From Engagement to Addiction: Tiktok's impact on Emerging Adults

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Abstract

Tiktok, being one of the popular short video platforms has slowly entered in our life as a platform that can be used as a source of entertainment. This study examines the growing influence of Tiktok's algorithm specially on emerging adults and its potential role in mental health issues and addiction. Here secondary data from various reliable sources are used in order to demonstrate the overall growth of Tiktok. Downloads, age demographics, time spent using Tiktok etc are studied and demonstrated. A correlation between Tiktok usage and increased mental health issues is illustrated using graphs and tables. When various data were studied it was found that the emerging adults who are main users of Tiktok are more likely to suffer from mental health issues as compare to other age group. The findings reveal that there is great need of understanding the effect of Tiktok especially on young user's mental health.

Keywords: Tiktok, addiction, content, mental health, emerging adults

Introduction:

In this digital age, technological advancement is changing many aspects of our lives. Today's technology and smartphones have also greatly changed the way how people interact, connect and consume content. This technology developed to help people connect easily is now reducing the amount of social engagements. Without being self-aware, people are slowly getting trapped in this quicksand of technology. Reports suggest that actual usage of cellphone is 48.5% higher than self-reported data (Daniel Darghan Felisoni, 2017). This gap can contribute to social media addiction (Francesca C. Ryding, 2020).

These days short video apps have gained immense popularity due to their engaging content. Tiktok is recognized as leading platform for short videos (https://www.tiktok.com/about). Launched on 2016 in China by the name of Douyin it later came as Tiktok outside china on May of 2017 (https://www.bytedance.com/en/). Tiktok is a popular short video application used mostly for entertainment which also serve as tool for advertising (Al Hassam Bin Salam, 2022). Tiktok's engaging content has also led to addiction among its users by encouraging passive consumption of the content as user have to just swipe to see next content (Zhao, 2021) Tiktok's ability to continuously satisfy the user expectation by personalized recommendation plays huge role in addictive behavior as

user spend a lot of time on the app (Huanhuan Cao, 2013; AIDA NABILAH AZMAN1, 2021). This traps its user in a never-ending closed loop.

Research suggest that emerging adults tends to have highest level of online engagement across various devices (Kemp, 2019). As Tiktok's algorithm offers personalized recommendation it may result in uncontrollable usage leading to addiction (Huanhuan Cao, 2013), (Al Hassam Bin Salam, 2022). Research also do claim that user who reported overusing Tiktok experience a certain kind of frustration in their lives (Yang, 2020). Despite huge growth of Tiktok, limited research explores this shift from engagement to addiction in emerging adults. It's ability to continuously satisfy the user expectation by personalized recommendation plays huge role in addictive behavior as user spend a lot of time on the app (Huanhuan Cao, 2013). Tiktok's algorithm lets user consume the content chosen for them rather than actively searching for it. The more user uses this app the more its algorithm understands the user and recommends personalized content and this is how the user seems to be caught on loop of endless entertainment (Zhao, 2021). Although at a first glance this may seem fun but prolonged use of short video application like Tiktok increases fast and automated thinking processes but hinders reasoning, analysis abilities, decision making and critical thinking (Ma, 2024)

The popularity of Tiktok increased when celebrities began to add their profiles on this platform, which has greatly impacted the youth lifestyles (Awan, 2024). Research suggests that Tiktok also plays significant role to increase the narcissistic personality traits among youth especially in females (Nazneen, 2022). Creating appealing profiles or content to get attention from other through likes, comments and fame they gain from Tiktok, can lead to beauty and personality insecurities (Dr. Irfan Sabir, 2020). This issue can make it hard for emerging adults to recognize signs of depression on them. (Sachiko A. Kuwabara, 2007). While Tiktok serves as an online learning tool which enhances communication skill and creativity in education (AIDA NABILAH AZMAN1, 2021), with this sudden rise it can also expose youth to harmful content and misinformation (Turuba R, 2024). Overtime Tiktok users might lose some self-awareness and critical thinking, allowing the app's recommendation shape their actions and thoughts (Ma, 2024) (Aparajita Bhandari, 2022). Tiktok's popularity is also often linked with causing issues like vulgarity, social problems, privacy issues and personality traits. (Badriya Abdul Jaffar, 2019), (Dr. Irfan Sabir, 2020).

This research is conducted to explore how Tiktok's algorithm is slowly grasping emerging youths resulting to addiction and how does it impact their mental health. With available research and studies let's formulate a research hypothesis, "Increased Tiktok use is linked with addiction, which is harming mental health especially in emerging adults."

