Digital Divide: Comparing the Impact of Mobile Phone Usage on Generation Y and Generation Z

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Abstract:

This study investigates the distinct effects of mobile phone usage on the Y (Millennials) and Z (Zoomers) generational cohorts, focussing on the social, psychological, and cognitive consequences. This study uses a mixed-methods approach, including surveys, interviews, and a literature review, to investigate how mobile phones affect communication habits, mental health, academic achievement, and social relationships across different generations. The findings show that, while both generations are heavily involved with mobile technology, Generation Z (Zoomers) rely more on mobile devices, which has a higher impact on attention span and social anxiety. Generation Y (Millennials), having spent their early years without mobile phones, has a more balanced integration of mobile technology into their lives.

Keywords: Mobile phone, Y generation, Z generation

Introduction:

Mobile phones have become ubiquitous in modern society, with individuals of all ages relying on them for communication, entertainment, and information. The widespread adoption of mobile technology has led to significant changes in social interactions, work patterns, and personal habits. The increasing functionality and connectivity of smartphones have transformed them into essential tools for daily life, blurring the lines between the personal and professional spheres.

In recent years, the impact of mobile phone usage on individuals and society has been a topic of interest to researchers, particularly as the use of these devices has become increasingly widespread.

Generation Y or Millennials are born between the early 1980s and the middle of the 1990s. This generation experienced tremendous societal turmoil and a period of fast technological growth. Millennials are sometimes called "digital natives" because they were the first generation to experience broad access to the internet and digital technology while growing up. (Resources, 2012) This Generation is regarded as one of the most multicultural generations and embraces inclusion. They have been exposed to many perspectives because of the internet and rising international ties. Millennials prioritize flexibility in the workplace and place a high value on work-life balance (Rozlan & Subramaniam, 2020).

Economically, Generation Y has faced challenges such as student debt and a challenging job market, leading many to delay traditional milestones like homeownership and marriage (Eckleberry-Hunt & Tucciarone, 2011). Despite these hurdles, Millennials are known for their entrepreneurial spirit, with many leveraging technology to create new businesses and work opportunities. They are also more likely than previous generations to advocate for social justice, environmental sustainability, and diversity.

Generation Z, also known as Gen Z or the i-Generation, refers to the demographic cohort born between the mid-1990s and the early 2010s. They are the youngest generation currently entering adulthood. Like

Millennials, Generation Z is also comprised of digital natives. They have grown up with smartphones, social media, and constant connectivity. They are proficient in using various digital platforms and have high-tech fluency (Fonseka, 2024). Gen Z is known for its strong embrace of diversity and inclusion. They are more likely to challenge traditional societal norms and advocate for equal rights for all individuals, regardless of race, gender, or sexual orientation (Erlacher & White, 2022).

This generation witnessed economic uncertainty, global conflicts, and environmental challenges at a young age. As a result, they tend to be more pragmatic and realistic in their outlook. They prioritize financial stability and value practical skills (*News and Blog Articles*, n.d.). Generation Z shows a growing interest in entrepreneurship. They are highly self-motivated, independent, and eager to create their opportunities. Many are drawn to side hustles, freelancing, and building personal brands. Gen Z has witnessed the rise of social media influencers and has become adept at curating their online presence. They value authenticity and are drawn to influencers who can connect with them on a personal level.

While these attributes typically apply to each generation, it's important to remember that there are individual variances within each cohort and that not everyone in a given generation will display all of these characteristics. The comprehensive awareness of patterns and tendencies seen among people born in particular eras is provided by generational characteristics.

Previous studies have explored the effects of mobile phone usage on various aspects of human behavior, including social interactions, mental health, and cognitive function. Despite the wealth of research on mobile phone usage, there is still a lack of understanding of the specific effects of these devices on different generations, particularly the y- and z-generations.

Rationale: The Y and Z generations are the first to grow in a world where mobile phones are pervasive, and it is important to understand how this technology impacts their development and behavior.

Research Question: What are the effects of mobile phone usage on Y and Z generations and how do these effects differ between these two generations?

Aim/Objective: This study aimed to investigate the effects of mobile phone usage on the Y and Z generations and identify any differences in these effects between the two generations.

Hypothesis: It is hypothesized that mobile phone usage will have different effects on the Y and Z generations, with the Z generation being more heavily impacted by this technology because of its greater reliance on it for communication and information.

