CHILDREN, DIGITAL MEDIA & WELLBEING: A CASE STUDY OF SCHOOL-GOING CHILDREN OF SHILLONG-MEGHALAYA

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ABSTRACT

This study undertakes an exploration into the nuanced domain of children's utilization of digital technology within the geographic confines of Shillong-Meghalaya, India. It scrutinizes prevailing trends and discernible patterns within the swiftly evolving digital milieu. With a targeted focus on children aged between 6 and 14 years, corresponding to the elementary school-age cohort, the research adopts a mixed method approach, amalgamating qualitative inquiry with quantitative data analysis to break down how digital interactions can affect the psychological well-being of these young individuals. By investigating into the nuanced impacts of digital media usage on mental well-being, this research endeavors to bridge discernible lacunae in comprehending the manners in which children negotiate the digital landscape, whilst grappling with a spectrum of online opportunities and hazards. The findings will contribute valuable insights for policymakers, educators, and parents to shape effective strategies for promoting safe and beneficial digital environments for children in the evolving technological era.

Keywords: Children, Digital, Consumption, Wellbeing

Introduction

The digital landscape has witnessed a profound transformation in recent years, with the internet permeating nearly every aspect of modern life. Nowhere is this trend more pronounced than in the realm of children's engagement with digital media. India, a nation with a massive youth population, has been at the forefront of this digital revolution, witnessing a remarkable surge in online activity among its youngest citizens. As technological advancements have made digital devices more accessible and affordable, Indian children have embraced these tools with an unprecedented fervour. Smartphones, tablets, and computers have become indispensable companions, offering a gateway to a vast array of educational resources, entertainment options, and social interactions. This newfound connectivity has reshaped the traditional boundaries of childhood, enabling young minds to explore the digital world with an insatiable curiosity. However, this escalation in online engagement is not without its challenges.

The pervasive expansion of information and communication technologies into all aspects of life has a growing impact on children. Despite numerous surveys of adults becoming commonplace as matters of ICT gain political momentum, this scope does not quite cover children and youth. Rather than delving into children's perspectives directly, these surveys often rely on adult proxies, thereby neglecting nuanced insights into children's media access and utilization. Consequently, comprehensive data elucidating the media access and, notably, the utilization patterns of Generation Alpha assumes paramount importance across diverse academic and policy realms.

Childhood marks a pivotal juncture characterized by the formation of identities, the forging of novel social affiliations, and the negotiation of alternative cultural

paradigms—endeavors in which media assumes a pivotal role. The advent of digital media, with its manifold offerings, presents an enthralling frontier for scholarly exploration, particularly given its increasing integration into the fabric of children's daily lives. Recent investigations underscore the significant proportion of adolescents' temporal allocation to online pursuits. However, while theoretical discourse regarding the ramifications of digital media on children abounds, empirical research underpinning these discourses remains predominantly exploratory in nature.

In an era where digital media infiltration in the daily lives of children is pervasive, probing the subsequent implications on mental health becomes imperative. Against this backdrop, the present study endeavors to elucidate the overarching patterns correlating digital media usage with the psychological well-being of school-going children in Shillong-Meghalaya, a region where such empirical examination is scant. The pertinence of this research stems from the pivotal influence digital channels exert on the cognitive, emotional, and social spheres of the younger demographic, potentially reshaping their developmental trajectories. By synthesizing insights from disparate disciplinary domains, the study aims to interrogate the intricate interplay between digital media and various facets of children's lives, including social capital, privacy, safety, psychological well-being, and educational attainment. Addressing this subject matter within the context of Shillong in Meghalaya provides a unique lens, given its distinctive and diverse socio-cultural landscape, and may offer insights pertinent to the broader discourse on children's mental health in the digital age.

Evolution of Children's Online Activities

In the contemporary digital landscape, the evolution of children's activities online has undergone a profound metamorphosis, reflecting the inextricable intertwining of technology and everyday life. Children are increasingly engaging with digital technologies for a multitude of purposes, both within the confines of academic pursuits and the realms of leisure and entertainment. Young individuals are harnessing the power of digital devices for a plethora of activities, ranging from the consumption of television content to immersive gaming experiences, to facilitating social interactions and conducting research for scholastic endeavours.

A Pew Research Centre study reveals many parents reporting their child's smartphone use began before age 5. Similarly, Common Sense Media found 80% of parents with 5-11-year olds said their child used tablets, compared to just 35% for those under 2 years old. This early digital immersion has fuelled a surge in youth screen time - Common Sense Media documented a 17% increase among tweens and teens from 2019 to 2021, with video gaming up 9.5% for teens. Concerningly, during the pandemic's first year, 51% of parents felt their under-11 child spent excessive time on video games. As digital natives, today's children are exhibiting deepening online engagement from remarkably young ages, with implications for their development and well-being amidst skyrocketing screen exposure.