Methodology

Craze of creating Tiktok videos has led to accidents in various places resulting in injuries and even death as users often become distracted while filming (I Sabir, 2020). It clearly demonstrates how much people prioritize Tiktok. As 34.8% of Tiktok users being emerging adults this research mainly focuses engagement of emerging adults. Data from

Digital Global Overview reports (2019 -2024), Statistica, Pew Research and Exploding topics were studied to study Tiktok's user growth and other statistics. To highlight the pattern of growth of Tiktok in past years and how it transitioned from a platform for casual entertainment to one increasingly being linked to addiction, data are represented using bar graphs and line graphs. Similarly, bar graphs provide give clear view of the age group being actively engaged in the platform and age group that reports mental health issues.

Observation

Tiktok has seen huge growth since its release. While peeking at data from Table 1, it can be observed that growth in Tiktok's downloads is inclining from 2016 to 2020. Tiktok saw a slight drop in 2021 and after that its growth is constant.

Table 1: Tiktok yearly downloads from 2016 to 2024

Yearly	Tiktok yearly downloads from 2016 to 2024 (in millions)
2016	68
2017	132
2018	597
2019	727
2020	850
2021	656
2022	672
2023	654
2024*	180+
Total	4356

Source: Business of Apps and Sensor Tower.

*Data for the year 2024 is just from the first quarter of the year so is incomplete

Table 1 shows significant increase in Tiktok downloads each year. Notable jumps include almost doubling in downloads during its first year of release (2016 to 2017) and 4.5 times increase in downloads from 2017 to 2018. From figure 1 we can observe that yearly downloads peaked at 2020 and then Tiktok saw slight decline in downloads in 2021. In 2022 and 2023 the download numbers remained consistently high.
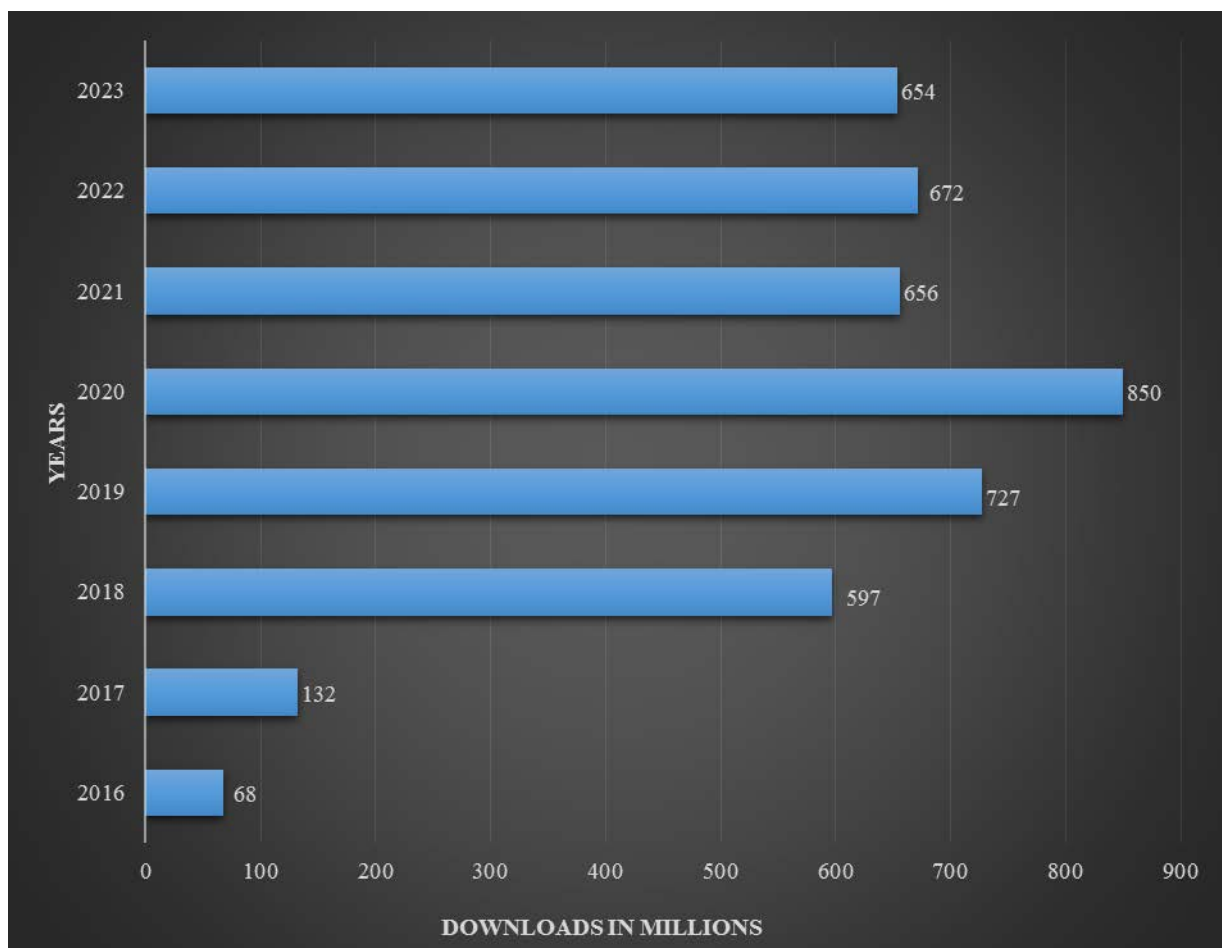
Figure 1:Tiktok yearly downloads from 2016 to 2023 in millions

