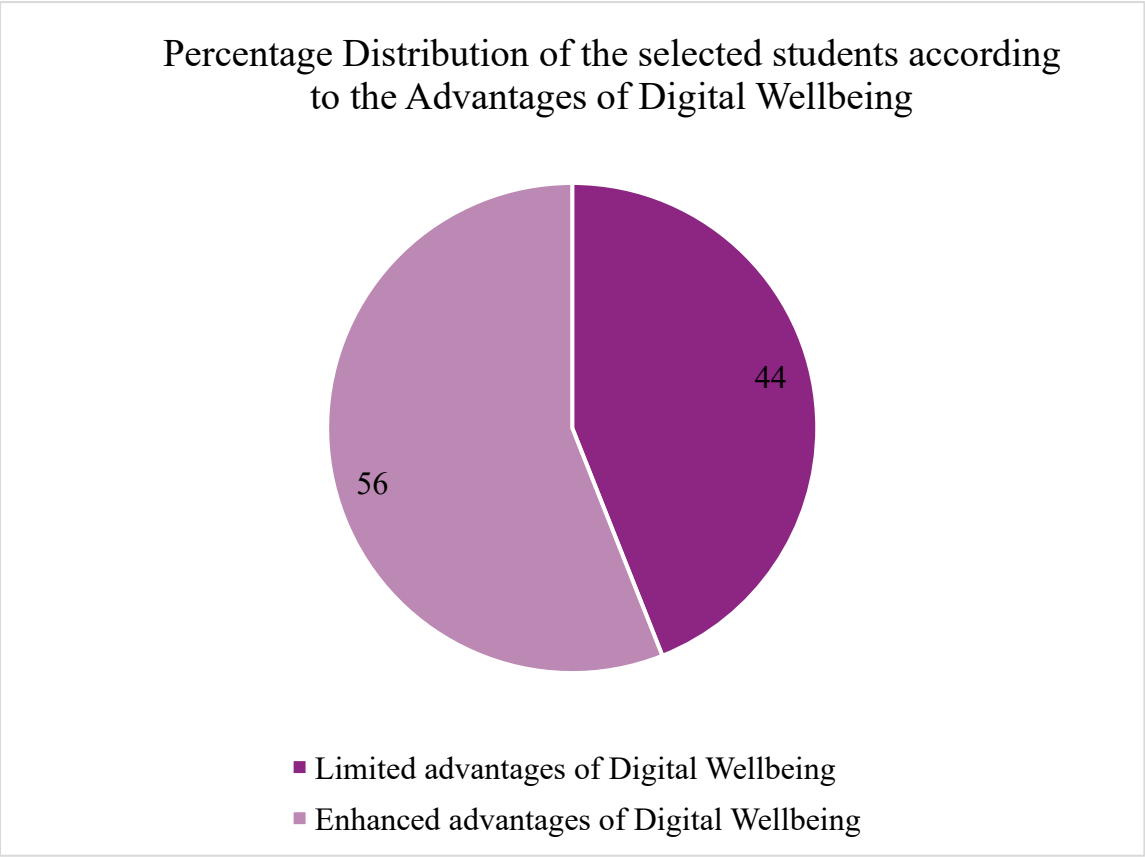


Figure 6 Percentage Distribution of the selected students according to the Advantages of Digital Wellbeing (n=200)

4.3.2 Variable-wise Advantages of Digital Well-being according to the Selected Students

Table 15 Percentage Distribution of the selected students according to Advantages of Digital Wellbeing with reference to the Selected Variables

n=200

S.no.	Variables	Category	Limited advantages of digital wellbeing (%)	Enhanced advantages of digital wellbeing (%)
1.	Age	Emerging Adults	45.5	54.5
		Mature Learners	42.6	**57.4**
2.	Gender	Male	49	51
		Female	39	**61**

3.	Socio-economic Status	Low Socioeconomic Group	42.9	**57.1**
		High Socio-economic Group	46.3	53.7
4.	Educational Qualification	Under graduation	43	**57**
		Postgraduation	45	55
5.	Academic Discipline	Science and Technology	48	52
		Humanities and Social Sciences	40	**60**
6.	Wellbeing Consciousness	Less Wellbeing Consciousness	42.3	**57.7**
		More Wellbeing Consciousness	45	55
7.	Time Spent on Digital Devices	Less than 6 hours	46	54
		More than 6 hours	40.8	**59.2**
8.	Digital Identity Stress	Digital Identity Erosion	40.8	**59.2**
		Digital Identity Overload	47.1	52.9
9.	Type of Usage	Non-academic purpose	52	48
		Academic purpose	36	**64**

Table 15 reveals the percentage distribution of selected students at The Maharaja Sayajirao University, according to the perceived advantages of digital well-being with reference to the selected variables.

Fifty-seven percent (57.4%) of mature learners reported enhanced advantages of digital well-being, whereas 54.5% of emerging adults reported similar benefits. On the other hand, 45.5% of emerging adults and 42.6% of mature learners felt they had limited advantages. The probable reason for this could be that mature learners may have a more structured approach to digital usage, allowing them to integrate digital tools effectively into their daily lives for work and personal growth. Hence, they could report enhanced advantages of digital wellbeing.

Sixty-one percent (61%) of female students perceived enhanced advantages of digital well-being, whereas 51% of male students reported similar benefits. Meanwhile, 39% of females and 49% of males felt they had limited advantages. The probable reason for this could be that female students tend to engage in more mindful digital practices, focusing on well-being-related content, while males might prioritize technology-driven interactions, which may not always contribute to well-being.

Fifty-seven percent (57.1%) of students from lower socio-economic backgrounds and 53.7% from higher socio-economic groups perceived enhanced advantages of digital well-being, while 42.9% and 46.3%, respectively, felt they had limited advantages. This finding implies that students from lower socio-economic backgrounds may perceive more advantages from digital engagement, as they might rely on digital tools for educational and career growth opportunities.

Fifty-seven percent (57%) of undergraduate students felt they had enhanced advantages of digital well-being, compared to 55% of postgraduate students. Meanwhile, 43% of undergraduates and 45% of postgraduates perceived limited advantages. The probable reason for this could be that both undergraduate and postgraduate students actively engage with digital resources, making their experiences of digital well-being somewhat similar.

Sixty percent (60%) of students from Humanities and Social Sciences perceived enhanced advantages of digital well-being, whereas 52% of students from Science and Technology disciplines reported similar benefits. In contrast, 40% of Humanities and Social Sciences students and 48% of Science and Technology students felt they had limited advantages. The probable reason for this could be that students from Humanities and Social Sciences engage more with digital discussions, creative platforms, and community-driven interactions, which contribute positively to their well-being.

Fifty-seven percent (57.7%) of students with lower well-being consciousness and 55% of those with higher well-being consciousness felt they had enhanced advantages of digital well-being.

The finding implies that regardless of their initial awareness, students can perceive digital well-being advantages when they actively manage their digital habits.

Fifty-nine percent (59.2%) of students who spent more than six hours daily on digital devices perceived enhanced advantages of digital well-being, whereas 54% of those using digital devices for less than six hours reported similar benefits. Meanwhile, 40.8% and 46%, respectively, felt they had limited advantages. The probable reason for this could be that extended digital engagement does not necessarily hinder well-being, as students may use digital tools for productive and fulfilling activities.

Fifty-nine percent (59.2%) of students experiencing digital identity erosion felt they had enhanced advantages of digital well-being, whereas 52.9% of those facing digital identity overload reported similar benefits. The finding implies that students who effectively navigate their online presence and manage their digital identities are more likely to perceive positive digital well-being outcomes.

Forty-eight percent (48%) of students who primarily used digital platforms for nonacademic purposes felt they had enhanced advantages of digital well-being, whereas 64% of those who used them for academic purposes reported similar benefits. Meanwhile, 52% and 36%, respectively, felt they had limited advantages. The probable reason for this could be that students engaged in academic digital activities might perceive greater wellbeing benefits, as their usage is often tied to learning, creativity, and skill-building.

These findings highlight the importance of mindful digital engagement in fostering perceived well-being among students. The probable reason for this could be that structured digital literacy programs, awareness initiatives, and responsible digital usage can help students maximize their perceived advantages of digital well-being. Universities should encourage positive digital practices, promote digital identity management awareness, and provide guidance on effective screen time strategies. By fostering a balanced and meaningful digital experience, students can perceive enhanced well-being while mitigating potential drawbacks.