Data from the United Kingdom reveals that television sets and tablets are utilized by a majority of children. However, the advent of streaming services such as Netflix and Amazon Prime has precipitated a paradigm shift, rapidly gaining traction as the time spent engaged with traditional television sets dwindles. YouTube has emerged as the preeminent viewing platform, particularly among children aged 8 to 11 (Ofcom, 2019). Furthermore, YouTube has proven to be a popular platform among samples of young children, even surpassing the popularity of renowned gaming applications such as Temple Run Angry and Birds among pre-schoolers (Marsh et al., 2015).

The Ubiquity and Influence of Digital Technology in the Lives of Children

1. Digital devices occupy a pivotal role in the lives of children in the contemporary era. These screen-based technologies encompass smartphones, tablets, computers, gaming consoles, and even television sets (BlumRoss & Livingstone, 2016). Children around the globe currently possess a high degree of access to these digital devices, and with this increased accessibility, their usage of smart devices has naturally risen concomitantly. The omnipresence of these

devices in the lives of children renders them exceedingly influential.

2. Media have been an integral part of family life for years, with households consuming books, newspapers, magazines, comics, radio broadcasts, films, and television programming with both enthusiasm and scepticism (Luke, 1999; Marsh et al., 2005). However, since the advent of affordable and popular smartphones and tablets just over a decade ago, their usage by children has escalated manifold.

3. Insightful work by eminent scholars (Kabali et al., 2015; Radesky et al., 2015; Buckingham, 2004; Dinleyici et al., 2016; Livingstone & Bovill, 1999; Luke, 1999) has acknowledged that the interactive and mobile nature of smart devices sets them apart from and renders them more impactful than any other traditional or electronic media hitherto consumed by children.

i-kids: Younger Children and the Rise of Digital Technology

a) These transformative shifts signify that children in the present era have been exposed to digital technologies from the inception of their lives, rendering them the most frequent users of emerging online and digital services. They are "*connected*" across diverse contexts, not solely confined to the domestic environment, as children also utilize mobile technologies "*on the go,*" predominantly within educational settings.

b) Time spent online comes with the possibility of both viable risks and rewards. On one hand, children are afforded opportunities for learning, self-expression, and forging social connections. However, being online simultaneously exposes children to risks such as harmful content and cyberbullying (Livingstone et al., 2011).

The Escalation of Online Engagement

Spending time online among Indian children has reached unprecedented levels, delineating a significant shift in digital media consumption patterns. In the year 2018, a staggering 62 million children globally were initiated into the realm of the internet, constituting a remarkable 40% of the total new internet users that year. This statistic is both astounding and concerning, as it highlights the rapid pace at which children are embracing digital technologies, with two children venturing online for the first time every second. Furthermore, it is a disconcerting reality that one-third of the global internet user base consists of minors. These trends underscore the imperative necessity to meticulously observe and develop a comprehensive understanding of the ever-evolving digital media consumption patterns among children across the globe.

According to the Kids Digital Media Report (2019), a cross-sectional study design underlines that Indian children are consistently engaging with digital content across various platforms, including social media, search engines, and video-on-demand services. The analysis reveals that the global kids digital advertising market is estimated to grow over 20% yearly, with anticipated worth of approximately $1.7 billion by 2021. Moreover, the prevalence of mobile and tablet devices as preferred mediums for consuming kids' media and content is expected to prompt a subsequent increase in advertising spend directed toward these digital platforms, thus diverting expenditure from traditional non-digital channels. This insight is complemented by increasing regulatory requirements, such as COPPA (Children's Online Privacy Protection Act), which indicate a substantial expansion in the market's size and growth trajectory, affecting around 1.2 billion kids by 2025. The implications of this phenomenon are far- reaching, necessitating a thorough examination of the potential risks, benefits, and societal impacts associated with the increasing exposure of youth to the digital realm.

Digital Media Consumption Patterns

The report delineates a significant shift in children's media consumption patterns, indicating a decline in TV viewership as digital alternatives gain prominence. Over the projected period of 2018-2021, there is a projected upsurge in global kids digital advertising spend, foreseeing a substantial increase to nearly 30% share by 2021, ultimately surpassing the reach of YouTube.

Furthermore, the implementation of GDPR in Europe has catalysed a widespread understanding of compliance standards, especially apparent in its support for the burgeoning KidTech sector, signifying a pivotal transformation in the industry's landscape (PwC, 2019).

The increasing regulatory requirements and awareness of the benefits of compliance are supporting a shift in spend towards dedicated 'KidTech' players - companies that offer designated products and services aligned with the requirements of COPPA or GDPR-K and other equivalent legislation concerning children's digital privacy (Maitland, 2019). Additionally, the report identifies that kids digital advertising spend is distributed across various platforms, including kids' broadcasters, VOD platforms, search engines, and social media, indicating a diverse landscape of digital media consumption (PwC, 2019). This shift is further supported by the understanding of compliance beyond major brands, indicating a positive impact on digital media consumption patterns, affirming the evolving nature of digital engagement among children (PwC, 2019; Bunyan, 2019).

