

Role of Digital Detox in the Misuse of Mobile Technology and Phubbing

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ABSTRACT

With the growth of technology, people, particularly students, now have easy access to a wide range of e-communication tools, which they feel closely connected to. Recent studies show that 100% of university students own mobile phones and bring them to their classes. Although a few students utilize their smartphones to support their learning, such as searching for relevant information or taking photos of the blackboard, the majority tend to use them for personal activities during class. Staying connected during lessons disrupts students' learning experiences and continues during exams, even though it is prohibited. This study seeks to examine the challenges mobile phones present in college classrooms. A survey was conducted among students from different departments to evaluate the degree to which technology acts as a significant distraction both in the classroom and during exams. The study also examined social aspects of technological connectivity, including phubbing, cheating during lessons, and students' opinions on phone regulations and instructor behaviors. The findings reveal differences between genders: male students tend to be more relaxed, while female students are more concerned about disturbing their peers. Classroom size also plays a significant role—larger classes encourage students to behave more freely and engage in phubbing unnoticed. The majority of students admit to being distracted by their classmates and confess that they use their phones to cheat.

Keywords: *Mobile phone abuse, phubbing, technological distractions, student behavior, classroom engagement, academic dishonesty, mobile phone regulations, student perceptions*

Mobile phones, often referred to as portable computers or the Swiss army knife of modern technology, have emerged as one of the most rapidly advancing communication tools in history. From nearly nonexistent in the 1990s to half a billion subscriptions (ITU, 2002), over two billion in 2005 (Wireless Intelligence, 2005), and nearly 7.5 billion worldwide by 2014 (GSMA Intelligence, 2014), mobile phones have gained immense popularity. Given their practicality and widespread use, it is surprising that there are no clear, universally accepted guidelines for their proper and polite use (Elgan, 2010; Rosenfeld & O'Connor-Petruso, 2010).

While the polite use of mobile phones remains undefined, behaviors like phubbing (phone snubbing) have become well-known. Phubbing refers to ignoring someone in a social setting

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by focusing on a phone instead of engaging with those around you. The term, coined by a campaign from McCann Melbourne and added to the Macquarie Dictionary in 2012, has gained global attention. Through this term, behaviors like students ignoring their teachers in classrooms during lessons have been given a name. Today, such rudeness is widespread across all areas of life.

The misuse of smartphones is impairing social interactions. Many adults, much like children, focus on their phones, ignoring face-to-face communication. Phubbing, as an issue, has raised global concern, appearing in almost all social settings.

However, the problem becomes more complex in educational contexts. While classrooms traditionally require a quiet, focused environment, mobile phone usage has become increasingly common among students. According to Diamanduros, Jenkins, and Downs (2007), 98% of college students own mobile phones, and 62% report using electronic media for non-academic purposes during class or study time (Jacobsen & Forste, 2011).

Research by Worthman et al. (2010) found that phone ringing can disrupt student performance during lessons. While students typically don't talk on the phone during class, the distraction caused by text messaging is more subtle yet still disruptive (Barks, Searight, & Ratwik, 2011). Texting may seem less intrusive but still distracts those around (Tindell & Bohlender, 2010). For teachers, maintaining classroom discipline and focusing students on learning becomes more challenging with mobile phone distractions. Moreover, some students use phones to cheat during exams, such as by accessing online resources, taking photos, or sending answers via text (Katz, 2005).

Not all mobile phone usage in education is detrimental. For example, Katz (2005) emphasized the benefits of mobile technology in providing tutoring, accessing educational resources, and enhancing communication among students, teachers, and parents. Mobile learning (m-learning), a type of internet-based e-learning, has also been acknowledged for its ability to facilitate learning anytime and anywhere (Mifsud, 2003), encourage collaboration in distance education (Milrad, 2003), and support disseminated intelligence (Fischer & Konomi, 2005).

Faculty opinions on mobile phone use in classrooms vary widely. Some advocate banning them, while others believe that any restrictions are overly strict (Gilroy, 2004). Many institutions have established guidelines for regulating mobile phone use in classrooms, while others remain less restrictive (Shrivastava & Shrivastava, 2014). According to a study by the National Education Association (NEA), 85% of higher education instructors in the U.S. support including mobile phone policies in their course syllabi.

Whether used for academic purposes or not, mobile phones have become so ubiquitous that it is now assumed every student owns a personal device for learning, much like they would possess pens and textbooks. This shift presents both challenges and a need for mobile phone regulation in schools, as mobile phones become the most ubiquitous technology, characterized by the 4Es: everywhere, every time, everything, and everyone (Yan, Chen, & Yu, 2013).