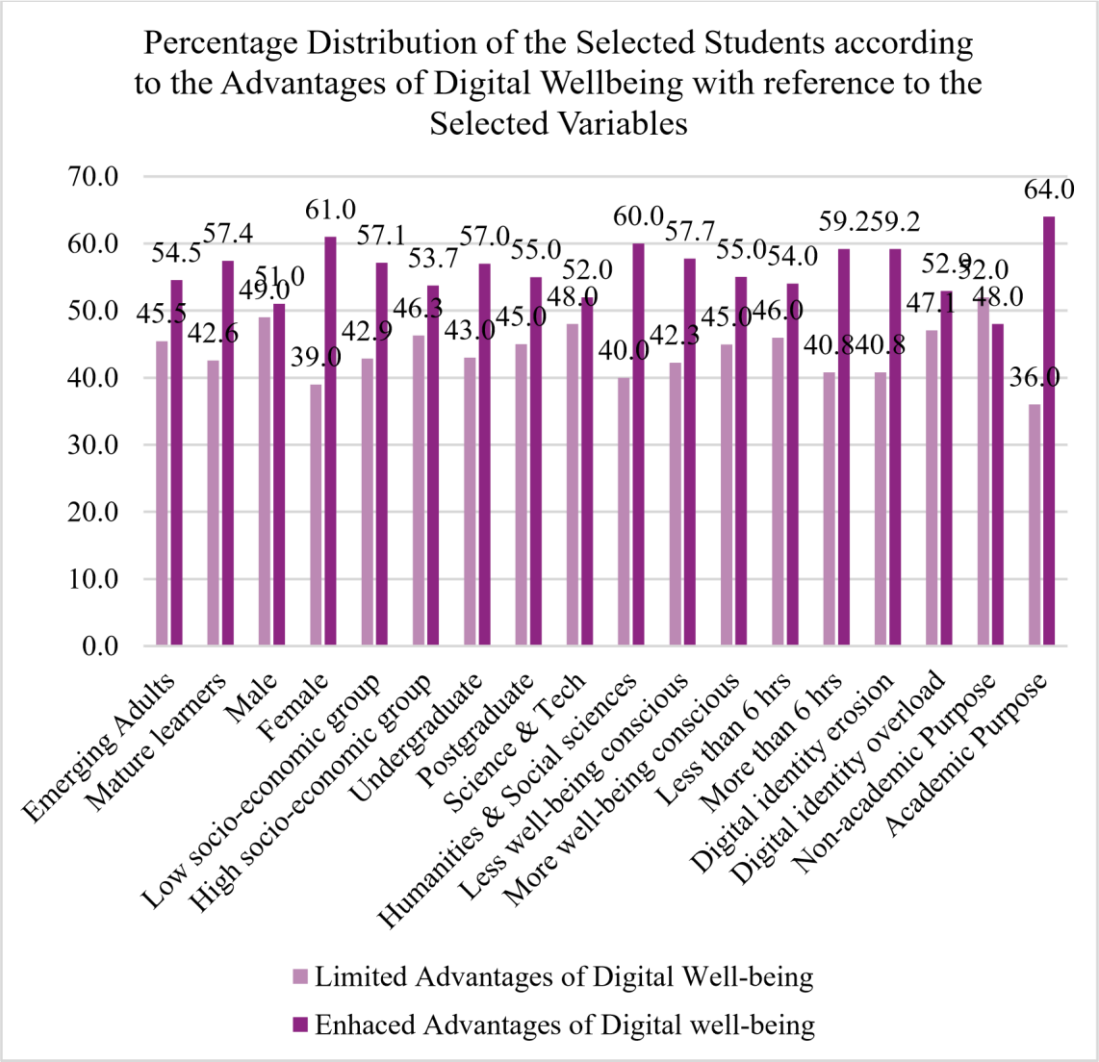


Figure 7 Percentage Distribution of the selected students according to the Advantages of Digital Wellbeing with reference to the Selected Variables (n=200)

4.3.3 Differences in the Advantages of Digital Wellbeing according to the Selected Students with reference to the Selected Variables

Table 16 Independent-t test showing Variable-wise differences in the Advantages of Digital Wellbeing according to the Selected Students

n=200

S.no.	Variables	Category	Mean	T-value	p-value	Remarks
1.	Age	Emerging Adults	32.9	1.15	0.252	Not Significant
		Mature Learners	33.8			
2.	Gender	Male	33	1.02	0.308	Not Significant
		Female	33.7			
3.	Socio-economic Status	Low Socioeconomic Group	33.24	0.38	0.707	Not Significant
		High Socio-economic Group	33.54			
4.	Educational Qualification	Under graduation	33.1	0.70	0.486	Not Significant
		Postgraduation	33.6			
5.	Academic Discipline	Science and Technology	33.1	0.75	0.45	Not Significant
		Humanities and				
		Social Sciences	33.6			
6.	Wellbeing Consciousness	Less Wellbeing Consciousness	33.5	0.417	0.68	Not Significant
		More Wellbeing Consciousness	33.2			
7.	Time Spent on Digital Devices	Less than 6 hours	33.3	0.198	0.843	Not Significant
		More than 6 hours	33.4			

8.	Digital Identity Stress	Digital Identity Erosion	33.9	1.421	0.157	Not Significant
		Digital Identity Overload	32.8			
9.	Type of Usage	Non-academic purpose	32.3	2.93	0.004	**Significant**
		Academic purpose	34.4			

*****= Significant at Level 0.05**

Table 16 indicates that the perceived advantages of digital well-being among the selected students at The Maharaja Sayajirao University did not differ significantly according to the selected variables, namely age, gender, socio-economic status, educational qualification, academic discipline, well-being consciousness, time spent on digital devices, and digital identity stress. Thus, the null hypotheses stating that there will be no significant differences in the perceived advantages of digital well-being among the selected students with reference to the above-mentioned variables was accepted.

The table also indicates that the perceived advantages of digital well-being among the selected students at The Maharaja Sayajirao University differed significantly with the variable, type of usage. Thus, the null hypothesis stating that there will be no significant difference in the perceived advantages of digital well-being among the selected students at The Maharaja Sayajirao University was not accepted.

The probable reasons for such findings could be that students' perceptions of digital well-being advantages are influenced more by how they engage with digital platforms rather than their demographic characteristics. Students who primarily engage in academic digital activities, such as educational research, productive social interactions, and skill development, may understand enhanced advantages of digital well-being. Conversely, students who engage in digital activities for non-academic purposes, such as entertainment or excessive social media use, might feel they experience limited advantages of digital well-being due to distractions, screen fatigue, or exposure to negative online interactions.

To improve students perceived digital well-being advantages, institutions should promote mindful and purposeful digital use through awareness programs, workshops, and curriculum

interventions. Universities may offer counselling and guidance on healthy digital habits to help students feel they are benefiting from technology while mitigating its negative effects. Social media campaigns, posters, and interactive sessions may educate students on responsible digital engagement. Incorporating digital well-being education into the curriculum can help students understand the long-term impact of their online behaviour. By fostering a culture of balanced digital use, students may perceive greater well-being benefits and improved productivity.

4.4 Section – 4 Adversities of Digital Distress

4.4.1 Adversities of Digital Distress according to the Selected Students

Table 17 Percentage Distribution of the Selected Students according to the Adversities of Digital Distress

n=200

S.no.	Adversities of Digital Distress	Percentage (%)
1.	Mild Digital Distress	50.5
2.	Severe Digital Distress	49.5

Table 17 reveals that slightly more than half, i.e., 50.5% of students, perceived mild digital distress, whereas slightly less than half, i.e., 49.5%, experienced severe digital distress regarding the adversities of digital well-being. The findings indicate that while a marginally higher proportion of students experienced only mild distress from digital engagement, a significant portion still reported severe distress, highlighting the potential challenges associated with excessive digital device usage.

The probable reason for such a distribution could be linked to students' digital habits, where those experiencing mild distress may have better control over their screen time, effectively balancing online and offline activities. They may engage in strategies such as scheduled breaks, digital detoxing, and mindful consumption of digital content, which helps in mitigating distress. In contrast, students experiencing severe digital distress might struggle with digital addiction, excessive social media engagement, and unmanaged academic pressure, leading to heightened stress, anxiety, and sleep disturbances. This small percentage difference underscores the urgent need for interventions that promote healthier digital habits and overall well-being.

This finding is supported by the research conducted by Elhai et al. (2017), titled *"Problematic Smartphone Use: A Conceptual Overview and Systematic Review of Relations with Anxiety and Depression Psychopathology."* The study revealed a strong correlation between excessive smartphone use and heightened levels of anxiety and depression, reinforcing the idea that digital distress can significantly impact students' mental health. This finding means that students who excessively engage with digital devices may experience heightened psychological distress, leading to anxiety and depression.

Additionally, Keles, McCrae, & Grealish (2020), in their study *"The Effects of Digital Technology on Adolescent Mental Health: A Systematic Review,"* found that prolonged screen time and excessive social media exposure contribute to mental health challenges, including increased distress, poor sleep quality, and diminished focus. This finding also interprets that continuous digital engagement negatively affects students' emotional and cognitive well-being, making it difficult to maintain focus and good sleep hygiene.

This finding is further supported by research conducted by Twenge et al. (2018), titled *"Associations Between Screen Time and Lower Psychological Well-Being Among Children and Adolescents."* The study revealed that extended screen exposure is linked to lower psychological well-being, reinforcing concerns about the adverse effects of digital engagement among students. This finding suggests that excessive screen time can reduce overall psychological well-being, indicating a need for structured digital use to avoid negative impacts on students' mental health.

The similarities in the findings of the quoted studies with the present findings suggest that while some students are able to navigate digital engagement effectively, a considerable proportion still experiences significant distress, emphasizing the need for awareness campaigns and behaviour change strategies to enhance digital well-being.

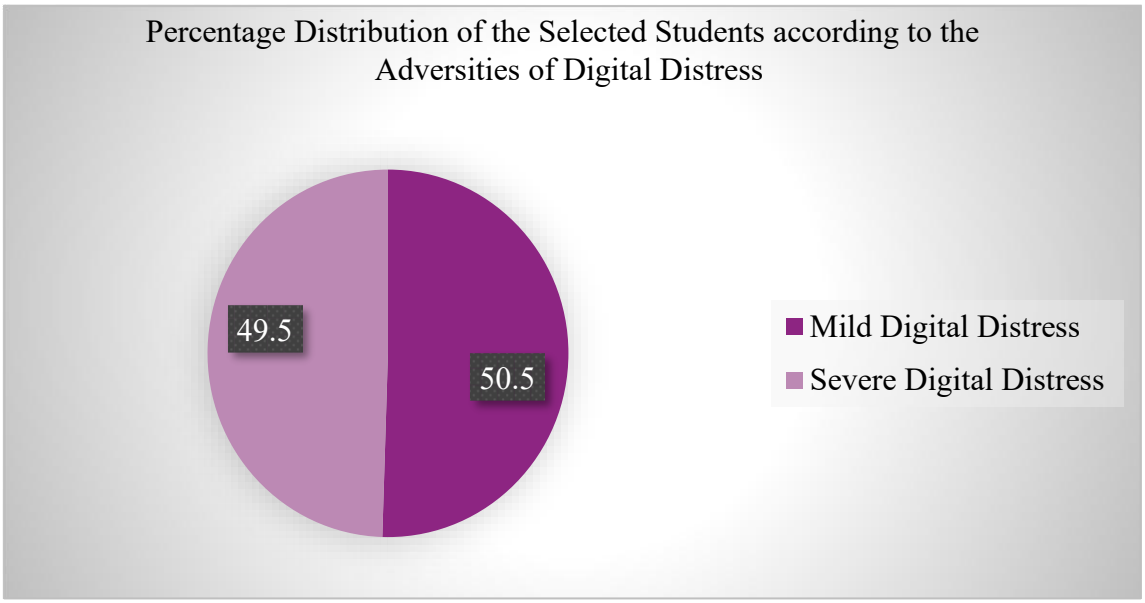


Figure 8 Percentage Distribution of the Selected Students according to the Adversities of Digital Distress (n=200)