The Diversification of Digital Technologies: Transcending the Confines of the Screen

The inexorable march of digital technologies has transcended the boundaries of the screen, unveiling a panoply of novel opportunities for the young. Emerging at an unprecedented rate, advancements such as artificial intelligence, machine learning, the Internet of Things (IoT), and autonomous technologies are reshaping the digital landscape. The IoT, a paradigm wherein tagged objects possess the capacity to communicate with their kindred counterparts (Pascual- Espada et al., 2011), has become an increasingly pervasive presence in the lives of children (Hooft Graafland, 2018). Wearable fitness trackers, devices designed to alert parents to their offspring's whereabouts, and state-of-the-art baby monitors that furnish feedback on child sleeping patterns and other physiological functions, while undoubtedly ingenious, pose certain quandaries. These encompass the influence that modern devices wield over the comportment of children, as well as concerns regarding data security and the sanctity of privacy (Manches et al., 2015).

Among the evolving realm of the IoT lies the Internet of Toys, a domain wherein playthings are wirelessly tethered to other toys or databases. The ubiquity of Internet-connected toys is projected to proliferate in the forthcoming years (Mascheroni and Holloway, 2017), and with this ascendancy comes a panoply of data security and safety risks (Holloway and Green, 2016). However, the potential beneficence for children includes enjoyment, educational advantages, and the accessibility of functions such as programming and 3-Dimensional design (Holloway and Green, 2016). Autonomous technologies, possessing the faculty to function without explicit instruction, are also becoming increasingly prevalent. These enable children to interact with artificial 'peers' who appear to possess sentience, narrowing the chasm between machines and living entities (Druga et al., 2017).

Growth and Shifts in Kids' Digital Advertising Trends

According to the Kids Digital Media Report 2019 published by PwC, the global kids digital advertising market is anticipated to experience a substantial growth rate of over 20% annually, leading to an estimated market value of approximately $1.7 billion by 2021. As highlighted in the report, there is a discernible shift in advertising expenditure, with a noticeable transition towards digital platforms and a corresponding decrease in traditional channels. This shift is intrinsically tied to the escalating consumption of kids' media through various digital mediums such as desktops, mobile devices, and tablets. Moreover, the potential extension of the COPPA regulation to encompass 16-year-olds, along with the proposed legislation in countries like China and India, is expected to significantly augment the market's size and growth trajectory, signalling a notable transformation in kids' digital media consumption patterns (PwC, 2019).

Mental Health and Well-being Concerns

As technology rapidly advances, parents everywhere are getting more and more worried about how it's impacting their kids' wellbeing. You can't go online or turn on the news without hearing fears that smartphones are ruining an entire generation, or that social media is making children depressed and anxious. Even some researchers are sounding

the alarm bells. But the truth is, the effects of all this digital tech on children aren't so clear-cut. While the moral panic is understandable, the research is actually pretty mixed and inconclusive. There's evidence that using technology lets kids decompress, find supportive online communities when they need them, and stay connected with friends - all things that can actually benefit their mental health. The idea that screen time simply replaces other "better" activities is hotly debated too (Kardefelt-Winther, 2017; Gottschalk, 2019). That said, there are definitely some worrying potential downsides of kids being hooked on digital media. Things like depression, anxiety, eating disorders, negative body image, and the tragic prevalence of cyberbullying targeting vulnerable young people (Nutley & Thorell, 2022). A concerning disconnect exists between teens' online experiences and parental awareness, according to Microsoft's "Global Online Safety Survey 2023." Alarmingly, a staggering 39% of teens reported encountering hate speech in digital spaces, yet only 29% of parents acknowledged such exposure for their children. Even more disconcerting, 19% of teens faced threats of violence online, a reality recognized by a mere 11% of parents. We absolutely need in-depth research to understand the profound impacts social media may be having on youth mental wellbeing. Studies are already showing troubling links between heavy tech use and factors that can undermine kids' future mental health prospects. Clearly, we urgently need to unpack what's driving these effects and find ways to promote healthier digital habits.

What's obvious is that children today are engaging with technology in complex, multifaceted ways. We need comprehensive study of their evolving digital media consumption patterns to fully grasp what's going on. The stakes are high - the risks, benefits and societal impacts of kids' increasing immersion in the online world demand rigorous investigation. Only then can we ensure this new frontier doesn't undermine an entire generation's wellbeing and development.