Overall, Tiktok showed rapid growth in its early years. The drop-in downloads on 2021 may be due to saturation and ban in India on June 29, 2020 (Alex Travelli, 2024). From figure 2 it is clear that more than half of the adult Tiktok users are male. From Figure 2 its clear that Tiktok's largest user base is in younger age group with male users consistently outnumbering female users across all age categories except in 55+ where distribution is equal.
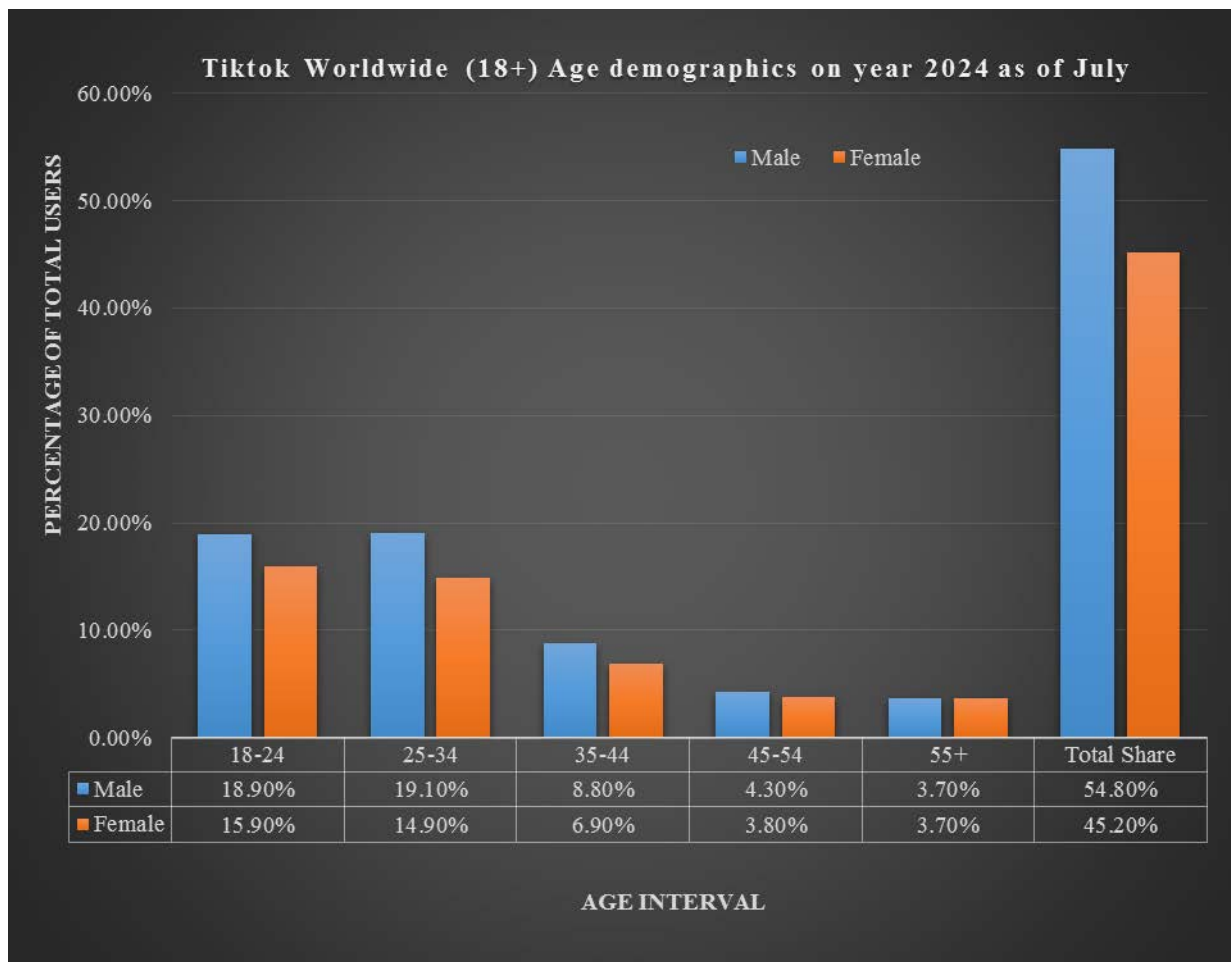
Figure 2: Tiktok Worldwide (18+) Age demographics on year 2024 as of July. Source: Statistica