Methodology:

This study employed an online survey to gather data on the effects of mobile phone usage among Generation Y and Generation Z. The survey was conducted using a questionnaire designed through Google Forms. The snowball sampling technique was utilized to reach a broad and diverse population. Initially, participants were invited to complete the survey via a direct message, and they were encouraged to share the survey link with their family and friends through platforms such as WhatsApp, Twitter, Email, and Facebook.

The participants were informed that their responses to questionnaires would be kept anonymous and confidential, and the collected data would be used for academic research only.

The data collection period was from May 25, 2024, to August 25, 2024. The target demographic consisted of individuals born between 1980 and 2005 representing Generation Y and Generation Z, from various regions across India. The survey collected demographic information, including age, gender, location, and educational background, as well as personal details related to mobile phone usage patterns and preferences.

The methodology aimed to capture a comprehensive understanding of mobile phone usage among the specified generational cohorts, ensuring a diverse sample reflective of different social and regional backgrounds within India.
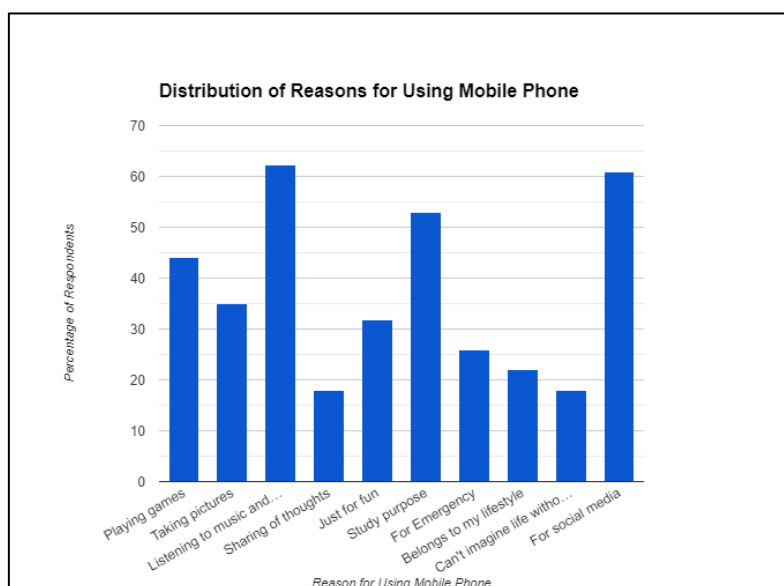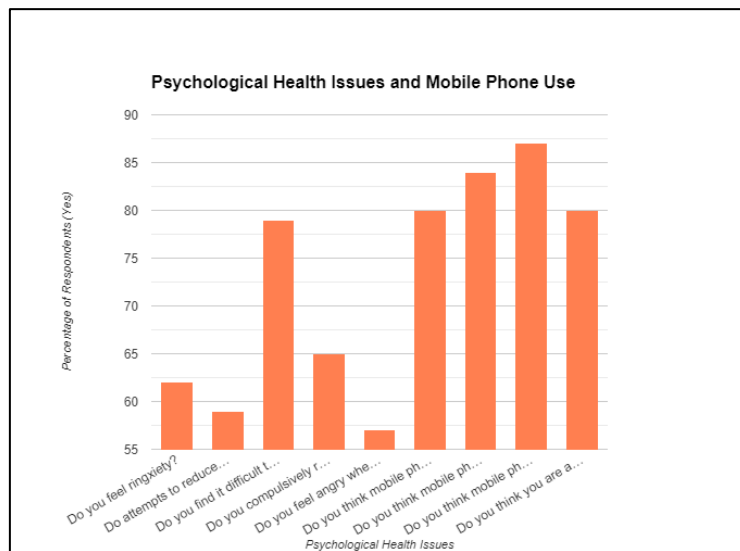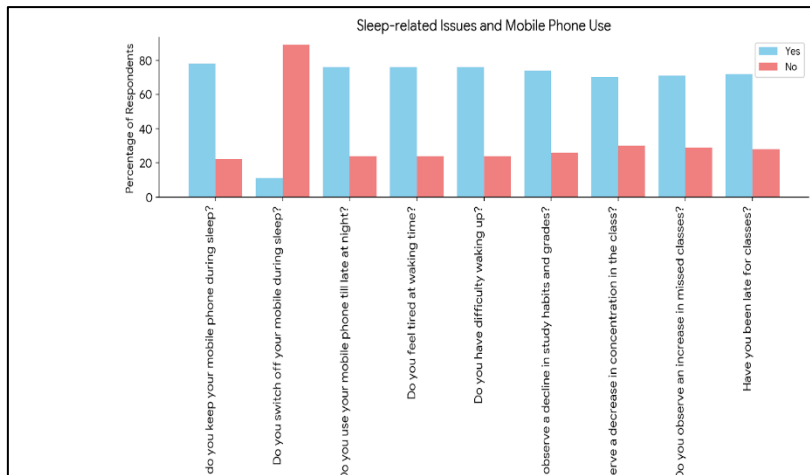
Result Analysis:

Sample size: 500

Age group	
1981-1996 (Y-generation) (18 - 43 yrs.)	54 % (270)
1997-2012 (Z-generation) (12 - 17 yrs.)	46 % (230)
Academic Status	
Secondary School	2.8 % (14)
Júnior College	35.6 % (178)
Degree College	47.2 % (236)
Other	14.4 % (72)
Socio-economic status	
High	6 % (30)
Medium	83.4 % (417)
Low	10.6 % (53)
Do you have your mobile phone with an internet facility?	
Yes	99.2 % (495)
No	0.8 % (5)
What is your monthly expenditure on mobile phones?	
Less than Rs. 500	44.4 % (222)
More than Rs. 500	55.6 % (278)
Total time spent on mobile phone per day?	
Less than 3 hrs.	26.4 % (132)
More than 3 hrs.	73.6 % (368)
Time of maximum use	
Morning	3.8 % (19)
Afternoon	16.2 % (81)
Evening	22.4 % (112)
Night	57.6 % (288)
Reason for using mobile phone	
Playing games	44 % (220)
Taking pictures	35 % (175)
Listening to music and watching videos	62.2 % (311)
Sharing of thoughts	18 % (90)
Just for fun	31.8 % (159)
Study purpose	53 % (265)
For Emergency	26 % (130)
Belongs to my lifestyle	22 % (110)
Cant imagine life without a phone	18 % (90)

For social media	61 % (305)	
Average time spent per day on...	More than 3 hrs.	Less than 3 hrs.
Calls	10 % (50)	90 % (450)
Games	30 % (150)	70 % (350)
Music and videos	54.2 % (271)	45.8 % (229)
Social media	61 % (305)	39 % (195)
Study purpose	17.4 % (87)	82.6 % (413)
Sleep-related issues		
Where do you keep your mobile phone during sleep?		
at bed	78 % (390)	
at the table near the bed	22 % (110)	
Do you switch off your mobile during sleep?		
Yes	11 % (55)	
No	89 % (445)	
Do you use your mobile phone till late at night?		
Yes	76 % (380)	
No	24 % (120)	
Do you feel tired at waking time?		
Yes	76 % (380)	
No	24 % (120)	
Do you have difficulty waking up?		
Yes	76 % (380)	
No	24 % (120)	
Do you observe a decline in study habits and grades?		
Yes	74 % (370)	
No	26 % (130)	
Do you observe a decrease in concentration in the class?		
Yes	70 % (350)	
No	30 % (150)	
Do you observe an increase in missed classes?		
Yes	71 % (355)	
No	29 % (145)	
Have you been late for classes?		
Yes	72 % (360)	
No	28 % (140)	
Psychological health-related issues		
Do you feel ringxiety(feeling of mistakenly thinking that you can hear your mobile phone ringing)?		
Yes	62 % (310)	
No	38 % (190)	
Do your attempts to reduce cell phone use make you upset?		
Yes	59 % (295)	

No	41 % (205)
Do you find it challenging to keep track of time when you use your phone for SMS, games, music, etc.?	
Yes	79 % (395)
No	21 % (105)
Do you compulsively respond to calls, SMS at places where it is dangerous to do so(crossing road, driving, working at machines)?	
Yes	65 % (325)
No	35 % (175)
If someone tells you to use your phone less, do you feel angry or shout at them?	
Yes	57 % (285)
No	43 % (215)
Do you think that mobile phone is responsible for ecosystem disturbances?	
Yes	80 % (400)
No	20 % (100)
Do you think mobile phones are responsible for health and cardiac problems?	
Yes	84 % (420)
No	16 % (80)
Do you think that mobile phone is responsible for psychological issues, and family relation disturbances?	
Yes	87 % (435)
No	13 % (65)
Do you think that you are addicted to mobile phone use?	
Yes	80 % (400)
No	20 % (100)

Distribution of Reasons for Using Mobile Phone

Sleep-related Issues and Mobile Phone Use

Psychological Health Issues and Mobile Phone Use

Discussion:

The collected data comprehensively analyzes the relationship between mobile phone usage and its impact on various aspects of life, particularly among young people

Most respondents belong to the Y-generation (18-43 years old), followed by the Z-generation (12-17 years old). Most respondents have a medium socio-economic status

A high percentage of respondents have mobile phones with internet facilities. Monthly expenditure on mobile phones is relatively high, with more than half spending over Rs. 500. Respondents spend a significant amount of time on their mobile phones daily, with the majority using them for more than 3 hours. The most common reasons for using mobile phones are playing games, taking pictures, listening to music watching videos, and studying. Social media is the most frequently used application.