4.4.2 Variable-wise Adversities of Digital Distress according to the Selected Students

Table 18 Percentage Distribution of the Selected Students according to the Adversities of Digital Distress with reference to the Selected Variables

n=200

S.no.	Variables	Category	Mild Digital Distress (%)	Severe Digital Distress (%)
1.	Age	Emerging Adults	50.5	49.5
		Mature Learners	50.5	49.5
	Gender	Male	51	49
		Female	50	50
2.	Socio-economic Status	Low Socioeconomic Group	53.4	46.6
		High Socio-economic Group	44.8	**55.2**

3.	Educational Qualification	Under graduation	47	53
		Postgraduation	**54**	46
4.	Academic Discipline	Science and Technology	46	54
		Humanities and Social Sciences	**55**	45
5.	Wellbeing Consciousness	Less Wellbeing Consciousness	**54.9**	45.1
		More Wellbeing Consciousness	48.1	51.9
6.	Time Spent on Digital Devices	Less than 6 hours	55.6	44.4
		More than 6 hours	42.1	**57.9**
7.	Digital Identity Stress	Digital Identity Erosion	**61.2**	38.8
		Digital Identity Overload	40.2	59.8
8.	Type of Usage	Non-academic purpose	**63**	37
		Academic purpose	38	62

Table 18 presents the percentage distribution of selected students from The Maharaja Sayajirao University, according to their perceived adversities of digital distress in relation to selected variables. The table revealed that 50.5% of emerging adults and 50.5% of mature learners experienced mild digital distress, whereas an equal percentage (49.5%) of both groups reported severe digital distress. This finding suggested that age did not significantly influence the severity of digital distress, as students across different age groups perceived similar challenges in their digital engagement.

Among male students, 51% indicated mild digital distress, whereas 50% of female students expressed mild distress, with an equal percentage (50%) of females reporting severe digital

distress. The probable reason for this could be that while digital distress levels appeared nearly balanced across genders, male students tended to experience slightly higher levels of mild distress.

Students from different socio-economic backgrounds also reported varying levels of digital distress. 53.4% of students from low socio-economic backgrounds experienced mild digital distress, whereas 55.2% of students from high socio-economic backgrounds indicated severe digital distress. This suggested that students from higher socio-economic backgrounds may have had greater exposure to digital engagement, which potentially led them to experience more severe distress.

When comparing academic levels, 47% of undergraduate students reported mild digital distress, while 54% of postgraduate students indicated the same. Meanwhile, 53% of undergraduates and 46% of postgraduates experienced severe digital distress. The probable reason for this could be that the younger students, particularly undergraduates, were more vulnerable to digital distress due to increased exposure to social and academic digital pressures.

Among academic disciplines, 46% of students from Science & Technology backgrounds reported mild digital distress, whereas 54% indicated severe digital distress. In contrast, 55% of students from Humanities & Social Sciences experienced mild distress, and 45% reported severe distress. This suggested that students in technical fields may have struggled more with digital stress, possibly due to the intensive nature of their coursework and screen-based tasks.

Students' well-being consciousness also played a role in their perceived digital distress. 54.9% of students with lower well-being consciousness experienced mild digital distress, while 51.9% of those with higher well-being consciousness reported severe digital distress. This suggested that although lower awareness contributed to distress, even those conscious of well-being struggled with managing severe digital stress.

Regarding screen time, 55.6% of students who spent less than six hours daily on digital devices experienced mild distress, whereas 57.9% of those who spent more than six hours reported severe digital distress. The findings implied that excessive screen time significantly contributed to severe distress, reinforcing students' perceptions of the need for better digital time management.

When considering digital identity stress, 61.2% of students who experienced digital identity erosion reported mild distress, whereas 59.8% of those who felt overwhelmed by digital identity overload experienced severe distress. The probable reason for this could be that students facing erosion might have developed coping strategies, while those struggling with their digital presence expressed greater distress.

Students' digital engagement also influenced their perceptions of distress. 63% of students who engaged in non-academic digital usage reported mild distress, whereas 62% of those engaged in academic digital usage expressed mild distress. The findings suggested that regardless of how students engaged digitally, they experienced distress, but non-academic digital habits tended to exacerbate the problem.

These findings highlighted students' perceptions of digital distress and underscored the need for strategies to help them cope. The main reason for their distress could have been excessive screen time, the pressure of managing digital identities, and unhealthy usage habits. To address these concerns, universities should introduce programs promoting mindful digital use, encourage students to be aware of their well-being, and provide training on effective time management. By setting clear guidelines for healthy digital habits, students could develop a better balance between their online activities and overall well-being.

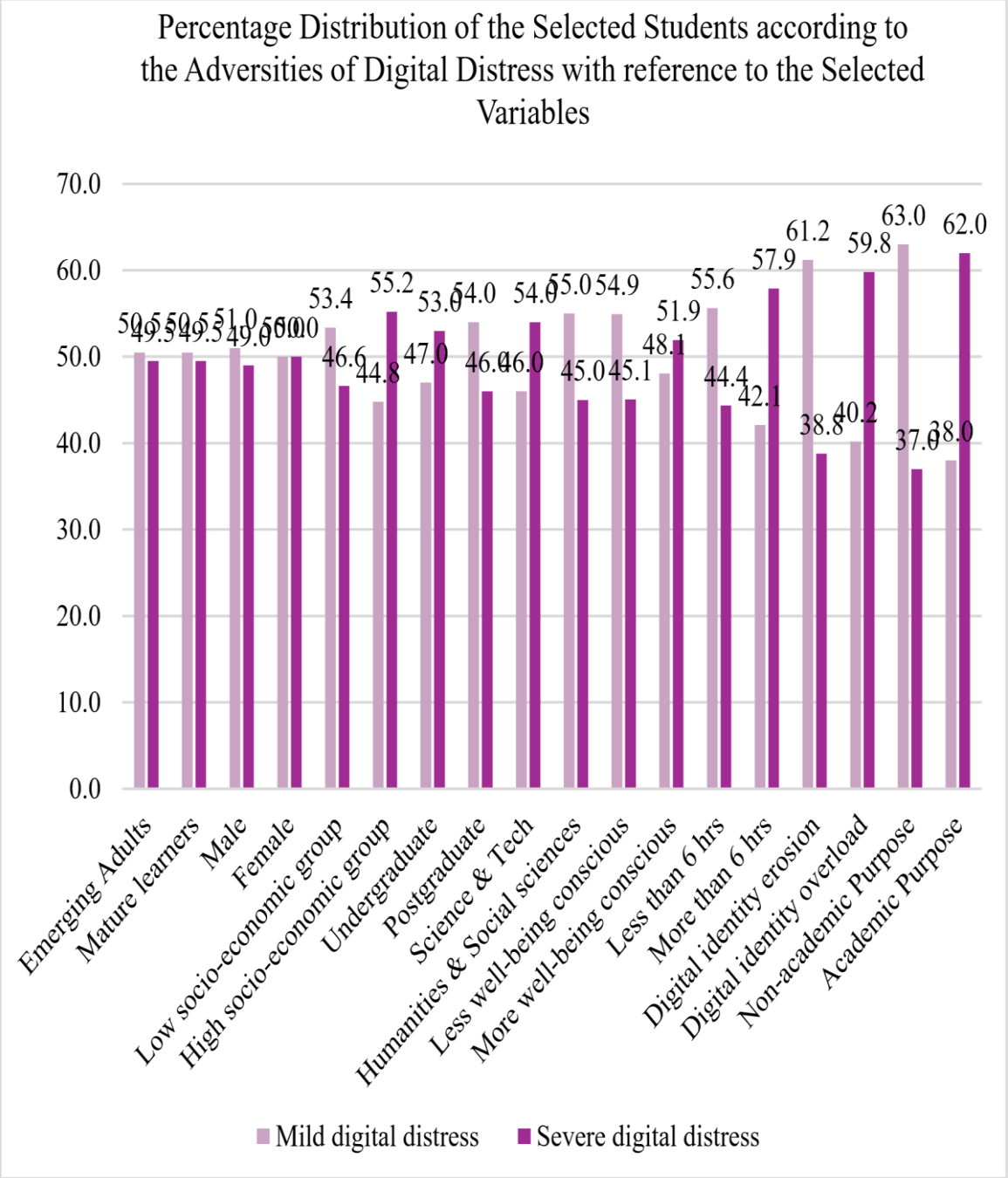


Figure 9 Percentage Distribution of the Selected Students according to the Adversities of Digital Distress with reference to the Selected Variables (n=200)

4.4.3 Differences in the Adversities of Digital Distress according to the Selected Students with reference to the Selected Variables

Table 19 Independent-t test showing Variable-wise differences in the Adversities of Digital Distress according to the Selected Students

n=200

S.no.	Variables	Category	Mean	T-value	p-value	Remarks
1.	Age	Emerging Adults	34	0.54	0.59	Not Significant
		Mature Learners	33.6			
2.	Gender	Male	33.9	0.19	0.85	Not Significant
		Female	33.7			
3.	Socio-economic Status	Low Socioeconomic Group	33.5	1.26	0.21	Not Significant
		High Socio-economic Group	34.5			
4.	Educational Qualification	Under graduation	34.1	0.77	0.44	Not Significant
		Postgraduation	33.5			
5.	Academic Discipline	Science and Technology	34.3	1.17	0.24	Not Significant
		Humanities and Social Sciences	33.3			
6.	Wellbeing Consciousness	Less Wellbeing Consciousness	32.8	1.86	0.07	Not Significant
		More Wellbeing Consciousness	34.3			
7.	Time Spent on Digital Devices	Less than 6 hours	33.5	1.01	0.32	Not Significant
		More than 6 hours	34.3			

8.	Digital Identity Stress	Digital Identity Erosion	32.6	2.95	0.00	**Significant**
		Digital Identity Overload	34.9			
9.	Type of Usage	Non-academic Purpose	32.1	4.53	0.00	**Significant**
		Academic Purpose	35.5			

*****= Significant at Level 0.05**

Table 19 indicates that the adversities of digital distress among the selected students at The Maharaja Sayajirao University did not differ significantly according to the selected variables, namely age, gender, socio-economic status, educational qualification, academic discipline, well-being consciousness, and time spent on digital devices. Thus, the null hypotheses stating that there will be no significant differences in the adversities of digital distress among the selected students with reference to the above-mentioned variables was accepted.