Figure 2 clearly shows that 54.50% of Tiktok users are male and 45.20% of the Tiktok users are female. Similarly, highest number of users is of age group 18-24 which is 34.8% followed by user of age group 25-30 and least number of users are of age 55+.Male users dominate overall and the usage decreases with age for both genders. Figure 3 illustrates the number of global active Tiktok users from 2018 to 2023 which shows that Tiktok had more than tripled its active user count since 2018, showing its global popularity and success.
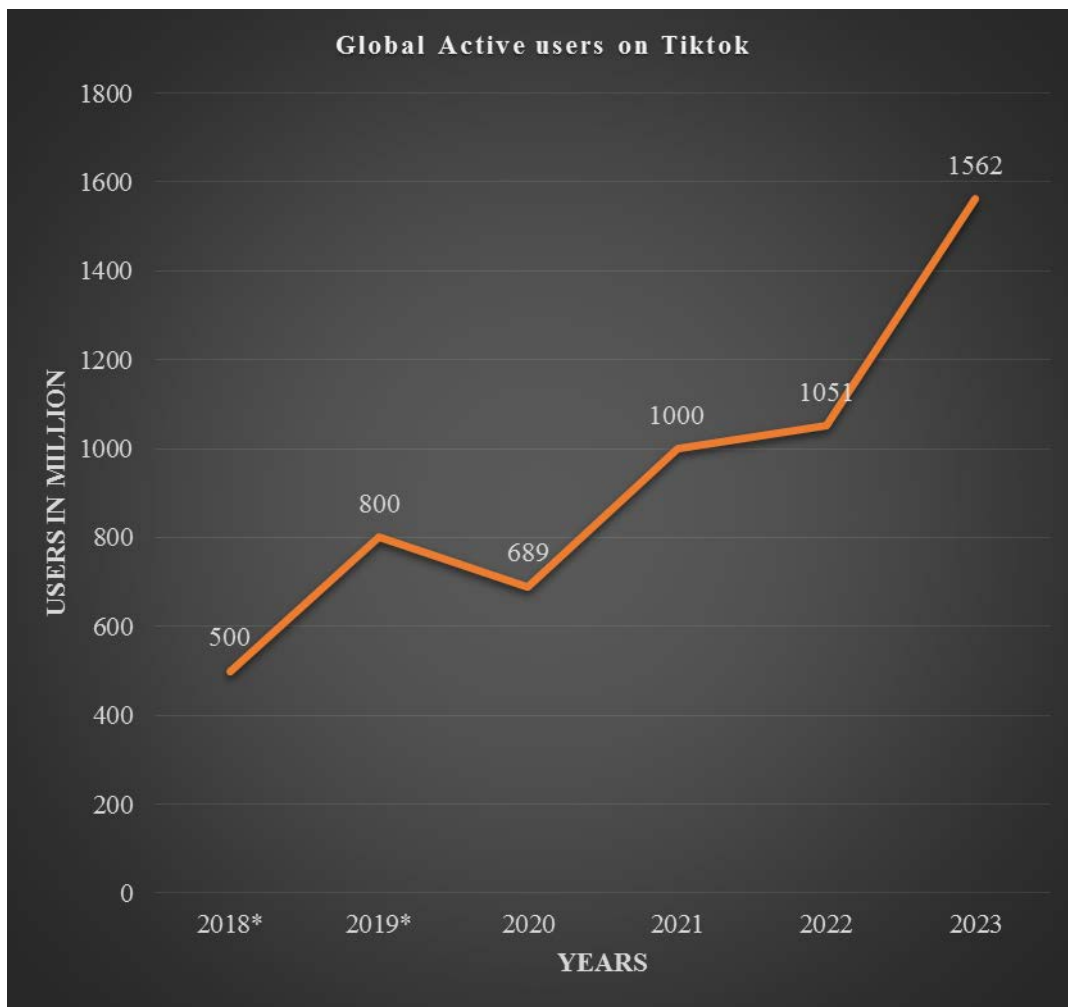
Figure 3: Global Active users on Tiktok. Source: Digital Global Overview report from 2019 to 2024.