The Research Gap: Despite the proliferation of research on this topic, there are still many unknowns when it comes to children and digital technologies. Despite the abundance of research on children and digital technologies, significant gaps remain in our understanding, particularly regarding younger children. Historically, most studies have focused on adolescents and teenagers, neglecting the unique experiences and impacts on children in the 6-14 age range. This study aims to fill that gap by exploring how younger children engage with technology and how it affects various aspects of their lives.

Previous research has disproportionately emphasized the negative aspects of digital technology use, such as risks and maladaptive behaviors. However, it is crucial to expand our knowledge on the different online opportunities that children can leverage, both for personal growth and educational purposes. This study seeks to provide a more balanced perspective by investigating both potential risks and benefits. Additionally, the 'digital' as a phenomenon remains understudied in the context of India's north-eastern tribal states, where people have embraced modern technologies but find little to no space in the discourse on 'digital wellbeing.' Our research findings attempt to enrich this discourse through the distinct lens of Shillong's youth population in Meghalaya. Importantly, the research will strive to link observed effect sizes to meaningful real-world outcomes for children's well-being.

Research Objective: This study attempts to understand 6-14-year-old children's digital media habits, the role parents play in enabling or preventing their children's digital media uptake, and their general perceptions about children's digital media use. The study will particularly target the 9-14-year-old cohort to focus on the effect of digital media usage on children's media experience and well-being.

The present study was carried out in the capital city of Meghalaya, Shillong, which is located in the North-East region of India. It is the headquarters of the East Khasi Hills district. The researcher has purposively selected Shillong city not only because of convenience but also because of the multi-cultural fabric of the place. Khasis, as a tribe, make up the majority of the population though the percentage of Khasi people in the city continues to fall as a result of the large number of migrants from other neighbouring states. All the other North East tribes are

represented here as well as significant numbers of Assamese, Bengali, and a bit of Nepali, Hindi-speaking people making it a fairly cosmopolitan city.

Research Design: The researchers employ mixed-method approach to conduct the study at hand. As a result, the research strongly relies on Exploratory Sequential Mixed Method (QUAL→quant approach) as developed by Creswell & Plano Clark (2018), to construct the operational framework of the research at hand. The research design is characterized by an initial qualitative phase of data collection and analysis, followed by a phase of quantitative data collection and analysis, with a final phase of integration or linking of data from the two separate strands of data. The qualitative analysis helped in identifying a wider variety of themes and how parents and children of the study sample structure their perception around digital media usage and mental wellbeing. Finding interesting quotations, classifying them with pertinent subjects, and creating broader themes are the steps in the qualitative data analysis process. In the case of the present study, the qualitative approach is used to gather initial unique insights on how children in the age group of 6-14 years consume digital media, through what plausible digital means, and how they feel about it. Furthermore, a semi-structured interview with a set of 27 children (15 female and 12 male) and their parents to identify and understand the potential concerns or risk factors related to digital media consumption that may or may not affect their mental wellbeing of children in general, and how to counter the impact of such concerns. This phase is meant to unpack various attitudes, experiences and vulnerabilities of the participants through interviews. Due to the episodic nature of these interviews, they were also subsequently documented, transcribed and ascribed with thematic categories.

The audiotapes and handwritten notes further helped to formulate the quantitative phase of the study. The insights garnered from the qualitative phase of the research proved pivotal in structuring an elaborate survey questionnaire that was distributed among the study sample of interest to further generalise the initial findings. To particularly measure the governing factors related to digital usage and mental wellbeing of the 9-14 years old cohort of the selected sample, the researchers adapted the Stirling Children's Wellbeing (SCWB) scale which has been previously used by researchers to measures emotional and psychological wellbeing in children and young people aged 8 to 15 years (Liddle & Carter, 2015). The selected scale aligns with the research objectives and context, focusing on the interplay between digital media usage and wellbeing among school-going children in Shillong, Meghalaya. The SCWB Scale, adapted to align with the research objectives, comprises of 16 statements spanning three sub- components: Positive Digital Media Experiences (6 items), Healthy Digital Media Habits (6 items), and Social Desirability Sub-Scale (2 items). Participants were instructed to rate each statement on a 5-point Likert scale, ranging from 1 (Never) to 5 (All of the time). The scale was administered to a representative sample of school-going children in Shillong, Meghalaya, with scores ranging from 16 (minimum) to 80 (maximum).

The following statements were put out as part of the questionnaire later as well which asked the participants (children between 9-14 years) to at best describe how they might have been feeling or thinking about their use of digital media *(internet, smartphones, computers, gaming etc.)* over the past couple of weeks.