The table also shows that the adversities of digital distress among the selected students at The Maharaja Sayajirao University differed significantly with the variables of digital identity stress and type of usage. Therefore, the null hypotheses stating that there will be no significant difference in the adversities of digital distress among the selected students was not accepted.

A probable reason for these findings could be that students' digital distress was shaped more by their digital identity stress and the nature of their digital engagement rather than their demographic characteristics. Many students felt overwhelmed by digital identity overload, as they constantly managed multiple online profiles, consumed excessive information, and experienced pressure to remain active on social media, leading to stress, anxiety, and cognitive overload. In contrast, students who perceived their digital presence as minimal or balanced, reflecting digital identity erosion, seemed to experience less digital distress.

Additionally, the type of digital usage appeared to play a key role—students engaged in academic digital activities such as research and professional networking reported higher cognitive load and performance pressure, which may have increased their digital distress. On the other hand, students who primarily used digital platforms for nonacademic purposes, such

as entertainment or passive scrolling, perceived lower levels of distress since these activities required fewer responsibilities. This suggested that both excessive digital engagement and the nature of online activities had a significant impact on students' well-being.

To help students cope with digital distress, universities could implement social media campaigns, display informative posters, and conduct interactive online sessions to educate students about managing digital overload. Integrating digital well-being practices into university curricula would equip students with effective strategies to handle digital challenges. By fostering a culture of healthy digital habits, students could experience reduced and improved mental well-being.

4.5 Section – 5 Actions for Digital Wellbeing

4.5.1 Actions for Digital Wellbeing according to the Selected Students

Table 20 Percentage Distribution of the Selected Students according to the Actions for Digital Wellbeing

n=200

S.no.	Actions for Digital Wellbeing	Percentage (%)
1.	Less effective actions	51
2.	More effective actions	49

Table 26 reveals that slightly more than half, i.e., 51% of students, felt that actions to improve digital well-being were less effective, whereas slightly less than half, i.e., 49%, found them effective. The findings suggest that while a small majority of students perceived digital well-being actions as less impactful, a significant portion still recognized their effectiveness in maintaining healthier digital habits.

The probable reason for such findings could be the ease and appeal of entertainment-based content, which encourages habitual scrolling and binge-watching. Social media’s addictive design and a lack of awareness about the impact of passive digital consumption on mental well-being and academics further contribute to this trend. However, the nearly equal proportion of students who found the actions effective indicates a growing awareness of digital literacy and the benefits of using technology for learning and self-improvement. This shift may be influenced by increasing initiatives that promote mindful digital engagement.

This finding is supported by the research conducted by Orben et al. (2019), titled *"The Association Between Adolescent Well-Being and Digital Technology Use."* The study revealed that higher screen time and passive digital consumption are associated with increased anxiety and decreased life satisfaction. This finding suggests that excessive screen exposure without mindful engagement can negatively affect students' overall well-being, leading to stress and dissatisfaction.

Additionally, Valkenburg et al. (2022), in their study *"Social Media Use and Adolescents' Well-Being: Developing a Typology of Person-Specific Effects,"* found that active digital engagement—such as content creation and meaningful interactions— positively impacts mental health, whereas excessive passive consumption leads to heightened stress and lower well-being. This finding also interprets that students who engage actively with digital platforms in a constructive manner may experience positive mental health outcomes, while those who passively consume content may face negative effects.

This finding is further supported by research conducted by Twenge et al. (2018), titled *"Associations Between Screen Time and Lower Psychological Well-Being Among Children and Adolescents."* The study revealed that prolonged passive digital consumption, especially on social media, contributes to increased depressive symptoms and reduced psychological well-being. This finding means that students who engage excessively in passive digital use, such as scrolling through social media without active interaction, may experience a decline in their psychological well-being.

While some students acknowledge the advantages of taking steps to promote their digital well-being, a sizable portion continues to struggle with passive and excessive digital involvement, according to these investigation' agreement with the current findings. This emphasizes the necessity of more focused treatments to support mindful digital practices and enhance general wellbeing.

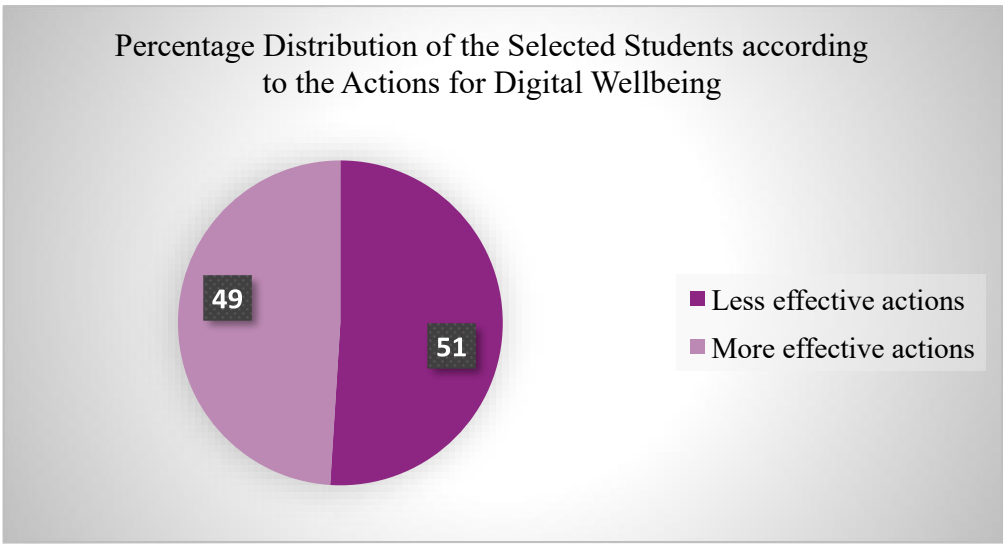


Figure 10 Percentage Distribution of the Selected Students according to the Actions for Digital Wellbeing (n=200)

4.5.2 Variable-wise Actions for Digital Wellbeing according to the Selected Students

Table 21 Percentage Distribution of the Selected Students according to the Actions for Digital Wellbeing with reference to the Selected Variables

n=200

S.no.	Variables	Category	Less effective actions (%)	More effective actions (%)
1.	Age	Emerging Adults	43.4	56.6
		Mature Learners	**58.4**	41.6
2.	Gender	Male	48	52
		Female	**54**	46
3.	Socio-economic Status	Low Socio-economic Group	48.9	51.1
		High Socio- economic Group	**55.2**	44.8
4.		Under graduation	43	57

	Educational Qualification	Postgraduation	**59**	41
5.	Academic Discipline	Science and Technology	51	49
		Humanities and Social Sciences	51	49
6.	Wellbeing Consciousness	Less Wellbeing Consciousness	**62**	38
		More Wellbeing Consciousness	45	55
7.	Time Spent on Digital Devices	Less than 6 hours	48.4	51.6
		More than 6 hours	**55.3**	44.7
8.	Digital Identity Stress	Digital Identity Erosion	42.9	57.1
		Digital Identity Overload	**58.8**	41.2
9.	Type of Usage	Non-academic purpose	**57**	43
		Academic purpose	45	55

Table 21 reveals the percentage distribution of selected students at The Maharaja Sayajirao University, according to their perception of actions towards digital well-being with reference to the selected variables.

The table shows that 56.6% of emerging adults felt their actions towards digital wellbeing were more effective, whereas the majority, i.e., 58.4% of mature learners, felt their actions were less effective. The probable reason for this could be that emerging adults perceive themselves as more adaptable to digital well-being strategies, whereas mature learners, due to their established digital habits, may find it difficult to modify their practices.

Among genders, 52% of males felt their actions were more effective, whereas the majority, i.e., 54% of females, felt their actions were less effective. The finding implies that males perceive themselves as taking a more proactive approach in managing their digital habits, whereas females may feel less inclined towards conscious digital wellbeing efforts.

Fifty one percent (51.1%) of students from low socio-economic backgrounds felt their actions were more effective, whereas the majority, i.e., 55.2% of students from high socio-economic backgrounds, felt their actions were less effective. This suggests that students from higher socio-economic backgrounds might perceive easier access to digital devices as leading to passive consumption, while those from lower socioeconomic groups may feel more mindful of their digital engagement due to limited resources.

A majority, i.e., 57% of undergraduates, perceived their actions as more effective towards digital well-being, compared to 41% of postgraduates. The probable reason for this could be that the undergraduates, being in the early stages of academic exposure, are more open to adopting digital well-being strategies, whereas postgraduates may feel their ingrained digital habits make behavioural change less likely.

The academic discipline-wise distribution indicates that 49% of students from Science & Technology and 49% from Humanities & Social Sciences perceived their actions as more effective. This suggests that academic discipline does not significantly influence digital well-being practices among students.

However, a majority, i.e., 62% of students with low well-being consciousness, felt their actions were less effective, whereas 55% of students with high well-being consciousness felt their actions were more effective towards digital well-being. This highlights the importance of awareness programs in fostering conscious digital engagement.

Fifty one percent (51.6%) of students who spend less than 6 hours daily on digital devices felt their actions were more effective towards their digital well-being, whereas the majority, i.e., 55.3% of students who spend more than 6 hours daily, felt their actions were less effective. This finding implies that excessive screen time contributes to the perception of passive digital behaviour, whereas limited usage fosters a more intentional engagement with digital tools.

A similar trend is observed in digital identity stress, where 57.1% of students experiencing digital identity erosion felt their actions were more effective, while the majority, i.e., 58.8% of those experiencing digital identity overload, felt their actions were less effective. This may be

because students facing digital identity erosion take corrective measures, whereas those experiencing overload struggle to manage their digital well-being effectively.

The nature of digital usage also impacts digital well-being. A majority, i.e., 57% of students engaging in non-academic purposes felt their actions were less effective, whereas 55% of those involved in academic purposes felt their actions were more effective towards digital well-being. This finding implies that the type of digital engagement significantly impacts digital health, reinforcing the idea that productive usage leads to more conscious digital management.