*Merged users of Douyin and Tiktok

From figure 3 it is clear that Tiktok's global active users grew from 500 million in 2018 to 1.562 billion by 2023. Tiktok active users rapidly grew in small period of time. There was slight decline in 2020 but the platform quickly recovered and expanded its user base in following years. Even when comparing growth of Tiktok users (2020 to 2023) only it has increased by whooping 126.70 % in 3 years' time period. Figure 4 demonstrates the average amount of time in hours spent by active Tiktok users per month. It highlights how the amount of time users spend on tiktok has consistently increased over years.
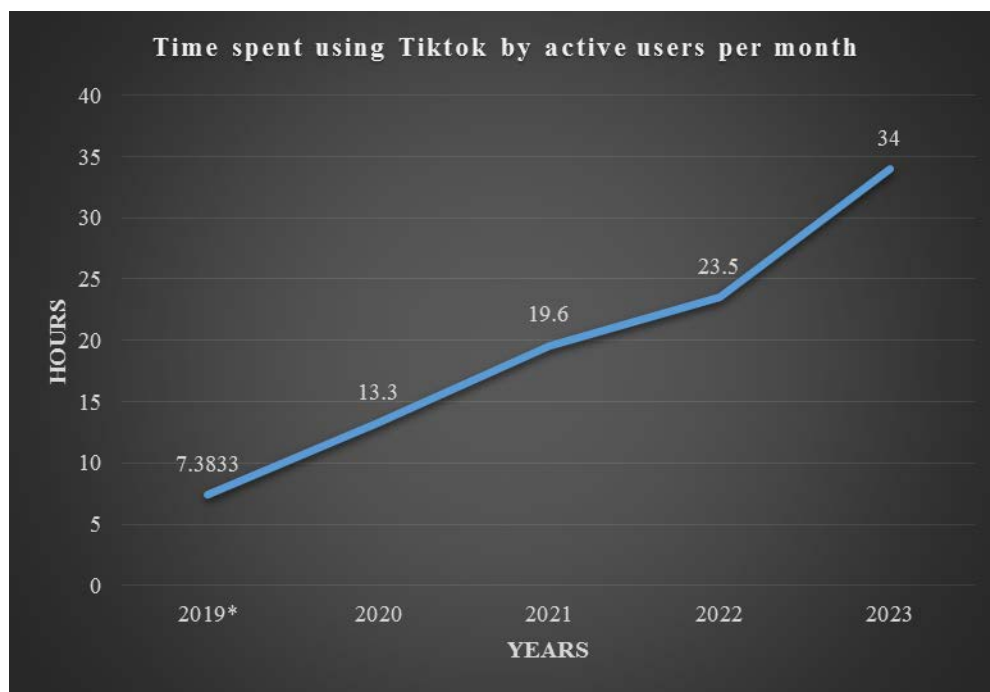
Figure 4: Time spent using Tiktok by active users per month in Hours. Source: Exploding topic, Digital Global Overview.

*Average data of 2019 was not found so data of Oct 2019 was used

Figure 4 demonstrates that on 2019 users spent an average of 7.38 hours per month on 2019 significantly increased to an average of 34 hours per month on 2023. On 2023 a sharp increase of 10.5 hours can be seen from the figure 4. It highlights that Tiktok engagement rose by 360.49% in four years from 2019 to 2023. Figure 5 represents the percentage share of particular age group of US adults using Tiktok on 2022. It shows that 33% of US adults use tiktok and among them maximum users are of of age group 18 to 29.
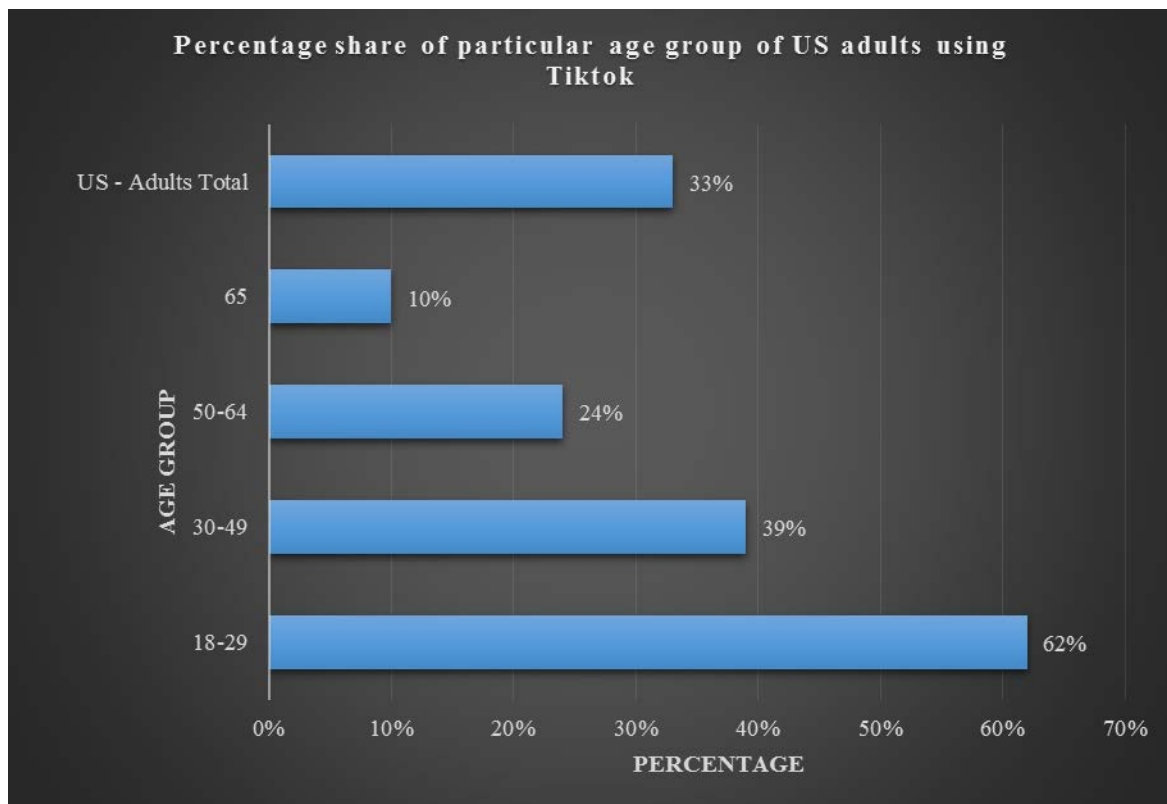
Figure 5: Percentage share of particular age group of US adults using Tiktok. Source:2022, Source: Pew Research Centre

