

Sacred Spaces, Digital Grid: How Madrassa Students Navigate Smartphones in Southern Khyber Pakhtunkhwa

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ABSTRACT

The intersection of digital Media Technologies and Madrassa students in the context of Khyber-Pakhtunkhwa is traditionally viewed through restrictive and top-down institutional frameworks. The blend of religious education and the encroachment of smartphones in such settings are creating a dynamic shift, influencing their educational, and social experiences. This research paper investigates the pattern and purpose of smartphone usage among the madrassa students, including the type of media accessibility and engagement.

Utilizing the Uses and Gratification theory, a survey of 540 male students, selected through multistage stratified cluster from around 12 Madrassas, in three districts of Bannu, Lakki Marwat and Karak. Further, the data analysed through SPSS 16, results allow to bypass the reductive assumptions, treating young students as passive subjects vulnerable to external digital disruptions, but are agentic beings leverage smartphones to fulfill specific psychological, social and structural need. Asking for further deep dive into comparative studies and women usage pattern in 'Madaris'.

Keywords; Smartphone Usage, Madrassa (Religious School), Talib-e-Ilm, UGT

INTRODUCTION

The influx of the communication technologies in the 21st century has rapidly changed the global digital landscape and yet still evolving. Among the varied and rapidly evolving technologies Mobil phones has been defined as the “most radiative domestic appliance ever invented” (Coghill, 2001, page. 28).

It has become the most personal, popular, and primary mode of communication worldwide, affects lives of everybody, directly or indirectly (Abramson et al,2009; Katz and Aakhus, 2002). Palen et, al. (2000) describes various reasons such as the ease of use and convenience, mobility, and safety are few of them. Human relationship prefers and favours connectivity and communication (Markham et al., 2010), whereas this technology has generated and created an all-new dimension to these relationships.

Pakistan, as a country can not escape this rapidly changing and evolving technological boom. The convergence of the traditional and new media has affected and overtaken almost every field of life presenting an interesting socio-cultural phenomenon. Education system in Pakistan mainly offers two

parallel systems of education one the traditional religious education system “Madrassa” [Islamic seminary]. Historically, it has served as the foundational pillar for the theological education and communicatee leadership running parallel to the secular educational system (Yadav & Rahman, 2018). Where the focus remains on the classical text and a deliberate insulation from mainstream digital distractions. The second, western modern [liberal] education system evolved and adopted from the British colonial legacy.

Both these systems of education are facing a profound consequence due to the proliferation affordable smartphones and cellular data crossing the physical barriers, entering the daily lives of students and educators. However, this influx and affordability is not without a tension and challenge. Within the socio-political and conservative fabric of Pakistan and more specifically of Khyber Pakhtunkhwa, smartphones adaptation within “madrassa” is caught between utility and preservation. The unprecedented reach and access smartphones provide facilitate educational and administrative ease and efficiency, i.e. accessing Islamic digital libraries; producing religious text and audio-visual material for the consumption of much wider audiences and even generating revenue.

The unrestricted and unmanaged nature of digital contents emanating from the internet through smartphones raises serious concerns among the madrassa administration regarding spiritual distraction, exposure to non-traditional values, and the potential erosion of disciplined scholarly routines (Siddiqui et al., 2022).

Consequently, the actual usage patterns—ranging from scholarly research and community outreach to personal entertainment and social media consumption—remain largely fluid and undocumented.

Human relationships thrive around communication and connectivity, and the new digital technological progress have evolved into smarter and innovative channels achieving the goal specifically, among younger generation to interact (Lenhart et al., 2010; Markham et al., 2010). Globally, the younger generation has developed youth subcultures, reshaped the use of cell phone into an information seeking tool, relaxing, and building social capital instead of a utilitarian tool (Aoki & Downes, 2003; Kim et al., 2008).

A huge body of research points towards the potential addiction to smartphones among university students globally and within Pakistan (Malik & Iqbal, 2020), on the other hand reflects that empirical research focusing on the “madrassa” in the region Khyber-Pakhtunkhwa is critically scarce.