The findings emphasize the need for digital well-being interventions tailored to different student demographics. Awareness programs can help mature learners, postgraduates, and students from high socio-economic backgrounds feel more confident in their digital well-being practices. The probable reason for this could be that the factors such as low well-being consciousness, excessive screen time, and digital identity overload contribute to the perception of less effective digital behaviour.

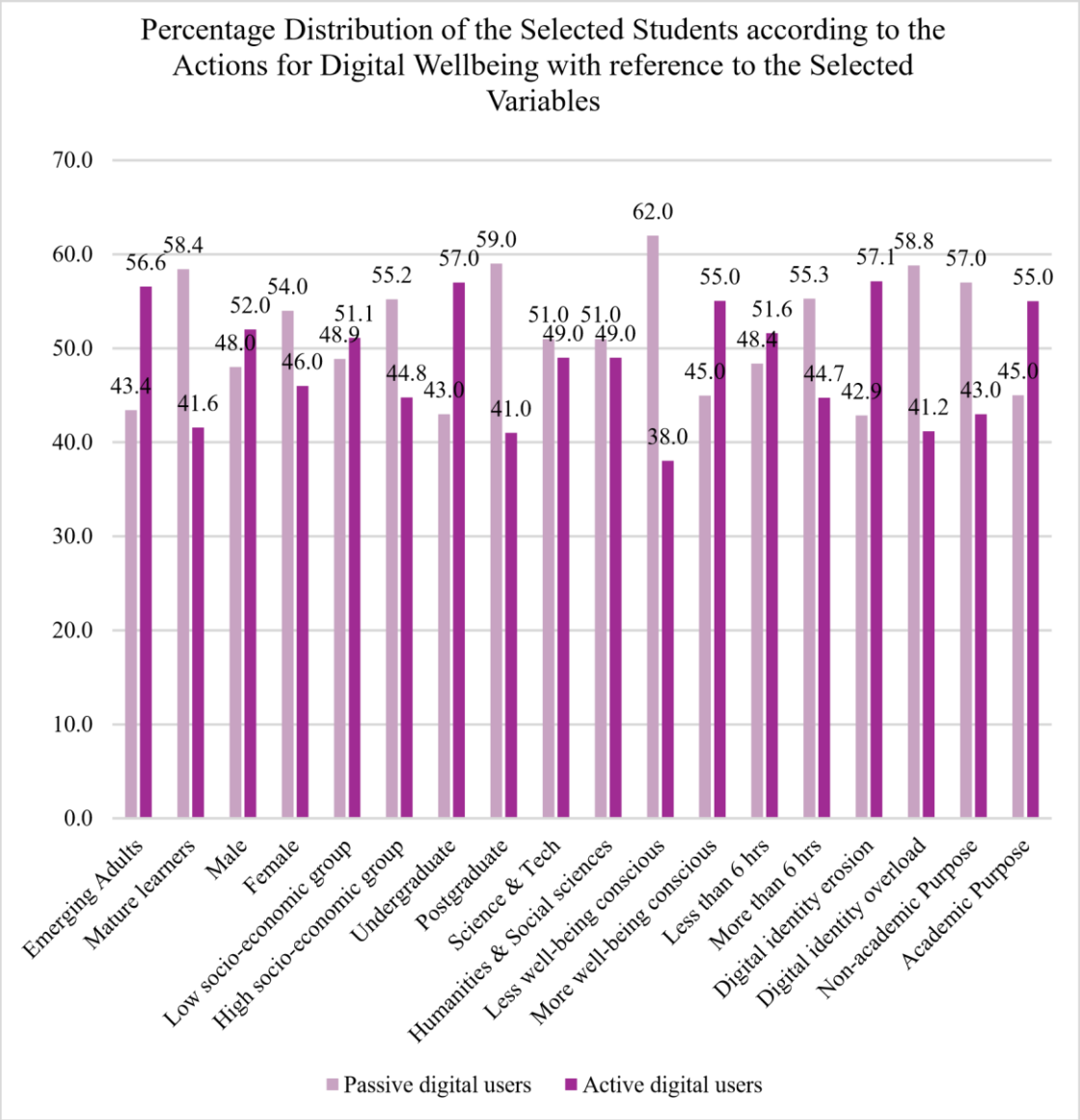


Figure 11 Percentage Distribution of the Selected Students according to the Actions for Digital Wellbeing with reference to the Selected Variables (n=200)

4.5.3 Differences in the Actions for Digital Wellbeing according to the Selected Students with reference to the Selected Variables

Table 22 Independent-t test showing Variable-wise differences in the Actions for Digital Wellbeing according to the Selected Students

n=200

S.no.	Variables	Category	Mean	T-value	p-value	Remarks
1.	Age	Emerging Adults	59.3	1.38	1.38	

		Mature Learners	57.9			Not Significant
2.	Gender	Male	59.1	1.05	0.29	Not Significant
		Female	58.1			
3.	Socioeconomic Status	Low Socioeconomic Group	58.8	0.61	0.54	Not Significant
		High Socio-economic Group	58.1			
4.	Educational Qualification	Under graduation	59.4	1.58	0.12	Not Significant
		Postgraduation	57.8			
5.	Academic Discipline	Science and Technology	58.6	0.67	0.95	Not Significant
		Humanities and				
		Social Sciences	58.6			
6.	Wellbeing Consciousness	Less Wellbeing Consciousness	57.2	2.08	0.04	**Significant**
		More Wellbeing Consciousness	59.4			
7.	Time Spent on Digital Devices	Less than 6 hours	59.4	1.93	0.55	Not Significant
		More than 6 hours	57.3			
8.	Digital Identity Stress	Digital Identity Erosion	59.5	1.68	0.09	Not Significant
		Digital Identity				
		Overload	57.7			
9.	Type of Usage	Non-academic Purpose	57.1	2.94	0.00	**Significant**

		Academic Purpose	60.1			

***= Significant at Level 0.05**

Table 22 indicates that the Actions according to the selected students at The Maharaja Sayajirao University did not differ significantly according to the selected variables, namely age, gender, socio-economic status, educational qualification, academic discipline, time spent on digital devices, and digital identity stress. Thus, the null hypotheses stating that there will be no significant differences in the Actions according to the selected students with reference to the above-mentioned variables was accepted.

The table also indicates that the Actions according to the selected students at The Maharaja Sayajirao University differed significantly with the variables, well-being consciousness and type of usage. Thus, the null hypotheses stating that there will be no significant difference in the Actions according to the selected students at The Maharaja Sayajirao University were not accepted.

The probable reason for such findings could be that students with higher well-being consciousness are already aware of healthy digital habits, making them more likely to perceive their actions as effective in improving their digital well-being. They may feel more confident in their understanding of screen time management, mental health impacts, and responsible technology use, encouraging them to adopt corrective measures.

Additionally, students engaged in academic digital activities are more likely to perceive their digital platform usage as beneficial for learning, research, and skill development, which enhances their awareness of digital well-being and the importance of maintaining a balanced digital lifestyle. In contrast, students who primarily use digital platforms for non-academic purposes such as entertainment or social media may lack the same level of awareness or motivation to adopt digital well-being strategies, as their engagement is often driven by relaxation rather than self-improvement.

To enhance students' digital well-being, institutions should offer awareness programs, digital detox activities, and mindfulness training. Workshops and online campaigns can help students recognize unhealthy digital habits and adopt better practices. Promoting responsible digital use will help students build sustainable habits for overall well-being.

CHAPTER 5
SUMMARY

CHAPTER 5

SUMMARY

5.1 Introduction

Digital Wellbeing is about crafting and maintaining a healthy relationship with technology. It's about how technology serves us and moves us towards our goals, rather than distracting us, interrupting us or getting in the way. Being in control of technology enables us to use its full potential and gain all the benefits of it. (Google) https://digitalwellbeing.org/what-is-digital-wellbeing-a-list-of-definitions/

In today's digital era, the concept of digital well-being has garnered significant attention due to the pervasive use of technology in daily life. While digital advancements have enhanced communication, productivity, and access to information, excessive use can lead to adverse effects such as anxiety, stress, and sleep disturbances. Studies have shown a positive correlation between heavy digital technology usage and negative psychological outcomes, particularly among adolescents (O'Sullivan et al., 2020). Furthermore, the constant influx of information and notifications can overwhelm individuals, leading to decreased attention spans and increased stress levels (Gazzaley & Rosen, 2016).

To maintain digital well-being, it is essential for individuals to practice self-regulation by setting boundaries on screen time, engaging in regular digital detoxes, and fostering mindful technology use. Organizations can contribute by promoting balanced digital environments and encouraging breaks to minimize digital overload. Additionally, technology companies should adopt ethical design practices that prioritize user wellbeing, such as reducing addictive features and promoting healthy usage patterns. Governments and educators play a crucial role in raising awareness through digital literacy programs, ensuring that individuals can use technology responsibly. By implementing these strategies, society can cultivate a healthier relationship with technology, maximizing its benefits while mitigating its adverse effects.

5.1.1 Objectives of the Study

1. To study the **profile of the selected respondents** of The Maharaja Sayajirao University of Baroda.

Awareness Regarding Digital Well-Being

2. To study the awareness level of the selected respondents regarding digital well-being.

3. To study the awareness level of the selected respondents regarding digital well-being with reference to the following variables:

- age,
- gender,
- socio-economic status,
- educational status,
- academic discipline,
- well-being consciousness,
- time spent on digital devices,
- digital identity stress,
- type of usage of digital devices.

4. To study the significant differences in the awareness level of the selected respondents regarding digital well-being with reference to the selected variables.

Advantages of Digital Well-being

5. To study the advantages of digital well-being from the selected respondents.

6. To study the advantages of digital well-being from the selected respondents with reference to the above-mentioned variables.

7. To study the significant differences in the advantages of digital well-being from the selected respondents with reference to the selected variables.

Adversities of Digital Distress

8. To study the adversities of digital distress from the selected respondents.

9. To study the adversities of digital distress from the selected respondents with reference to the above-mentioned variables.

10. To study the significant differences in the adversities of digital distress from the selected respondents with reference to the selected variables.

Actions for Digital Well-Being

11. To study the Actions by the selected respondents regarding digital wellbeing.

12. To study the Actions by the selected respondents regarding digital wellbeing with reference to the above-mentioned variables.