A significant portion of respondents experience sleep-related issues due to excessive mobile phone usage. Many respondents struggle to wake up and observe a decline in study habits, concentration, and class attendance.

Using a mobile phone until late at night can have several effects on an individual's well-being and overall health. Here are some potential effects:

1. Sleep Pattern Disruption: Melatonin, a hormone that controls sleep, can't be produced as a result of the blue light that mobile phones generate. Excessive exposure to blue light before bed can disrupt sleep

patterns, making it harder to fall asleep and potentially leading to insomnia or poor-quality sleep (Jniene et al., 2019).

2. Reduced Sleep Duration: Engaging with a mobile phone late at night can lead to an extended use of screen time, resulting in individuals staying awake longer than intended. This can lead to a reduction in overall sleep duration, which can have negative impacts on cognitive functioning, mood, and overall productivity (Hong et al., 2020).

3. Delayed Sleep Onset: The stimulating nature of mobile phone activities, such as social media browsing, gaming, or watching videos, can engage the brain and make it harder to transition into sleep. This can result in delayed sleep onset, where individuals struggle to fall asleep at their desired bedtime.

4. Poor Sleep Quality: Even if an individual manages to fall asleep after using a mobile phone, the quality of their sleep may be compromised. Late-night mobile phone use can lead to more fragmented and shallow sleep, reducing the amount of restorative deep sleep and REM sleep experienced during the night.

5. Fatigue and Daytime Sleepiness: Inadequate or poor-quality sleep brought on by late-night mobile phone use might contribute to increased daily tiredness and exhaustion. This can impact cognitive performance, attention span, memory, and overall productivity throughout the day.

6. Negative Impact on Mental Health: Frequent use of mobile phones late at night, especially engaging in activities like social media, can lead to comparison, anxiety, and feelings of inadequacy. Exposure to stimulating content or distressing news can also contribute to heightened stress levels and negatively impact mental well-being.

A large number of respondents exhibit symptoms of ringxiety, feel upset when trying to reduce phone use and find it difficult to manage time while using their phones. Many respondents compulsively respond to calls and messages even in dangerous situations. A significant portion of respondents feel angry or shout at others when told to use their phones less.

Excessive mobile phone use can have a significant impact on psychological health. Here are some of the common psychological issues associated with excessive phone usage:

1. Anxiety and Stress

- **Fear of Missing Out (FOMO):** The constant stream of updates and notifications can create a sense of urgency and anxiety about missing out on important information or social events.
- **Digital Detox Anxiety:** Experiencing anxiety or withdrawal symptoms when unable to access a phone.
- **Increased Stress Levels:** The constant stimulation from phones can contribute to heightened stress and anxiety.

2. Depression and Loneliness

- **Social Comparison:** Comparing oneself to others on social media can lead to feelings of inadequacy and low self-esteem.
- **Isolation:** Excessive phone use can replace face-to-face interactions, leading to feelings of loneliness and isolation.
- **Sleep Disturbances:** The blue light emitted from screens can interfere with sleep, leading to fatigue and mood disorders.

3. Attention Deficit Hyperactivity Disorder (ADHD)-Like Symptoms

- **Difficulty Concentrating:** Constant interruptions from notifications can make it difficult to focus on

tasks.

- **Impulsivity:** The immediate gratification provided by phones can lead to impulsive behavior.

4. Nomophobia

- **Fear of Being Without a Mobile Phone:** This condition involves excessive anxiety about not having access to a mobile phone.

5. Addiction

- **Compulsive Use:** Excessive phone use can become addictive, leading to withdrawal symptoms when the phone is unavailable.

The mining of minerals and metals used in mobile phones can lead to habitat destruction, pollution, and human rights abuses. The manufacturing process can generate hazardous waste and contribute to air and water pollution. Improper disposal of old mobile phones can lead to contamination of soil and water with toxic substances.

There is ongoing debate about the potential health risks associated with exposure to electromagnetic radiation emitted by mobile phones. While studies have not conclusively linked mobile phone use to serious health problems like cancer, some research has suggested potential associations with headaches, sleep disturbances, and fertility issues.