“Madrasas” a religious school [religious seminary] in many parts of the Muslim world, serve as the primary educational institutions for many students. These schools focus on the study of the Quran, Hadith, and other Islamic sciences. The traditional curriculum of madrasas has remained largely unchanged for centuries, emphasizing religious teachings over secular subjects. Nationwide in Pakistan 17,738 registered madrassa schools under ‘Wifaq ul Madaris’ Board across the country and 5,362 madrasas are registered in Khyber-Pakhtunkhwa Province alone. The number of male students Madaris in district Bannu is 205, in Lakki Marwat, 105 and in district Karak the number is 65 (Wifaq ul Madaris Al-Arabia 2025-26; KP Home Department Central Database, 2025).

“Talib” [seeker of (Knowledge)], Talib-e-Ilm or madrassa students and Madrassa have been viewed through a different Lense i.e. political, security and counter radicalisation (Zaman & Mehmood, 2025); overlooking the socio-cultural realities, the agency and the diffusion of technological innovations and habits of the madrassa students. It all points to a very reductionist approach leaving a blind spot in academic and policy discourses, have viewed madrasas almost exclusively through political, security, or counter-radicalization lenses This reductionist approach routinely overlooks the everyday sociological

realities, agency, and technological habits of the students themselves, creating a significant blind spot in existing media sociology.

The encroachment of modern technologies into the lives of enrolled students in the traditional religious education present a unique case. The smartphones have created a dynamic shift in their lives, their educational and social experiences influencing every aspect thereafter. Besides, the concerns what media content they consume, duration spent on non educational activities, and distractions from the main focus of religious education (Sattar, 2024).

The empirical gap allows the study aims to investigate the nature and extent of smartphone usage among the madrassa students in Khyber Pakhtunkhwa, including the type of media they engage with, and it is also essential to provide insight about the purpose of use. This will also enlighten the upon better technological integration into traditional madrassa education without harming and undermining its religious foundations. Addressing this perspective within the hyper connected world will offer a nuanced perspective on digital adoption. Consequently, contributing to the broader global discourse on media sociology, and digital media literacy, acceptability or resistance within the traditional educational system in South Asia

Previous literature has highlighted the socio-emotional functions of the smartphones in the adolescents and young adults. It allows youth to establish their own identity and autonomy by interacting and communicating without parental interference (Green, 2001; Katz & Sugiyama, 2006; Ling, 2004). It provides an individual experience and personalised mechanism to relax, entertain and escape the psychological boredom or social chains (Chou & Hsiao, 2000; Park, 2005). Hence, provided and easy, secure and comfortable alternative to interact without intimidation, and confidence even with strangers (Pierce, 2009). Despite its high egalitarian nature male users tend to lean towards its technical capabilities and features like gaming and other media application (Bianchi & Phillips, 2005; Lorente, 2002). On the other side female users tend to use it for socialisation and emotional comfort, utilizing for conversations and actively nurture social networks (Fox, 2004; Ling, 2002). Along the age groups and socio culture backgrounds preferences do changes some favours texting, some voice calls, mp3 and somewhere mobile gaming (Lenhart et al., 2010).

However, the technological advances make smartphones more affordable and sophisticated, and compact integrating it more into daily life with an immense addictive problem connected with it. The demographic variables across western and South Asian set up have been cross examined from gender to educational level, but the knowledge is too scarce within the ambit of traditional and religious educational spaces. Excessive use, the quality and authenticity of the online content, information disorder, unverified ideological content leads t distraction and deviate from institutional teaching (Al-Zaman, 2020). Further, in many societies the adaptation and use of innovation is governed more by cultural dynamic of that society, creates tension to embrace innovation and resist cultural erosion (Panova et al., 2020; Ali et al., 2024). These attitudes generate ambivalence at various levels, a fear of moral risks leaves the academic value of smartphones unrecognised (Panova et al., 2020; Ali et al., 2024).

Oltra & Flor (2003) suggest that if managed structurally and proper guidance all these tools could compliment the religious learning process without compromising moral and religious integrity. Within the highly conservative and rural context of Khyber-Pakhtunkhwa madrassa students and teachers are relying on technology both for religious purposes, and entertainment (Ifikhar & Hayat, 2024). Within this context the study the unique socio cultural and religious noms, strict societal and institutional surveillance, and infrastructure limitation i.e. lack electricity, internet access, shape how madrassa students navigate between the two modern technologies and traditional religious education.