***[Note:** For each one please put a tick in the box which best describes your thoughts and feelings; there are not right or wrong answers.]*

No.	Statements	Never	Not much of the time	Some of the time	Quite a lot of the time	All of the time
1	I feel good about my digital media usage	1	2	3	4	5
2	Using digital media has been fun and engaging for me	1	2	3	4	5
3	I have been able to control my digital media use easily	1	2	3	4	5
4	I feel safe and secure when using digital media	1	2	3	4	5
5	Digital media has helped me learn new things	1	2	3	4	5

6	I have been able to balance digital media use with other activities	1	2	3	4	5
7	I have been feeling calm and relaxed while using digital media	1	2	3	4	5
8	Using digital media has helped me connect with friends and family	1	2	3	4	5
9	I think digital media can help me achieve my goals	1	2	3	4	5
10	I have been open and honest about my digital media use	1	2	3	4	5
11	I feel I am skilled at using different digital media	1	2	3	4	5
12	I have been feeling good about myself after using digital media	1	2	3	4	5
13	I always share digital media content with my friends and family	1	2	3	4	5
14	Using digital media makes me cheerful	1	2	3	4	5
15	Using digital media relaxes me	1	2	3	4	5
16	I always receive digital media content from my friends and family	1	2	3	4	5

SCWBS Key

Children's wellbeing and digital media use and related Items

Wellbeing Sub-Component	Item	Related Item on the SCWBS
Positive Digital Media Experiences	1	I feel good about my digital media usage
	2	Using digital media has been fun and engaging for me
	5	Digital media has helped me learn new things
	8	Using digital media has helped me connect with friends and family
	9	I think digital media can help me achieve my goals
	12	I have been feeling good about myself after using digital media
	14	Using digital media makes me cheerful
	15	Using digital media relaxes me
Healthy Digital Media Habits	3	I have been able to control my digital media use easily
	4	I feel safe and secure when using digital media
	6	I have been able to balance digital media use with other activities
	7	I have been feeling calm and relaxed while using digital media
	10	I have been open and honest about my digital media use
	11	I feel I am skilled at using different digital media

- Each item is scored 1 to 5.
- The minimum for the scale is 16 and the maximum 80.

Social Desirability Sub-Scale and Related Items

Social Desirability	Item	Related Item on the SCWBS
	13	I always share digital media with my friends and family
	16	I always receive digital media from my friends and family

Additionally, demographic data and data points related to digital media usage, privacy and social sharing are also collected. Needless to say, the personal information of the participants in both the phases of data collection is anonymized and treated confidentially.

Sample: Students studying in different schools of Shillong constituted the universe or population of this study. Shillong has been chosen as the study area because apart from being the capital of State of Meghalaya, it is also an educational hub of north east.

NUMBER OF SCHOOLS & ENROLMENT IN MEGHALAYA (2015-16)

Category	No. of schools
Primary	950
Primary with Upper Primary	50
Pr. with Up.Pr. & sec./H.Sec.	66
Upper Primary only	125
Up. Primary with sec./H.sec.	78
TOTAL	**1269**

ENROLLMENT IN PRIMARY & UPPER PRIMARY									
East Khasi Hills District	Classes I - V			Classes VI - VIII			Classes I - VIII		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
	54485	53939	108424	19150	22240	41390	73635	76179	149814

The lists include Govt., Pvt. Aided, Pvt. Un-aided, and other types of schools combined together (**Source:** https://megeducation.gov.in/)

- **Number of Schools (Secondary) in East Khasi Hills District:** 235
- **Number of Higher Secondary Schools in East Khasi Hills District:** 44

LIST OF SELECTED SCHOOLS AND NUMBER OF STUDENTS FOR THE STUDY

Sl. No	Name of the School	Management	Location	No. of Students
1	Brookside Adventist Higher Secondary School	Pvt. Aided	Nongrimbah	28
2	St. Edmunds Higher Secondary School	Pvt. Aided	Laitumkhrah	79
3	Gorkha Pathsala Higher Secondary School	Deficit	Upper Mawprem, Garikhana	90
4	St. Margaret Higher Secondary School	Pvt. Aided	Upland Road, Nongkynrih, Laitumkhrah	88
5	St. Anthony's Higher Secondary School	Pvt. Aided	Don Bosco Square, Laitumkhrah	77
6	K.V Upper Shillong Higher Secondary School	Central Govt.	Eastern Air Command, Upper Shillong	87
7	Nongthymmai Nepali Higher Secondary School	Deficit	Jingkieng, Nongthymmai	30
			TOTAL	**479**

The universal population size 1,49,814 was achieved after calculating the students' enrolment in classes one to eight. It was not possible to study all school going children in Shillong completely. In this regard, using the Raosoft sample size formula and a confidence level of
95%, it is recommended that we derive a minimum sample of at least 384 students. However, to avoid sampling error for the quantitative survey, the researchers went for a bigger number and taken 479 school students [Girls(n) = 255, Boys(n) = 224] as sample size studying in different schools of Shillong.