Figure 5 illustrates that. 62% people of age group 18-29 used Tiktok. It clearly indicates that highest user of Tiktok is of aged 18-29 in US. Similarly, from figure 5 it is clear that in US when comparison among the people of age groups using tiktok was made 45.9% of users were of age group 18-29, 28.9% of users were of age 30-49,17.8% of users were of age group 50-64 and 7.4% of users were 65 or older in age. It shows that tiktok usage decreases with age showing that Tiktok is most popular in younger age group highlighting its strong appeal to younger demographics. Figure 6 shows the percentage of individual globally reporting mental health issues in same year 2022. It indicates that high number of people in younger age group reported being suffered from mental health issues as compared to older age groups with least percentage of people with age 65 or older reporting mental health issues.
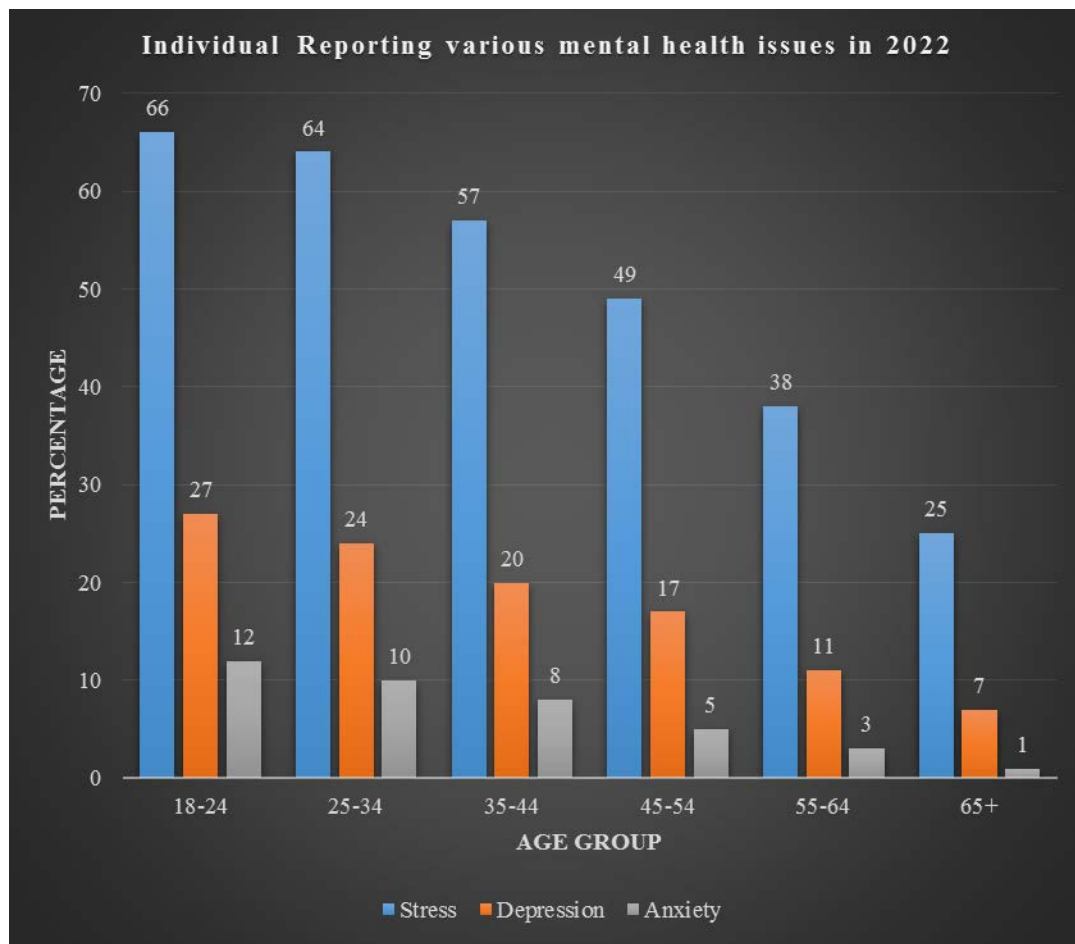
Figure 6: Percentage of people globally reporting moderate to severe mental health issues in 2022, categorized by age group