The religious framework of the educational organisation, strict institutional rules and regulations, and digital media connectivity remains unexamined. The research phenomenon raises critical concerns about how the madrassa students, primarily focused on traditional religious education with in strict conservative settings are using smartphones and analyse the pattern of usage among them. Additionally, investigating the influence of teachers, family, peers, and the broader madrasa environment on students' smartphone usage patterns. Understanding these dynamics is crucial for assessing both the positive and negative effects of media consumption in these students' lives Understanding these dynamics is crucial for educators, parents, and policymakers as they navigate the challenges of integrating modern technology into conservative educational settings without compromising religious and cultural values. The findings of this study could inform strategies to enhance educational outcomes while preserving the integrity of madrasa education in the digital age.

THEORETICAL FRAMEWORK

The research work within the context of three peripheral districts of Khyber Pakhtunkhwa to analyse the use and pattern of smartphones among the madrassa students call for a framework that effectively explain the integration of digital devices in daily lives and fulfills distinct preferences. Uses and gratification theory (UGT) formulated by Katz, Blumer, and Gurevitch (1974) provides the primary theoretical Lense. Shifting the foundational paradigm of media effects from a passive transmission-based question – “what media do to people”- to an agentic audience centric enquiry; “what people do with media”. Madrassa student has traditionally been viewed through a restrictive, top-down institutional frameworks, but this study would go beyond the reductionist assumption treating the madrassa student as passive consumer but active discerning humans with agency fulfilling specific social, psychological and structural needs.

METHODOLOGY

Employing the quantitative design for the research study was more suitable to capture the prevalence or lack of certain behaviour and attitude at certain point and time along with varied demographic information that is age, gender and or education.

Data Collection

Participants and Sampling

This cross-sectional survey examining smartphones usage and pattern among madrassa students from across three peripheral, rural southern district namely Karak, Bannu and Lakki Marwat, of Khyber-Pakhtunkhwa. Over a period of one academic year (2024-25), utilizing the multistage stratified sampling technique choosing 12 large madrassas of male students, comprising 200 hundred or more students each. A total number of 540 student on proportionate bases age between 18-27 years old participated in this survey. Interestingly, interacting with male student by an outsider could be a challenge, however researcher from same region having same language, and local connections, resolved issues of accessibility. Women madrassas in this extreme conservative setup bears immense challenges of accessibility, comprehending the gravity avoided it to come back with a new initiative as it would offer more diverse insights.

DATA ANALYSIS

Measures and Results

A questionnaire was composed of three subcategories; the one collecting demographic profiles and the second, the smartphone usage, and pattern of usage, type of usage, and the third category consisted of questions about ownership, history and preferences. The standard structured questionnaire was developed in Urdu language, more understandable in madrassa schools, later translated the answers in English for data analysis. Internal consistency was ensured through developing and distributing question among students analysed through Statistical Package for Social Sciences (SPSS 16).

Section 1: Demographic Profile

The first section of pertaining to the results captured the demographic characteristics of the participants, it is focussing on the different age groups and also talks about the time spent in the madrassa besides, duration of the education.

Table 1: Demographic Characteristics of Participants (N = 540)

Demographic Variable	Category	Percentage (%)	Number of Students (540)
District Distribution (Proportionate)	Bannu	33.3%	180
	Lakki Marwat	33.3%	180
	Karak	33.3%	180
Age Group	16 to 18 years	40.0%	216
	19 to 21 years	30.0%	162
	22 years and above	30.0%	162
Time Spent in Madrassa	1 to 3 years	43.0%	232
	4 to 6 years	35.0%	189
	7 years and more	22.0%	119

Descriptive Analysis

The total number of all-male participants in this study were 540 distributed proportionally among the districts (33.3% each): Bannu, Lakki Marwat, and Karak. The largest segment of the participants belongs to predominantly adolescent and young adult cohort age falling between the ages of 16 and 18 years old (40.0%), followed by an equal split of 30.0% each for the 19–21 and 22+ age brackets. Regarding their religious education tenure, a pluralistic majority of the students (43.0%) have been enrolled in a madrassa for 1 to 3 years, while 35.0% have a tenure of 4 to 6 years. A smaller but substantial proportion (22.0%) consists of senior students who have spent more than 7 years in the institution.