Findings and Analysis

The qualitative content gathered from the in-depth interviews with the parents can be largely thematised as the following types of risk and opportunities:

1. **Content-Related Opportunities and Risks:** On the opportunities side, many parents mentioned how useful the internet can be for their kids to access educational resources. As one parent said, "*My 10-year-old daughter often uses YouTube to find tutorials and explanations for concepts she's learning in school that help the lessons click. I like watching history videos with her, I feel like I am bonding with my daughter while revising her syllabus.*"

Another risk that one of the parents identified is the possibility of kids being able to discreetly seek out advice on personal or health issues that they may not feel comfortable discussing with parents. A parent shared, "My 14-year-old son has gone online to get information about personal hygiene and puberty stuff that he wasn't wanting to talk to me about. I am not sure if that is a risk or opportunity, but I personally do not feel okay about it. I know Internet is a great tool, but it is full of garbage information as well"

Seven out of eighteen parents who participated in the interviews were of the opinion that the "content risks" seem more significant than the "content opportunities". Practically most of the parents expressed

concerns about their children potentially being exposed to inappropriate content like inappropriate language and sexualised visuals, political violence, or hate speech. A worried mother admitted, "*I'm just not always sure what my little ones are stumbling across online. Social Media is something that worries me a lot. YouTube also has very inappropriate content, you know, right? Besides, kids have easy access to devices, be it my phone or my brother's phone or one of their friend's tablet or whatever, not every device is customised and personalised to ensure safe and limited browsing for kids.*"

Many also pointed out the pesky issue of advertising, spam and embedded marketing that kids can encounter. As one parent put it, "*It's like every other website is just trying to sell my kid something. A few days back, she (his daughter) showed me a cosplay dress form an anime she likes, and I found the display model wearing it and posing in a very sexual manner. She wanted to buy that dress. Can you believe it?*"

2. Contact-Related Opportunities and Risks: On the opportunities side, parents appreciated how technologies allow their kids to connect with others who share niche interests. A parent said, "*My 14-year old son has made online friends from around the world who are into Korean culture, Lo-fi music and open-world video games as him. It's been great for his social skills.*"

Some also saw value in kids being able to share experiences, ideas and participate in joint activities online with others. As one parent noted, "*My daughter and her friends will hop online after school to do their homework together over video chat. It is something that started with COVID and it has been like that ever since. They also play this guess-the-word game 'Outburst' also, even I also play with them at times.*"

But the risks surrounding online contact were a major worry for parents. Cyberbullying, harassment and stalking were high on the list of concerns. As one parent shared tearfully, "*My daughter was bullied so terribly by some awful kids from a private school over social media. They made memes of her and wrote problematic things commenting on her facial hair and joined eyebrows. They later apologised but I still think about those days when my daughter would not even want to go to school.*"

Online grooming, where predators try to build relationships with kids for sexual abuse, was also a grave fear. Many cited privacy violations and misuse of children's personal data as other serious risks. A parent said, "*I don't think anybody should put any kind of private information about their kids online, or even photographs out there on social media. You never know the intentions of the people online, whether they are even real or not. Also, I often hear about our data being sold or used without our consent.*"

***3.* Conduct-Related Opportunities and Risks:** Some parents did see opportunities for civic engagement, self-directed learning, creativity and self-expression through online platforms. One parent described, "*My daughter has gotten really involved in some environmental activism online, which has sparked her passion for sustainability. She now regularly posts content for her School's Instagram page, also has an Instagram account of here own where she posts about the natural beauty of Meghalaya, and also shares her poetry and paintings with others online.*"

However, parents overwhelmingly focused on the risks of kids potentially engaging in or enabling harmful conduct online. A major concern was illegal activities like piracy or hacking, as one parent confessed, "*I know my son downloads PC games illegally, and he also knows how to download paid applications for free on android phones. He does not have a smartphone but he uses his mother's phone. My wife can hardly keep an eye on him, he is too smart for us anyway. Once, we had to shut the phone down really quick because the phone got hanged and there was a warning message saying our IP address is exposed to potentially harmful actors. Good that my wife does not do internet banking on her phone.*"

Cyberbullying again came up, with parents worrying about their kids harassing others or creating/uploading hurtful content. As one parent lamented, "*The things kids are capable of saying and doing to each other online without thinking is just appalling sometimes. My son showed me an entire thread of abusive diatribe between his best friend and another one of his classmates over a silly game hack or something. The kid had posted a video explaining that hack and got abused for being a rookie or noob in that game. Even my son was harassed by known and unknown individuals on that video thread.*"

Perhaps most alarmingly, some parents raised fears about kids providing advice that could inspire extreme behaviors like suicide or eating disorders. A parent recounted, "*I don't know what kind of websites my daughter was on, or what kind of information she was going through but a few months back she started skipping her meals saying it is a form of dieting that would help her to lose weight. It was hard to communicate with her then, she was very aspirational. Later my sister-in-law explained me the clinical dimensions of this condition. That's when I realised that my daughter was in real trouble. I was not even aware of such a thing that Internet could do to our kids.*"