Source: Statista 2024, Self-reported data: Online survey from Sept 5 to Oct 5 2022; 30,636 respondents worldwide

Figure 6 highlights that younger individuals are experiencing higher level of stress, anxiety and depression as compared to older ones. It depicts that individual of age 18 to 24 experience significantly higher level of stress, depression and anxiety as compared to older groups. It also shows that this issues steadily decline with age and younger people are more likely to face mental health problem.

Figure 7 highlights the percentage of adults in US who reported frequently feeling anxious, depressed or lonely in 2022 based on Statistica survey. It shows a clear trend that younger adults report significantly higher level of mental suffering as compared to older age groups.
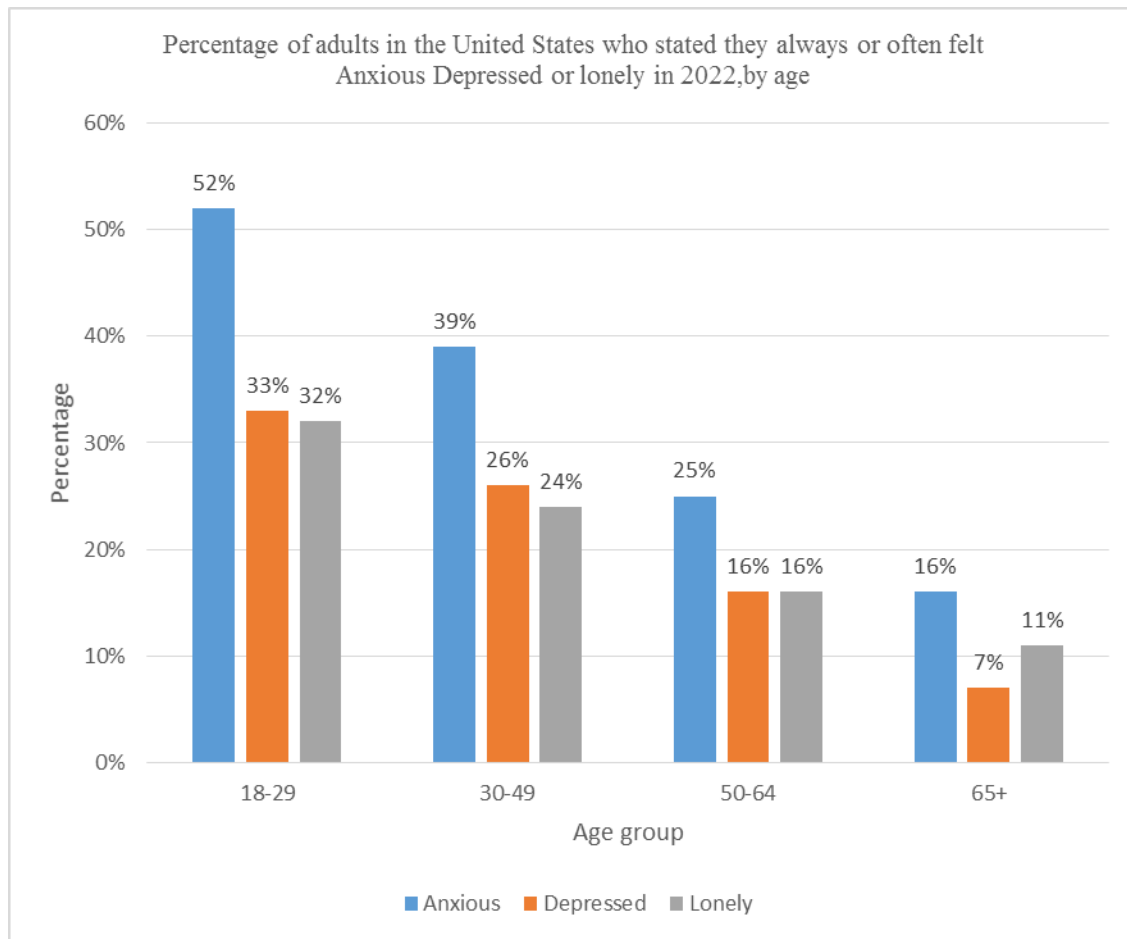
Figure 7: Percentage of adults in the United States who stated they always or often felt Anxious Depressed or lonely in 2022,by age. Source: Statista, Self-reported data from online survey conducted from July 28 to August 9

Figure 7 shows that in US younger individuals aged 18-29 reported highest rates of having mental issues. It can be seen from the figure that 52% adults of age 18-29 stated that they often felt anxious, 33% adults stated that they felt depressed and 32% stated that they felt lonely. This report in mental suffering decreased with increase in age.