Section 2: Smartphone Ownership and Usage Patterns

This section evaluates the prevalence of smartphone ownership among the students, internet accessibility, the duration of ownership, and daily screen-time metrics.

Table 2: Smartphone Ownership and Usage Dynamics

Variable	Category	Percentage (%)	Number of Students (540)
Smartphone	Do not own a	54.6%	295

Ownership (N=540)	smartphone		
	Own a smartphone	45.4%	245
Internet Access (N=540)	No access to internet	40.0%	98
	Has access to internet	60.0%	147
Length of Ownership (n=245)	6 months to 1 year	49.0%	120
	1 to 2 years	22.4%	55
	More than 2 years	28.6%	70
Average Daily Usage (n=245)	Less than 1 hour	28.6%	70
	1 to 3 hours	42.9%	105
	4 to 6 hours	14.3%	35
	More than 6 hours	14.3%	35

Descriptive Analysis

Moreover, in this section data talks about the mobile ownership and those having smartphone along with internet accessibility. The data reveals that 54.6% (540) of the total participants do not own a smartphone, while 45.4% (540) do. Furthermore, 40.0% of the smartphone owners completely lacks internet access, due to poverty and request others while using or communicate with families.

Among the sub-sample of smartphone owners (295), nearly half (49.0%) are relatively new users, having owned their devices for between 6 months and a year, it also indicates that these were te younger lot and new entrants in the madrassa less aware of the rule and regulations. However, a combined 51.0% have owned their devices for over a year, indicating sustained exposure.

In terms of daily engagement, majority of smartphone-owning students maintain moderate usage habits, with 42.9% using their phones for 1 to 3 hours daily, and 28.6% using them for less than an hour. This pattern also indicates that strict monitoring within the madrassa and time engage in educational activities do not allow students to use it but always staying at the edge. Crucially, a significant 28.6% of owners exhibit heavy usage patterns, spending 4 or more hours on their devices every day. This pattern reveals that these are senior students, can cope the structural exigencies, moreover, are not monitored or regimented as the younger students.

Section 3: Primary Activities on Smartphones

Participants who owned smartphones were asked to identify the functions and activities they engage in, selecting multiple activities to choose from by preference.

Table 3: Activities by preference of engagement Smartphone Users (n = 245)

Activity	Percentage (%)	Number of Students (540) *
Calling / Texting	100%	540
Religious Studies (Quran apps, etc.)	42.7%	104 (rounded)
Social Media (Facebook, WhatsApp, YouTube)	37.3	91 (rounded)
News / Current Affairs	14.1%	35 (Rounded)
Gaming	5.9%	15 (rounded)

*Note: Individual student counts reflect the frequency of selection per category.

Descriptive Analysis

An analysis of smartphone utilization reveals a blend of traditional communication, modern socialization, and institutional alignment. The most common utility for the smartphone is basic communication, with 100% of users citing calling and texting as a primary activity, as they are staying away for longer periods from their families, therefore, no other means to connect but using analogue and smartphones. Interestingly, for smartphone bearing students, utilitarian religious alignment is highly prominent: 42.7% of the madrassa students actively utilize their devices for religious studies, such as accessing Quranic applications. Social media platforms (Facebook, WhatsApp & YouTube) serve as another major anchor for digital engagement at 37.3%. Entertainment-based utilities, consuming News & Current affairs videos (14.1%), playing video games (5.9%), represent smaller, secondary use cases within this specific population.

Section 4: Social and Cultural Perceptions

The final section explores the socio-cultural environment surrounding digital technology inside conservative educational contexts, mapping out authority figures' attitudes, disciplinary interventions, and perceived impacts.