13. To study the significant differences in the Actions by the selected respondents regarding digital well-being with reference to the selected variables.

5.1.2 Null Hypotheses of the Study

1. There will be **no significant differences in the awareness level** of the youth regarding digital well-being with reference to their:

- age,
- gender,
- socio-economic status,
- educational status,
- academic discipline,
- well-being consciousness,
- time spent on digital devices,
- digital identity stress,
- type of usage of digital devices.

2. There will be **no significant differences in the advantages** of digital wellbeing with reference to the above-mentioned variables.

3. There will be **no significant differences in the adversities** of digital wellbeing with reference to the above-mentioned variables.

4. There will be **no significant differences in the actions to be adopted** for digital wellbeing with reference to the above-mentioned variables.

5.1.3 Assumptions of the Study

1. Selected respondents will possess varying **awareness level** regarding digital well-being.
2. Selected respondents will perceive different **advantages** related to digital well-being.

3. Selected respondents experience various **adversities** related to digital distress.
4. Selected respondents have varying views on the **actions to enhance digital wellbeing.**
5. Selected respondents will vary according to the **selected variables**.

5.1.4 Delimitations of the study

1. The study will be **confined to undergraduate and postgraduate students enrolled at The Maharaja Sayajirao University of Baroda.**
2. The research will **focus on assessing digital well-being**, specifically examining awareness, advantages, adversities, and Actions related to digital well-being among the selected respondents.

5.2 Methodology

5.2.1 Pilot Study

The investigator first conducted a pilot study in July 2024 with 30 students from The Maharaja Sayajirao University of Baroda to assess digital well-being awareness, advantages, adversities and actions for maintaining digital wellbeing. The findings indicated that while students recognized the importance of digital balance, many struggled with excessive screen time, social media addiction, digital distractions, and issues such as habitual device usage, fear of missing out (FOMO), cyberbullying, and mental health concerns. Based on these observations, the investigator identified the need for a broader study to explore digital well-being in a larger student population.

5.2.2 Population of the Study

The population of the present study comprised of undergraduate and postgraduate students enrolled at The Maharaja Sayajirao University of Baroda.

5.2.3 Sample of the Study

The sample of the present study comprised a total of 200 students from The Maharaja Sayajirao University of Baroda, with an equal representation of 100 male and 100 female students.

5.2.4 Description of the Tool

Table 23 Description of the Research Tool

Section	Content	Total no. of items	Tools	Response System
1.	**Profile of the Respondents** (Age, Gender, Educational Qualification, Academic discipline, Annual Family Income)	6	Checklist & Open-ended	Selecting an option from a given list that best applies to the respondent and writing the correct answer where required
	Part A: Well-Being Consciousness	10	Interval Scale	3-point rating scale
	Part B: Time spent on digital devices	1	Checklist	Selecting an option from a given list that best applies to the respondents
	Part C: Digital Identity Stress	10	Interval Scale	3-point rating scale
	Part D: Type of usage of digital devices	12	Interval Scale	3-point rating scale
2.	**Awareness of Digital Well-Being**	15	Interval Scale	3-point rating scale
3.	**Advantages of Digital Well-Being**	14	Interval Scale	3-point rating scale
4.	**Adversities of Digital Distress**	15	Interval Scale	3-point rating scale

5.	**Actions for Digital Wellbeing**	24	Interval Scale	3-point rating scale

5.2.5 Scoring and Categorization of the Data

Scoring and Categorization of Independent Variables

Table 24 Scoring and Categorization of Independent Variables

Variables	Basis	Category
Age	21 and below 21 above	Emerging Adults Mature Learners
Gender		Male Female
Socio-economic Status	5000-80,000 81000-1,200,000	Low High
Educational Status		Under Graduation Post Graduation
Academic Discipline	Faculty-wise	Science and Technology Social Sciences and Humanities
Time Spent on Digital Devices	0-6 hours 6+ hours	Less than 6 hours More than 6 hours

Variables	No. of Statements	Nature of Statements	Possible Scores		Response System	Category
			Min	**Max**		
Wellbeing Consciousness	10	Positive	10	30	Always Sometimes Never	Less Wellbeing Conscious More Wellbeing Consciousness
Digital Identity Stress	10	Negative	10	30	Great Extent Some Extent Less Extent	Digital Identity Erosion Digital Identity Overload
Type of Usage	12	Academic and Non-academic	16	48	Great Extent Some Extent Less Extent	Academic Purpose Non-academic Purpose

Scoring and Categorization of Dependent Variables

Table 25 Scoring and Categorization of Dependent Variables

Variables	No. of Statements	Nature of Statements	Possible Scores		Response System	Category
			Min	Max		
Awareness of Digital Wellbeing	15	Positive	15	45	Great Extent Some Extent Less Extent	Low awareness High awareness
Advantages of Digital Wellbeing	14	Positive	14	42	Great Extent Some Extent Less Extent	Enhanced advantages of digital Wellbeing Limited advantages of digital Wellbeing
Adversities in Digital Distress	15	Negative	15	45	Great Extent Some Extent Less Extent	Severe Digital Distress Mild Digital Distress

Actions for Digital Wellbeing	24	Positive	24	72	Great Extent Some Extent Less Extent	Less Effective Actions More Effective actions

Table 26 Categorization of the Scores for Awareness level of Digital Wellbeing

Categories	Basis	Range
Low awareness	Below Mean	20-34
High awareness	Mean and above mean	35-45

Table 27 Categorization of the Scores for Advantages of Digital Wellbeing

Categories	Basis	Range
Limited Advantages of Digital Wellbeing	Below Mean	14-32
Enhanced Advantages of Digital Wellbeing	Mean and above mean	33-42

Table 28 Categorization of the Scores for Adversities of Digital Distress

Categories	Basis	Range
Mild Digital Distress	Below Mean	17-33
Severe Digital Distress	Mean and above mean	34-45

Table 29 Categorization of the Scores for Actions for Digital Wellbeing

Categories	Basis	Range
Less Effective Actions	Below Mean	37-58
More Effective Actions	Mean and above mean	59-72

5.2.6 Plan for Statistical Analysis of the Data

Table 30 Different Statistical Measure used for the Analysis of the Data

Sr. No.	Purpose	Statistical Measures
1.	Background information of the selected students at The Maharaja Sayajirao University of Baroda	Percentage
	Awareness level of Digital Wellbeing	
2.	Awareness level of the Selected Students regarding Digital Wellbeing	Percentage
3.	Variable-wise Awareness of the Selected Students regarding Digital Wellbeing	Percentage
4.	Differences in the Awareness of the Selected Students regarding Digital Wellbeing with reference to the Selected Variables	Percentage & Independent T-test
	Advantages of Digital Wellbeing	
5.	Advantages of Digital Well-being according to the Selected Students	Percentage
6.	Variable-wise Advantages of Digital Wellbeing according to the Selected Students	Percentage
7.	Differences in the Advantages of Digital Wellbeing according to the Selected Students with reference to the Selected Variables	Percentage & Independent T-test
	Adversities of Digital Distress	

8.	Adversities of Digital Distress according to the selected Students	Percentage
9.	Variable-wise Adversities of Digital Distress according to the selected Students	Percentage
10.	Differences in the Adversities of Digital Distress according to the selected Students with reference to the Selected Variables	Percentage & Independent T-test
	Action for Digital Wellbeing	
11.	Actions for Digital Wellbeing according to the Selected Students	Percentage
12.	Variable-wise Actions for Digital Wellbeing according to the Selected Students	Percentage
13.	Differences in the Actions for Digital Wellbeing according to the Selected Students with reference to the Selected Variables	Percentage & Independent T-test

5.3 Major Findings of the Study

5.3.1 Profile of the Respondents

- A little over half, i.e., 50.5% of the respondents were mature learners.
- The majority, 66% of the students, belonged to the low socio-economic group.
- 64.5% of the students exhibited a higher level of well-being consciousness.
- 62% of the students spend less than six hours daily on digital devices.
- Digital identity stress was nearly balanced, with 51% experiencing digital identity overload.

- The type of digital usage was equally distributed, with 50% engaging in academic and 50% in non-academic activities.

5.3.2 Awareness Regarding Digital Well-Being

- A little more than half, i.e., 57% of the students, had a higher level of awareness regarding digital well-being.
- 61.6% of emerging adults had a greater awareness of digital well-being.
- Among genders, 61% of male students were aware compared to 53% of female students.
- Students from a higher socio-economic background exhibited greater awareness at 64.2%, whereas 53.4% of students from a lower socio-economic background were aware.
- A higher proportion of postgraduate students (59%) had awareness compared to 55% of undergraduate students.
- In terms of academic discipline, 61% of students from Science and Technology had greater awareness, whereas only 53% of students from Humanities and Social Sciences exhibited higher awareness.
- Among students with well-being consciousness, 70.5% of those with high wellbeing consciousness demonstrated greater awareness.
- With regard to screen time, 63.7% of students who spent less than six hours daily on digital devices had higher awareness, whereas only 46.1% of those spending more than six hours exhibited the same.
- Awareness was higher among students experiencing digital identity overload at 56.9%, whereas 57.1% of those facing digital identity erosion exhibited lower awareness.
- Students who used digital platforms for academic purposes had significantly higher awareness at 66%, while only 48% of those with non-academic digital usage were aware.

Differences in the awareness regarding Digital Well-being according to the selected students with reference to the Selected Variables

- The awareness level of the selected respondents at The Maharaja Sayajirao University of Baroda did not differ significantly according to the selected variables namely on

age, socio-economic status, educational qualification, academic discipline, time spent on digital devices and digital identity stress.

- The awareness level of the selected respondents at The Maharaja Sayajirao University of Baroda differed significantly with the variable to gender, wellbeing consciousness, and type of digital usage.