Prolonged screen time can lead to eye strain, headaches, and dry eyes. Using mobile phones while driving or engaging in other activities can increase the risk of accidents and injuries.

Conclusion:

While Generation Y is older than Generation Z, they are not technologically behind them. Generation Y, born between 1981 and 1996, were early adopters of technology and have been integrating it into their lives for a significant period. They have witnessed the evolution of technology and have adapted to its rapid advancements. Generation Z, born after 1996, on the other hand, has grown up in a world where technology is deeply ingrained. They are digital natives, comfortable with navigating and utilizing various technological platforms from a young age. Despite their age difference, both generations have embraced technology in their own unique ways, demonstrating their adaptability and willingness to learn and evolve in the digital age.

Respondents overwhelmingly believe that mobile phones are responsible for ecosystem disturbances, health problems, and psychological issues.

In conclusion, while mobile phones have become an integral part of modern life, their production, use, and disposal can have negative impacts on ecosystems, human health, and psychological well-being. It is important to use mobile phones responsibly and be aware of the potential risks associated with their use.

A large majority of respondents consider themselves addicted to their mobile phones.

Overall, excessive mobile phone usage hurts young people's lives, affecting their physical health, mental well-being, academic performance, and social interactions.

Recommendations:

- **Awareness campaigns:** Promote awareness of the potential negative consequences of excessive mobile phone usage.
- **Digital literacy programs:** Educate young people about responsible mobile phone use and digital well-being.
- **Parental guidance:** Encourage parents to monitor and guide their children's mobile phone usage.

- **School policies:** Implement policies to limit mobile phone use during school hours and promote digital detox.
- **Technology development:** Develop features and applications that promote healthy mobile phone usage habits.

To mitigate the negative effects of using mobile phones until late at night, it is recommended to establish a regular sleep schedule, implement a digital curfew by setting aside a specific time to stop using electronic devices and create a sleep-friendly environment by dimming the lights and avoiding stimulating activities before bed.

To mitigate these risks, it's important to:

- **Set limits:** Establish boundaries for phone usage, especially before bed.
- **Mindful use:** Be aware of your phone usage habits and use it mindfully.
- **Digital detox:** Take breaks from technology to reduce screen time.
- **Seek help:** If you're struggling with excessive phone use, consider seeking professional help.

We can assist young people have better connections with their phones and enhance their general well-being by addressing these challenges.

References:

1. Eckleberry-Hunt, J., & Tucciarone, J. (2011). The Challenges and Opportunities of Teaching "Generation Y." *Journal of Graduate Medical Education*, *3*(4), 458–461. https://doi.org/10.4300/JGME-03-04-15
2. Erlacher, J., & White, K. (2022). *Mobilizing Gen Z: Challenges and Opportunities for the Global Age of Missions*. William Carey Publishing.
3. Fonseka, D. (2024, May 30). How Gen Z Shapes Business Practices Through Digital Fluency. *Emerald Isle Manpower*. https://emeraldislemanpower.com/how-gen-z-shapes-business-practices-through-digital-fluency/
4. Hong, W., Liu, R.-D., Ding, Y., Sheng, X., & Zhen, R. (2020). Mobile phone addiction and cognitive failures in daily life: The mediating roles of sleep duration and quality and the moderating role of trait self-regulation. *Addictive Behaviors*, *107*, 106383. https://doi.org/10.1016/j.addbeh.2020.106383
5. Jniene, A., Errguig, L., El Hangouche, A. J., Rkain, H., Aboudrar, S., El Ftouh, M., & Dakka, T. (2019). Perception of Sleep Disturbances due to Bedtime Use of Blue Light-Emitting Devices and Its Impact on Habits and Sleep Quality among Young Medical Students. *BioMed Research International*, *2019*, 1–8. https://doi.org/10.1155/2019/7012350
6. *News and Blog Articles*. (n.d.). News and Blog Articles. Retrieved August 27, 2024, from https://wickedbionic.com/blog/gen-z-and-their-priorities-around-gender-and-lgbtq
7. Resources, M. A., Information. (2012). *Digital Literacy: Concepts, Methodologies, Tools, and Applications: Concepts, Methodologies, Tools, and Applications*. IGI Global.
8. Rozlan, N. Z. A., & Subramaniam, G. (2020). The Impact of Flexible Working Arrangements on Millennials: A Conceptual Analysis. *International Journal of Academic Research in Business and Social Sciences*, *10*(11), Pages 938-948. https://doi.org/10.6007/IJARBSS/v10-i11/8152