Table 4: Social, Cultural, and Institutional Perceptions (n = 245)

Perception Metric	Category	Percentage (%)	Number of Students (540)
Elders/Teachers' View on Usage	Negative	45.7%	112
	Positive	28.6%	70
	Neutral	25.7%	63
Advised/Warned by Authorities	Yes	85.7%	210
	No	14.3%	35
Most Significant Perceived Impact	Better access to knowledge	42.9%	105
	Increased distractions	28.6%	70
	Better connectivity with peers	14.3%	35
	Decline in religious focus	14.3%	35

Descriptive Analysis

The cultural landscape governing smartphone adoption shows a clear friction between institutional authority and student usage. A plurality of students (45.7%) notes that their teachers and community elders view smartphone usage negatively, consider it a distraction, leading to moral digressions. The 28.6% who perceive a positive outlook from authority figures., even encourages creative production of religious digital content to counter narratives against Islam, and Madrassas. However, the strict regulatory religious aspect is more powerful, and this critical stance is concretely reinforced by active intervention, as a striking 85.7% (295) of smartphone users report having been explicitly advised or warned about their device usage by elders or teachers.

Despite these warnings and institutional reservations, the students themselves recognize both constructive and destructive outcomes. The single highest perceived impact of smartphone usage is constructive, with 42.9% stating it offers better access to knowledge. Conversely, negative impacts are collectively acknowledged by 42.9% of the users, who cite either increased distractions (28.6%) or a definitive decline in their core religious focus (14.3%). Peer connectivity was viewed as the most significant benefit by a minor 14.3% of the cohort.

CONCLUSION

New technology i.e. smartphones are now part and parcel of daily lives, and indispensable for the younger generation to connect and communicate (Kim et al, 2008). It is evident that the influx of new technology has taken over all the fields, institution and organisation, with wide and varied affects. Modern (western model) education institutions reflect its own variations in adaptation of technology and utilization, whereas “madrassa” education [Religious Seminaries] has also embraced technology in this case smartphones, but its aspects are different, compared to the western education institutions. This paper sought to obtain varied information on smartphone usage patterns among madrassa students, besides finding out the variety of purposes beyond educational needs.

Utilizing uses and gratification theory as the key framework very vividly identified the reasons behind smartphones usage and patterns within the madrassa setup, by religious school students. It also highlighted that within the closed, strict and highly conservative environment its usage is widespread and almost impossible to uproot. The findings reflect the broader trends in pattern of digital media usage among younger generation seeking content to gratify specific needs, whether personal, social or educational.

The results align and conform that cognitive friction generated by technological advances or alternative viewpoints tempt religious students to seek information, knowledge outside the prescribed boundaries. The closed system, ensuring conformity and obedience brings in emotional fatigue. The data reveals that despite the fear of punitive action- actively but secretly, use smartphones to cater to their recreational and leisure needs. Religious students’ manifest behaviour by accessing religious creative content i.e. nasheeds, Naat, religious debates etc creating an internal and personal space to express emotions and satiate aesthetic experiences. On personal level, digital tools address the complex needs of individual identity, status and credulity within Khyber Pakhtunkhwa conservation environment. This connectivity provides a space to assert as active and relevant actors. Although it is observed that this also has generated potential tool for religious and political polarization.

Religious student within the Khyber Pakhtunkhwa is from poor family and kept in cloistered environment for longer periods, away from families and peer groups. Smartphones, a personal and private tool directly fulfills social integrative need independently, even ready violating the institutional oversight. Moreover, madrassa education is highly regimented and stick to fundamentals leave little room for unmonitored leisure time. Chou & Hsiao, (2000) considers smartphones as a crucial mechanism for diversion and escape, by browsing social media, playing online games and texting, provide a transient, psychological ease from the strict and stringent academic and spiritual disciplines. The results reflects and authenticate the claims established by the conceptual framework that madrassa students as other global trends reveal, are not passive users, but actively deploy hidden smartphone habits and structural tactics to bypass the rigorous routines, obtaining “gratification” by manifesting digital autonomy, accessing secular and unmonitored social connectivity, a continuous sophisticated form of youth agency in the face of stringent closed environment and institutional authority.

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