Ethics

This research will follow the ethical standards by accurately citing all the secondary information source according to APA 6th edition guidelines. As this research is purely dependent on publicly available data from reputed and reliable sources and no primary data is collected, it is ensured that the original data and findings are not altered. Findings from

original content are presented carefully. Similarly, no confidential or sensitive information is used in the study.

Result and Discussion

As this research was conducted with the aim to understand the impact of Tiktok algorithm, how is it slowly being addictive and its impact on mental health of emerging adults. To understand the data, literatures were reviewed, data from various sources were collected and presented in the form of charts to understand the pattern. It was found that emerging adults are the main users of Tiktok. The average time spent by Tiktok's users per month grew by 360.49% in just 4 years from 2019 to 2023. In US 33% of total adults uses Tiktok where 62% of emerging adults reported using Tiktok. While comparing among tiktok users in US it was found that 45.9% of Tiktok users were of age 18 to 29. Likewise, the same age group in US reported highest percentage of feeling lonely, anxious and depressed. Statistica data shows that mental health problems are most common in emerging adults which decrease as age increases. The findings show that the hypothesis formed earlier is true and Tiktok usage is directly linked with increase in mental health issues.

Conclusion

Hence the findings of this study confirm that due to algorithmic recommendation of Tiktok, mental health of emerging adults is affected to some extent. The analysis shows that the emerging adults are largest group of Tiktok users with this same group reporting higher level of anxiety, depression and loneliness as compared to other older age groups. Though some people consider Tiktok as source of entertainment and education, it also contributes to harmful mental challenges and addiction. Future research should focus on comparison of Tiktok's addictive nature with nature of other social media platforms and also, it's long term psychological impacts across different groups. Fixing these issues is key to develop healthier habit and understanding Tiktok's risks.

Acknowledgement

References

AIDA NABILAH AZMAN1, N. S. (2021). Acceptance of TikTok onthe Youth towards Education Development. *Borneo International Journal*, 19-15.

Al Hassam Bin Salam, K. S. (2022). IMPACT OF TIKTOK ON YOUTH LIFESTYLE IN LAHORE. *CYBERPSYCHOLOGY, BEHAVIOR, AND SOCIAL NETWORKING.*

Alex Travelli, S. R. (2024). *What Happened When India Pulled the Plug on TikTok.* The New York Times.

Aparajita Bhandari, S. B. (2022). Why's Everyone on TikTok Now? The Algorithmized Self and the Future of Self-Making on Social Media. *Social Media + Society*, 1-11.

Awan, S. (2024). IMPACT OF TIKTOK ON YOUTH. *CYBERPSYCHOLOGY, BEHAVIOR, AND SOCIAL NETWORKING*, 1-24.

Badriya Abdul Jaffar, S. R. (2019). Living in a Moment: Impact of TicTok on Influencing Younger Generation into. *Journal of Content, Community & Communication.*

Daniel Darghan Felisoni, A. S. (2017). *Cell phone usage and academic performance: An experiment.* Computers & Education.

Dr. Irfan Sabir, I. N. (2020). TikTok Addictions and Its Disorders among Youth. *SCHOLEDGE International Journal of Multidisciplinary & Allied Studies*, 140-146.

Francesca C. Ryding, D. J. (2020). Passive objective measures in the assessment of problematic smartphone. *ELSEVIER.*

Huanhuan Cao, J. J.-B. (2013). A Maslow's hierarchy of needs analysis of social networking services continuance. *Journal of Service Management*, 170-190.

I Sabir, I. N. (2020). TikTok addictions and its disorders among youth of Pakistan. *Scholedge International Journal of Multidisciplinary & Allied Studies*, 140-146.

Kemp, S. (2019). *DIGITAL 2019: GLOBAL DIGITAL OVERVIEW.* DataReportal.

Ma, Q. J. (2024). Swiping more, thinking less: Using TikTok hinders analytic thinking. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace.*

Nazneen, S. D. (2022). IMPACT OF TIKTOK USE ON NARCISSISTIC PERSONALITY TRAITS. *International Journal of Psychological and Behavioural Research* , 1-17.

Sachiko A. Kuwabara, B. W. (2007). A qualitative exploration of depression in emerging adulthood: disorder,development, and social context. *ELSEVIER*, 317–324.

Turuba R, C. W.-D. (2024). Exploring How Youth Use TikTok for Mental Health Information in British Columbia: Semistructured Interview Study With Youth. *JMIR Infodemiology* .

Yang, Y. (2020, June). *Understanding Young Adults' TikTok Usage.* University of California San Diego, Communication.

Zhao, Z. (2021). *Analysis on the "Douyin (Tiktok) Mania" Phenomenon Based on.* E3S Web of Conferences.