5.3.3 Advantages of Digital Wellbeing

- The findings indicate that slightly more than half, i.e., 56% of students, reported enhanced advantages of digital well-being.
- 57.4% of mature learners reported enhanced advantages of digital well-being.
- Among genders, 61% of female students perceived enhanced advantages compared to 51% of males.
- Students from lower socio-economic backgrounds had a slightly higher perception of digital well-being advantages at 57.1%, compared to 53.7% of those from higher socio-economic backgrounds.
- Undergraduate students had a slightly higher perception at 57% compared to 55% of postgraduates.
- Students from Humanities and Social Sciences reported enhanced advantages at 60%, compared to 52% of Science and Technology students.
- Among well-being consciousness levels, 57.7% of students with lower well-being consciousness perceived enhanced advantages.
- In terms of screen time, 59.2% of students who spent more than six hours daily on digital devices perceived enhanced advantages.
- Regarding digital identity stress, 59.2% of students experiencing digital identity erosion reported enhanced advantages.
- Students who used digital platforms primarily for academic purposes perceived the highest advantages at 64%.

Differences in the Advantages of Digital Well-being according to the selected students with reference to the Selected Variables

- The advantages of digital wellbeing according to the selected respondents at The Maharaja Sayajirao University of Baroda did not differ significantly according to the

selected variables namely age, gender, socio-economic status, educational qualification, academic discipline, well-being consciousness, time spent on digital devices and digital identity stress.

- The advantages of digital wellbeing according to the selected respondents at The Maharaja Sayajirao University of Baroda differed significantly with the variable of type of usage.

5.3.4 Adversities of Digital Distress

- The findings indicate that slightly more than half, i.e., 50.5% of students expressed mild digital distress.
- 50.5% of both emerging adults and mature learners expressed mild digital distress.
- Among genders, 51% of male students reported mild distress, while 50% of females experienced mild distress.
- Socio-economic background played a role, with 55.2% of students from higher socio-economic backgrounds expressed severe distress.
- In terms of academic level, 54% of postgraduates reported mild distress, while 53% of undergraduates reported severe distress.
- Academic discipline showed that 54% of Science & Technology students expressed severe distress, while 55% of Humanities & Social Sciences students reported mild distress.
- Well-being consciousness revealed that 54.9% of students with lower wellbeing consciousness expressed mild distress, while 51.9% of those with higher well-being consciousness reported severe distress.
- Screen time showed that 57.9% of students who spent more than six hours daily on digital devices reported severe distress.
- Digital identity stress indicated that 61.2% of students expressed digital identity erosion had mild distress, whereas 59.8% of those facing digital identity overload expressed severe distress.
- Regarding digital engagement, 63% of students who engaged in non-academic digital usage reported mild distress.

Differences in the Adversities of Digital Distress according to the selected students with reference to the Selected Variables

- The adversities of digital distress among the selected respondents at The Maharaja Sayajirao University of Baroda did not differ significantly according to the selected variables namely on namely age, gender, socio-economic status, educational qualification, academic discipline, well-being consciousness and time spent on digital devices.
- The adversities of digital distress among the selected respondents at The Maharaja Sayajirao University of Baroda differed significantly with the variable digital identity stress and type of usage.

5.3.5 Actions for Digital Wellbeing

- The findings revealed that slightly more than half, i.e., 51% of students, felt that actions to improve digital well-being as less effective.
- 56.6% of emerging adults felt actions as more effective.
- Among genders, 52% of males believed actions to be more effective, whereas 54% of females felt actions to be less effective.
- In terms of socio-economic background, 55.2% of students from high socioeconomic backgrounds perceived actions to be less effective.
- A majority of 57% of undergraduates felt actions to be less effective compared to 41% of postgraduates.
- Academic discipline did not show a significant difference.
- Well-being consciousness showed that 62% of students with low well-being consciousness felt actions to be less effective.
- Screen time analysis indicated that 55.3% of students spending more than six hours daily felt actions to be less effective
- Regarding digital identity stress, 57.1% of students expressed digital identity erosion felt actions to be less effective.
- Digital usage patterns revealed that 57% of students engaged in non-academic purposes felt actions to be less effective.

Differences in the Actions for Digital Wellbeing according to the selected students with reference to the Selected Variables

- The actions according to the selected students at The Maharaja Sayajirao University of Baroda did not differ significantly according to the selected variables namely age, gender, socio-economic status, educational qualification, academic discipline, time spent on digital devices and digital identity stress.
- The actions according to the selected students at The Maharaja Sayajirao University of Baroda differed significantly with the variables, well-being consciousness and type of usage.

5.4 Conclusion and Suggestions

The present study, *"Digital Well-being in Higher Education: Students' Awareness, Advantages, Adversities, and Actions,"* was conducted to understand students' awareness of digital well-being and their perspectives on its advantages, challenges, and the effectiveness of various actions taken to improve it. The study aimed to explore the ways students perceive digital well-being, whether they recognize its importance, and what they think about the effectiveness of different strategies used to enhance it.

The study found that although most students understood the idea of digital well-being, a sizable percentage still lacked thorough understanding of it. Fewer students took into account factors including mental health, digital identity stress, and cognitive overload, but many linked social media use and screen time management to digital well-being. According to the findings, although awareness is rising, more needs to be done to fully comprehend how digital habits impact academic, emotional, and psychological wellbeing.

In terms of advantages, students generally acknowledged how digital well-being practices enhanced mental health, decreased digital stress, and increased academic productivity. Setting limits on screen time, according to some, enhances time management and personal wellbeing, while others felt that being attentive of digital usage helped people stay focused, cut down on distractions, and get better sleep. Some students, however, voiced doubts about whether initiatives to promote digital wellbeing actually have an impact, suggesting that although they understand the idea, they are not sure how much it affects their daily lives.

Students expressed worries about excessive screen time, academic stress, social media pressure, and the challenge of maintaining a balance between digital and real life while talking

about difficulties. Many students said that being constantly connected caused stress, mental fatigue, and a short attention span. While some noted that excessive use of digital platforms leads to inflated expectations and comparison anxiety, others believed that digital dependence had a detrimental effect on their social relationships and sleep patterns. It was challenging to strike a balance because some students continued to see internet interaction as essential for both social and academic reasons, even after acknowledging these difficulties.

Regarding actions, Students' views of their efficacy in fostering digital well-being were not all the same. While some felt that awareness campaigns, digital detox programs, and institutional policies would be more successful in promoting mindful digital practices, many others thought that strategies like setting screen time limits, taking breaks from digital devices, and participating in offline activities could enhance wellbeing. While some students believed that self-control and self-discipline are essential in preserving digital balance, others favoured the notion that colleges should actively support initiatives that promote digital literacy and well-being. Some students, however, expressed doubt that these steps could effectively lessen digital stress, indicating the need for more methodical techniques.

The results of this study offered a solid basis for creating guidelines and strategies that can encourage students to adopt better digital practices. It is crucial to create an atmosphere in which students feel prepared to take significant action toward efficient digital management in addition to becoming more conscious of digital well-being. In order to ensure that technology is used as a tool for learning and growth rather than as a source of stress and distraction, educational institutions, legislators, and students themselves can work together to promote a culture of mindful digital engagement. Giving pupils the skills and information they need to preserve their wellbeing may not only be advantageous but also essential as the world grows more reliant on digital tools.

Based on the literature study, this investigator has come to the conclusion that adding courses on digital well-being to academic programs could significantly benefit students. The emphasis might be on efficiently managing digital well-being while retaining technological involvement, as opposed to doing away with digital devices entirely. Though the examined research also emphasizes its deeper ramifications beyond obvious problems like eye strain and stress, social media has helped raise awareness regarding digital well-being. Continuous use of digital platforms has been associated with cognitive overload, lower productivity, and diminished focus, which can have an impact on one's personal and academic well-being. These

findings support the necessity of incorporating organized instruction on digital well-being and interventions that could help people balance their use of technology while reducing its detrimental impacts.

5.5 Future Recommendations for the Research

- Action Project can be taken up to spread awareness and knowledge regarding Digital Wellbeing.
- Comparative Study on opinions related to Digital Wellbeing of Under Graduation and Post Graduation Students.
- Research study on Opinions/Perceptions related to Digital Wellbeing of University Professors.
- Longitudinal Study to track changes in digital well-being awareness and habits among students over time.
- Intervention-Based Study on the effectiveness of digital well-being programs in improving students' awareness and reducing digital distress.

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APPENDICES

APPENDIX 1
RESEARCH TOOL

Section – 1
Profile of the Respondents

Direction – Please read carefully and give the following information by tick marking ■ ✓or writing wherever necessary in the space provided.

1. Age - _____

2. Gender
    - Male
    - Female
    - Non-binary/Third gender
    - Prefer not to say
    - Other (please specify) _____

3. Annual Family Income - _____

4. Educational Status
    - Undergraduate
    - Postgraduate

5. Academic Discipline - _____

6. What is the primary use of your digital devices? (Select all that apply)
        - Academic work
        - Non-academic work (entertainment/leisure/socialization)
        - Both

A. Well-Being Consciousness

A - Represents "Always", ST - Represents "Sometimes", N - Represents "Never"

STATEMENT	A	ST	N
1. I make conscious efforts to maintain my physical health through regular exercise.			
2. I regularly monitor my mental well-being.			
3. I actively try to maintain a balance between my work responsibilities and personal life to avoid burnout.			
4. I practice techniques like meditation, breathing exercises, or hobbies to manage my stress levels.			
5.I prioritize getting enough sleep each night to support my overall health and well-being.			
6. I take steps to manage negative feelings in healthy ways.			
7. I value maintaining healthy relationships with friends and family as part of my overall well-being.			
8. I engage in activities such as reading, learning, or self-reflection to foster personal growth and well-being.			
9. I pay attention to the quality of food I eat.			
10. I regularly take time for self-care activities (like going for walk, writing journal or sitting in sun) that help me relax and recharge.			

B. Time Spent on Digital Devices

1. How many hours per day do you typically spend on digital devices (smartphone, laptop, tablet, etc.)?

   ☐ Less than 2 hours
   ☐ 2-4 hours
   ☐ 4-6 hours
   ☐ 6-8 hours
   ☐ More than 8 hours

C. Digital Identity Stress

GE - Represents "Great Extent", SE - Represents "Some Extent", LE - Represents "Less Extent"

STATEMENT	GE	SE	LE
1. Feel pressured to maintain an ideal persona on social media.			
2. Concerned about the privacy of personal information online.			
3. Feel anxious about the feedback (likes, comments, shares) receive on social media.			
4. It is stressful to manage multiple online identities (e.g., different profiles for different platforms).			
5. Experience stress from the fear of missing out on social events or trends shared online.			
6. Often compare to others based on their social media profiles, which causes stress.			
7. Feel pressured to respond promptly to messages and notifications on digital platforms.			
8. It is difficult to balance online activities with offline life.			
9. Worry about how online actions and posts affect digital reputation.			
10. Experience stress from online harassment or bullying.			