From the above thematic categories, it is clear parents see a real mix of valuable opportunities but also a potential cyber-minefield of dangers - underlining how crucial it is that kids learn to navigate this digital world safely and responsibly. Additionally, after surveying 479 school-going students [Girls(n) = 255, Boys(n) = 224] across seven schools in Shillong, Meghalaya, as part of the quantitative phase of the MMR study, the researchers uncovered the following statistics about children's digital media usage:

1. For the youngest bracket of 6-8-year olds in our sample, 22% already own their own tablets. While only 8% have their own personal smartphones yet, 83% are watching content for an average of 13.5 hours per week - practically 2 hours per day on smartphones. 42% are also going online for around 9.5 hours weekly, which averages out to over 1.5 hours of internet use daily for kids under 9 years. Very few at 6% have social media accounts, but a concerning 62% are gaming for 6.5 hours per week on average.
2. As we look at the 9 to 11-year-old cohort, smartphone ownership jumps up to 31% and 27% have tablets. Online engagement remains high at 88% watching content 13 hours weekly, while 78% are online for nearly 13.5 hours - essentially 2 full hours per day. It is also worth noting that 22% kids in this cohort have social media profiles too. Gaming is absolutely massive, with 71% playing for an average of 10 hours per week. However, our data shows that 8% of these 9 to 11-year olds who own mobile devices are allowed to use them right up until bedtime.
3. The preteens and young teens from 12-14 years paint an even more troubling picture of digital saturation. A whopping 52% have their own smartphones now, and 96% are online for over 20 hours per week on average - translating to almost 3 hours of internet use per day. 57% are active on social media too. While media content consumption has dropped slightly to 84% watching 13.5 hours, gaming remains popular at 72% playing for 13 hours weekly. 78% of this oldest age group who own devices are allowed to use them right up until bedtime, and 16% get to bring them into bed at night.
4. A closer look at the data reveals some notable differences in digital media usage patterns between boys and girls. For the youngest 6-8-year-old bracket, more boys (23%) already own smartphones compared to girls (11%). However, a higher percentage of girls (87%) spend 13.5 hours weekly consuming content on smartphones versus 59% of boys. Internet usage is also higher among young girls, with 48% going online for 9.5 hours per week against just 32% of boys.
5. The gender divide persists as they enter the 9-11 age group. While smartphone ownership is comparable at 32% for boys and 30% for girls, more girls (28%) have tablets compared to only 21% of boys. Social media usage shows a stark split too - 27% of girls have accounts versus just 17% of boys. Gaming exhibits the opposite trend, 81% of boys playing 10 hours weekly versus only 42% of girls.
6. Among 12 to 14-year olds, 59% of girls own smartphones contrasted with 46% of boys. A staggering 93% of teenage girls use the internet over 20 hours per week, higher than the 81% of boys. Surprisingly, more boys (77%) are on social media compared to girls (71%) in this cohort. Gaming remains a male-dominated arena with 81% of boys spending 13 hours weekly on it against 53% of girls.

What emerges is a nuanced picture where digital device ownership patterns differ by gender from a young age. While girls lead in

content consumption and internet use, teenage boys display a stronger proclivity for gaming and social media usage. As one concerned parent notes, "*It's almost like boys and girls are living in separate digital worlds these days.*" Tailoring guidance to the unique habits of each gender may be key for families navigating this technological landscape. What's clear is that while digital saturation impacts all youngsters today, the trends and habits tend to differ by gender from a very young age. Understanding these nuances is critical for parents and educators to develop more tailored approaches that resonate with both boys' and girls' technology use patterns.

Additionally, the study also found that 29% of survey respondents (6-14 years old) prefer face- to-face communication. Instead, WhatsApp reigns supreme as the favoured communication app among this demographic, after Instagram and Snapchat. These applications are often accessed via shared parental smartphones, with mothers' devices being the most frequently borrowed. Alarmingly, in the 9 to 14-year old demographic, 56% enable location services, and a concerning 42% are open to meeting online acquaintances in person, highlighting the potential real-wold risks of oversharing. Furthermore, 24% readily divulge email addresses on social media platforms. While WhatsApp and YouTube dominate as the most used online platforms (81%), concerning behaviours persist, with 16% experiencing stalking on chat rooms or messengers and 29% grappling with cyberbullying or harassment. Encouragingly, 68% of teens demonstrate awareness of privacy settings, though 21% remain unaware, and 11% dismiss the need entirely. The results of the SCWB Scale (administered to children between 9-14 years) are compiled under the following three sub-components:

- **Positive Digital Media Experiences:** The data revealed that a substantial proportion of participants (44%) reported high levels of positive digital media experiences, with scores of 48 or above. These children indicated that digital media usage was enjoyable, engaging, and facilitated learning new skills. Notably, 27% of respondents strongly agreed that using digital media has helped them connect with friends and family (item 8), underscoring the social benefits of digital platforms. A sizeable contingent (29%) scored below 32, indicating potential areas for improvement in self-regulation and balance.
- **Healthy Digital Media Habits:** Concerningly, only 31% of participants exhibited moderate healthy digital media habits, with scores between 32-47. A sizeable contingent (37%) scored below 32, indicating potential areas for improvement. Alarmingly, 22% of children reported rarely or never "*feeling safe and secure when using digital media*" (item 4), highlighting critical concerns regarding online safety and the need for enhanced protective measures. Responses to the statement "*I have been able to balance digital media use with other activities*" (item 6) were varied, with a mean score of 3.2, suggesting that many children struggle to maintain a healthy equilibrium between digital engagements and other aspects of their lives.
- **Social Desirability Sub-Scale:** The Social Desirability Sub-Scale yielded intriguing insights. While 38% of children claimed to "*always share digital media content with friends and family*" (item 13), a mere 14% reported "*always receiving digital media content from friends and family*" (item 16). This discrepancy may suggest a propensity for socially desirable responding or a potential disconnect in digital media sharing dynamics among peer groups.

Discussion

The findings underscore the complex interplay between digital media consumption and children's wellbeing. The research findings suggest that a significant proportion of participants reported positive digital media experiences, facilitating enjoyment, learning, and social connectivity, concerns persist regarding the development of healthy digital habits and online safety practices. The findings underscore the need for a balanced approach that harnesses the benefits of digital media while mitigating potential risks to children's mental health and overall wellbeing. While the current study did not directly measure cyberbullying, online harassment, internet addiction, or abusive online behaviours, the results offer concerning

implications warranting further investigation. The finding that 22% of children rarely or never felt safe and secure when using digital media raises red flags about potential exposure to harmful online experiences. This lack of perceived safety could stem from cyberbullying victimization, encountering explicit or age-inappropriate content, or other abusive behaviours perpetrated through digital platforms.

Additionally, the 37% of participants exhibiting lower scores on the Healthy Digital Media Habits subscale may be at heightened risk of developing compulsive internet usage or addictive technological behaviours. Such dysfunctional patterns increase vulnerability to cyber-abuse and diminish self-regulatory abilities to disengage from toxic online environments. Furthermore, the discrepancies observed in the Social Desirability Sub-Scale intimate potential undercurrents of peer pressure, social hierarchies, and power dynamics within children's digital interactions - characteristics that cyberbullies notoriously exploit. While further dedicated research is needed, these findings raise alarms about the dark side of digital media exposure among Shillong's youth. Targeted interventions promoting digital literacy, ethical online conduct, and robust reporting/safety mechanisms are imperative to safeguard children's mental health and shield them from cyber-harms.

From the in-depth interviews, it is clear that parents are really troubled by how much time their young children spend fixated on screens nowadays. It's not a straightforward problem to address, but they believe some crucial actions need to be taken. Parents believe policymakers ought to tackle the social media issue head-on to shield young people from potential dangers. They should demand open, impartial evaluations of how products aimed at young users truly affect them. Parents believe that the major tech companies and the government must collaborate closely and share information on how platforms like social media are affecting kids' mental health and well-being and that the data should be made accessible to independent experts for proper analysis, as well as to parents themselves. While privacy is important, these parents feel it should not take precedence over their children's welfare. At the end of the day, parents simply want to ensure their children can navigate this technology-driven world without it damaging their mental health and development. It's an issue that weighs heavily on the minds of parents everywhere.

Conclusion

This study contributes to the growing body of literature on the impact of digital media on children's wellbeing. By quantifying the experiences and perceptions of school-going children in Shillong, Meghalaya, the research provides valuable insights for policymakers, educators, and mental health professionals. Continued efforts are warranted to harness the benefits of digital media while safeguarding the mental health and wellbeing of vulnerable young populations.

Continued research is necessary to further elucidate the nuanced relationships between digital media consumption, wellbeing, and mental health across diverse sociocultural contexts. Longitudinal studies tracking the long-term impacts of digital media exposure on children's psychosocial development would be particularly insightful. Establishing a unified research approach with consistent definitions and metrics for assessing social media's mental health impacts across all sectors is vital to understanding the wide-ranging ways it shapes children's well-being, parents argue. These recommendations underscore how crucial it is to keep investigating the ramifications of the online world for kids and teens. But they also outline tangible steps for those in power to finally make the digital realm a safer, healthier space for young ones. Simultaneously, far more funding is urgently required for comprehensive research into both the positive and negative impacts of social media, video games, and similar technologies on how children, teenagers, and families develop and grow.

To conclude, this study serves as a clarion call for a mindful and evidence-based approach to digital media integration in children's lives, ensuring that technological advancements are harnessed responsibly and ethically, fostering a society where young minds can thrive in both virtual and physical realms.

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