REVIEW OF LITERATURE AND HYPOTHESIS

The modern university classroom's evolution started with the introduction of tools like the chalkboard and the overhead projector. Over time, classrooms have integrated advanced

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technologies such as computer projectors, large screens, and whiteboards, all aimed at enhancing education. Traditionally, these tools were controlled by the instructor. However, a significant shift has occurred with the introduction of technology brought in by students, particularly electronic devices like smartphones (Bayless, Clipson, & Wilson, 2013).

Initially, cell phones in the classroom were marked by disruptive ringing, drawing attention away from instruction. Over time, ringtones evolved into music, vibrations, and ultimately text messages. Each progression brought new distractions, from vibrating phones bouncing on desks to the ability of smartphones to access the internet, enabling students to browse social media, send emails, and text during class.

While mobile phone usage in classrooms has been extensively studied, the specific behavior of "phubbing"—neglecting those around by focusing on one's phone—remains relatively underexplored. This tendency, particularly during lectures, exemplifies a form of classroom disengagement. Research by Tindell and Bohlander (2012) revealed that texting during lectures significantly disrupts students' concentration and reduces their engagement with the material being taught. Similarly, a survey conducted by McCoy (2013) across six U.S. universities involving 777 students reported an average of 10.93 daily instances of using digital devices for non-academic purposes, primarily for entertainment and maintaining social connections. Over 80% of respondents admitted that such behavior reduced their classroom engagement and caused them to miss key instructions.

Burns and Lohenry's (2010) pilot study revealed that 40% of health sciences students used phones during class, which distracted 85% of their peers. Both faculty and students agreed that this behavior disrupts learning. Campbell (2006) highlighted similar issues, with ringing phones being a major irritation for students and instructors alike, leading to calls for stricter policies. Rosen et al. (2011) found that texting during instruction negatively impacted academic performance, and Clayson and Haley (2012) showed that multitasking students mistakenly believed they could text and learn simultaneously, ultimately achieving lower grades.

Beyond distractions, smartphone use also contributes to tardiness, which disrupts the learning environment (Massimini & Peterson, 2009). Dzubak (2012) emphasized that interruptions inhibit knowledge acquisition, while studies by End et al. (2010) revealed that even a ringing phone during a presentation negatively affects retention and performance.

Synnott (2013) surveyed 129 students at a public university and found that most engaged in texting, web browsing, or social networking during class. Students also overestimated their peers' phone usage, potentially encouraging similar behavior. A more troubling issue is academic dishonesty, as mobile phones facilitate sophisticated cheating methods, such as sharing answers via text or photographing exam questions (Tindell & Bohlander, 2012; Campbell, 2005). Privacy violations, such as filming peers or instructors to post online, further highlight the misuse of phones (Kiedrowski et al., 2009).

Research on texting's impact on literacy and learning has produced mixed results. Coe and Oakhill (2011) identified a positive correlation between texting and literacy, while Drouin and Driver (2012) noted negative effects. Wei, Wang, and Klausner (2012) observed that texting partially impairs students' attention in class, and Wei and Wang (2010) suggested that multitasking habits developed in classrooms become automatic over time. However, as

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Ophir et al. (2009) pointed out, the human brain struggles to process multiple information streams simultaneously, hindering learning.

Overall, studies consistently show that excessive phone use disrupts teaching and learning. While phubbing introduces a new dimension to this issue, research on the topic is limited. To bridge this gap, a study was conducted among college students in Turkey to examine their mobile phone usage patterns, focusing on the frequency and extent of digital distractions unrelated to class activities. The survey examined phone usage before and during class, as well as during exams. Students reported on their own behavior, observed others, and reflected on the impact of texting on their focus. They were also asked to propose effective classroom phone policies. This research aims to provide insights into classroom phone usage and inform policy-making to minimize distractions.

METHODOLOGY

Research goal

This study investigates the challenges arising from mobile phone usage in college classrooms. It examines the social dimensions tied to the broader concept of technological connectivity, with a particular focus on behaviors like phubbing, cheating during lectures, and students' views on mobile phone policies and instructor conduct.

Participants and Data Collection

This study included students from a state university in Odisha, who were invited by their instructor to take part in the survey while waiting for their class to commence. The sample was stratified based on academic major, encompassing six distinct departments within the university's business school.

Stratified random sampling was chosen over other methods to explore variations in trends across subgroups within the population. This approach ensures representation of all key subgroups, allowing for detailed observation of relationships between them. Unlike simple random sampling, stratified random sampling guarantees inclusion of subjects from each subgroup, ensuring equal or proportional representation.

Furthermore, this approach was particularly effective in gathering data from smaller and less accessible subgroups, such as the departments of Management Information Systems and International Trade, which have relatively low enrollment numbers. Simple random sampling would not guarantee sufficient representation of these less common groups within the business school population.

Stratified random sampling also provides greater statistical accuracy than simple random sampling, as the variability within subgroups is usually lower than that of the overall population. This leads to smaller sample size requirements, thus saving both time and resources (Babbie, 2001).