D. Type of Usage of Digital Devices

GE - Represents "Great Extent", SE - Represents "Some Extent", LE - Represents "Less Extent"

STATEMENT	GE	SE	LE
I use digital devices			
1. for completing assignments, research, and other academic activities.			
2. to interact on social media platforms (e.g., Facebook, Instagram, Twitter).			
3. for entertainment purposes. (such as watching movies, streaming videos, or playing games)			
4. to access digital libraries and academic journals.			
5. to shop online for products and services.			
6. to take notes and organize study materials.			
7. to stay updated with news and current events.			
8. for tracking health and fitness activities, such as using fitness apps or wearable technology.			
9. to collaborate with classmates on group projects via online tools.			
10. for creating and delivering presentations.			
11. for managing personal finances, such as online banking and budgeting apps.			
12. for submitting assignments and projects through educational platforms.			

SECTION-2

Awareness of Digital Well-Being

Instruction: Following are the statements to check "THE AWARENESS OF DIGITAL WELL-BEING"

Direction: Please read the following statements carefully and tick mark ■✓in the most appropriate Colum.

GE - Represents "Great Extent", SE - Represents "Some Extent", LE - Represents "Less Extent"

STATEMENTS	GE	SE	LE
1. I am aware of the concept of digital well-being.			
Impact of Digital Well-being			
2. I understand the impact of digital technology on mental health.			
3. I am aware of the benefits of maintaining digital well-being, such as improved academic performance and better mental health.			
4. I am aware of the social implications of digital well-being.			
Strategies for Maintaining Digital Well-being			
5. I am aware of the strategies to maintain a healthy balance between digital use and overall well-being.			
6. I know how to set boundaries for digital device usage.			
7. I know the institutional resources available to help maintain digital well-being (e.g., counseling, workshops).			
Risks Associated with Digital Device Usage			
8. I know the risks associated with excessive use of digital devices.			
9. I understand the concept of digital identity stress.			
10. I know the signs of digital addiction.			
Digital Detox Practices			
11. I am aware of how to manage my screen time effectively.			
12. I understand the importance of taking regular breaks from digital devices.			
13. I am familiar with digital detox practices.			
14. I consciously limit my time on digital devices.			
15. I engage in other hobbies/activities that do not involve digital devices.			

Section – 3

Advantages of Digital Well-Being

Instruction: Following are the statements to check "THE ADVANTAGES OF DIGITAL WELL-BEING"

Direction: - Please read the following statements carefully and tick mark ■✓in the most appropriate Colum.

GE - Represents "Great Extent", SE - Represents "Some Extent", LE - Represents "Less Extent"

STATEMENT	GE	SE	LE
1. Digital well-being helps to increase concentration.			
2. Managing digital use positively impacts academic results.			
3. Maintaining digital well-being reduces stress levels.			
4. Practicing digital well-being helps to feel more mentally balanced.			
5. Digital well-being practices help to manage time effectively.			
6. Controlling the digital device usage helps to complete tasks more efficiently.			
7. Digital well-being allows for more meaningful interactions with people.			
8. Balancing digital use can improve relationships with family and friends.			
9. Practicing digital well-being boosts overall productivity.			
10. More is accomplished when digital habits are managed effectively.			
11. Digital well-being contributes to physical health by reducing screen time.			
12. Practicing digital well-being leads to fewer physical health issues, such as eye strain and poor posture.			
13. Digital well-being helps to stay focused on tasks.			
14. It is easier to maintain attention during activities when digital use is under control.			

Section – 4

Adversities of Digital Malaise

Instruction: Following are the statements to check "ADVERSITIES OF DIGITAL MALAISE"

Direction: Please read the following statements carefully and tick mark ■✓in the most appropriate Colum.

GE - Represents "Great Extent", SE - Represents "Some Extent", LE - Represents "Less Extent"

STATEMENT	GE	SE	LE
1. Feel overwhelmed by the amount of information consume online.			
2. Sleep is negatively affected by the use of digital devices.			
3. Prolonged screen time leads to eye strain.			
4. Extended use of digital devices leads to physical discomfort. (e.g., neck pain, back pain)			
5. Productivity decreases because of spending too much time on digital devices for non-productive activities.			
6. Social isolation is experienced due to spending too much time on digital platforms.			
7. Excessive use of digital devices causes mental fatigue.			
8. Use of digital devices increases levels of anxiety.			
9. It is difficult to limit time spent on digital devices.			
10. Relationships with family and friends are negatively impacted by digital device usage.			
11. Academic performance suffers due to excessive use of digital devices.			
12. Engagement in physical activities reduces due to the time spend on digital devices.			
13. It is difficult to concentrate on tasks due to digital distractions.			
14. Digital over usage devices may increase the chances of cyberbullying.			
15. Stress/anxiousness increases due to dysconnectivity with digital devices.			

SECTION-5

Actions to Be Taken for Digital Well-Being

Instruction: The following section consists of statements related to **" ACTIONS TO BE TAKEN FOR DIGITAL WELL-BEING".**

Direction: Please read the following statements carefully and tick mark ■ ✓ in most appropriate column.

GE - Represents "Great Extent", SE - Represents "Some Extent", LE - Represents "Less Extent"

STATEMENTS	GE	SE	LE
1. Set clear boundaries on the amount of time spend on digital devices each day.			
2. Take regular breaks from using digital devices.			
3. Engage in offline activities.			
4. Practice mindful usage of social media.			
5. Seek support or counselling whenever feel overwhelmed by digital usage.			
6. Participate in workshops/seminars focused on digital well-being.			
7. Use apps designed to improve digital well-being.			
8. Balance digital interactions with face-to-face interactions.			
9. Actively educate on best practices for maintaining digital well-being.			
10. Digital device free schedule should be planned.			
11. Mindless scrolling should be avoided.			
12. Priority should be given to physical well-being.			
13. Engagement in offline leisure activities should be planned.			
14. Counsellors should be consulted if one feels digital fatigue.			
15. Educational Institutes should			
a. Introduce digital well-being course in the curriculum.			
b. Organize awareness session on digital well-being.			
c. Designate technology free spaces like canteen, lounges, etc.			
d. Provide tools for monitoring screen time to students free of cost.			
e. Promote 20-20-20 rule. (every 20 minutes look at something 20 feet away for 20 seconds)			
f. Create Initiatives for digital detox.			
g. Provide cybersecurity trainings.			
h. Provide digital well-being apps.			
i. Train the teachers to identify digital fatigue amongst students.			
j. Involve parents in digital well-being initiatives.			

APPENDIX 2
TOOL VALIDATION LETTER

Department of Extension and Communication

Faculty of Family and Community Sciences

The Maharaja Sayajirao University of Baroda, Vadodara

To, Date: 25/10/2024

Subject: Request letter for Tool Validation

Respected Madam,

I, Ms. **Kanishka Rathore**, master's student of the Department of Extension and Communication, Faculty of Family and Community Sciences, The Maharaja Sayajirao University of Baroda, Vadodara.
I am working on a research study entitled **"Digital Wellbeing in higher education: Students' Awareness, Advantages, Adversities & Actions".**
For that I have created a questionnaire to study the "Students' Awareness, Advantages, Adversities & Actions regarding Digital Wellbeing" of selected Undergraduate and Post graduate students of MSU, Baroda.
In this regard, I have attached a questionnaire that contains questions regarding Students' Awareness, Advantages, Adversities & Actions for Digital Wellbeing.
You are selected as one of the experts to validate the tool as you have had valuable experiences working in this field. To make my study worthwhile, I kindly ask for your assistance in verifying the content validity and response system of my research tool.
I intend to express my gratitude in advance for your invaluable advice and time in helping me create a genuine tool.

Yours faithfully,
Kanishka Rathore
Sr. M.Sc.

Prof. Anjali Pahad
Supervisor & Dean
Faculty of Family and Community Sciences
The M.S. University of Baroda, Vadodara

APPENDIX 3
CONSENT LETTER

Department of Extension and Communication

Faculty of Family and Community Sciences

The Maharaja Sayajirao University of Baroda, Vadodara

To, Date: 25/10/2024

Subject: Consent Letter

Dear Respondents,

My name is Ms. Kanishka Rathore. At present, I am pursuing a master's programme from the Department of Extension and Communication, Faculty of Family and Community Sciences, The Maharaja Sayajirao University of Baroda, Vadodara. As a partial fulfilment of my master's programme, I have undertaken research Entitled "**Digital Wellbeing in higher education: Students' Awareness, Advantages, Adversities & Actions**".

As a result, I require insightful responses and details from you. I make sure any information you submit will be kept strictly confidential and used exclusively for academic purposes.

I appreciate your kind cooperation in advance in this matter.

Thanking You,
Yours faithfully,

Kanishka Rathore
Sr. M.Sc.

Prof. Anjali Pahad
Supervisor & Dean
Faculty of Family and Community Sciences
The M.S. University of Baroda, Vadodara

Mobile no.: 9351309491
Email: kanishkamertiya29@gmail.com

Signature of the Respondent:

APPENDIX 4

ETHICAL CERTIFICATE

सत्यं शिवं सुन्दरम्
EST. 1949

Institutional Ethics Committee for Human Research (IECHR)

FACULTY OF FAMILY AND COMMUNITY SCIENCES
THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA

Ethical Compliance Certificate 2024-2025

This is to certify Ms. Kanishka Rathore study titled; "Digital Wellbeing in higher education: Students' Awareness, Advantages, Adversities & Actions" from Department of Extension and Communication has been approved by the Institutional Ethics Committee for Human Research (IECHR), Faculty of Family and Community Sciences, The Maharaja Sayajirao University of Baroda. The study has been allotted the ethical approval number IECHR/FCSc/M.Sc./10/2024/12.

Komal

Prof. Komal Chauhan
Member Secretary
IECHR

Prof. Mini Sheth
Chairperson
IECHR

Chair Person
IECHR
Faculty of Family & Community Sciences
The Maharaja Sayajirao University of Baroda