In this research, proportionate stratified random sampling was applied to accurately represent the business school. The size of each stratum was proportional to its population size within the entire group, maintaining a consistent sampling fraction of 1/10. For instance, populations of 760, 1530, 70, 90, 900, and 140 students yielded samples of 76, 153, 7, 9, 90, and 14 students, respectively. A total of 349 students from six departments participated in this quantitative analysis.

ANALYSES AND RESULTS

A survey conducted among students from a state university in Odisha aimed to examine mobile phone usage in classrooms, focusing on behaviors such as phubbing, cheating, and perceptions of classroom regulations. A total of 349 participants, all of whom owned mobile phones capable of texting, contributed to the findings. The study revealed that mobile phones are an integral part of student life, with 99% of participants reporting daily use and 99.1% acknowledging that they always bring their phones to class. A significant majority (98%) admitted to sending or receiving messages while waiting for the class to begin. Phubbing, defined as engaging with phones during lectures, was a prevalent behavior, with at least 95% of students admitting to it, and 32% acknowledging doing so daily. Observing others phubbing was also common, with 41% of students witnessing it every day. Interestingly, first-year students and those in relationships were statistically more likely to engage in such behavior.

The majority of students kept their phones on vibrate (51.6%) or silent mode (44.4%) during class, with only a small fraction (2.3%) turning their phones off. Despite their efforts to minimize distractions, a large number admitted to being affected by phone sounds such as ringtones and button clicks. About 60% reported being distracted by such noises, and 54% had been disrupted by a ringing phone at some point. Female students were found to be more sensitive to these distractions and were more diligent in setting their phones to silent mode compared to their male counterparts. Males, on the other hand, were more likely to keep their phones on vibration mode, with this difference being statistically significant.

Students expressed that instructors were often unaware of their phone usage habits, with 84% believing that teachers would be shocked by the extent of texting in class. Larger classrooms, especially those with more than 50 students, were perceived as providing better opportunities for undetected phone use, with 83.7% feeling confident about texting unnoticed in such settings. Conversely, smaller classrooms, particularly those with fewer than 10 students, significantly reduced the likelihood of phubbing.

When asked about their motivations for using phones during class, 60% attributed it to boredom, while 14% cited emergencies, and 13% each mentioned the desire to stay online or engage in leisure activities. Although many students admitted to phubbing, they were also aware of its drawbacks. Nearly 80% of participants reported that it caused them to miss parts of the lecture, and 21% acknowledged its negative impact on their academic performance. Cheating, another concern related to phone use, was less prevalent than phubbing but still notable. While 81.9% denied cheating during exams, 7.4% admitted to texting for non-exam-related reasons. First-year students were more likely to engage in such behavior, suggesting a need for stricter monitoring in entry-level courses.

Regarding classroom regulations, 60.2% of students noted that some instructors had policies governing phone use, and opinions varied on how these should be enforced. Females tended to favor stricter measures and punitive actions to discourage phone-related distractions. However, 49% of participants preferred instructors to issue general warnings rather than single out individuals, as this approach was seen as less confrontational.

The study underscores the pervasive role of mobile phones in classrooms and their impact on student behavior and learning. Factors such as instructor characteristics, classroom size, and individual habits significantly influenced phone usage patterns. These findings highlight the need for universities in Odisha to implement well-defined policies to address mobile

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phone use effectively, ensuring a balance between technological integration and minimizing distractions for better academic outcomes.

CONCLUSION

The pervasive use of mobile phones in college classrooms has been shown to significantly impede students' ability to maintain focus, as multitasking with these devices often becomes habitual and distracting. Research highlights the complex relationship between mobile phone usage that facilitates learning and that which detracts from it. This study, building on prior research by Froese (2012), Campbell (2006), McCoy (2013), and Wei, Wang, and Klausner (2012), aimed to delve deeper into the extent of mobile phone use for non-academic purposes during class. The findings revealed a widespread preference among students for clear policies to mitigate distractions caused by mobile phones, reflecting an awareness of their disruptive potential.

The study also highlighted students' reluctance to entirely forgo mobile phones in class, even in the face of strict policies. This suggests that while students may recognize the need for regulations, they continue to engage in phubbing behaviors. Interestingly, many students seemed unaware of the impact their actions had on peers and instructors, indicating a lack of understanding regarding the broader implications of their behavior. By involving students in creating or refining mobile phone policies, institutions might increase compliance, fostering a more cooperative approach to managing distractions.

However, merely establishing a mobile phone policy is insufficient; consistent enforcement by faculty is crucial. Instructors must actively monitor and address mobile phone use, clearly communicating that disruptive behaviors like phubbing are unacceptable. The findings underscore the need for academic institutions to prioritize this issue, emphasizing the role of educators in maintaining an environment conducive to learning. Without such measures, the challenge of managing mobile phone distractions will continue to undermine the academic experience for students.

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Conflict of Interest

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