

The Rise of Brainrot on Social Media

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Abstract - This paper examines the phenomenon of internet slang known as “brain rot” which became one of the most talked about phrases of digital culture in late 2024. In 2024, Oxford University Press named it Word of the Year after tracking a 230 percent jump in usage compared with the year before. So what does it actually mean? At its core, it refers to the supposed erosion of someone's mental or intellectual state, particularly when it's blamed on consuming too much material, online content above all these days. And despite how current it feels, the term itself is far from new. Thoreau was using it back in 1854, though it stayed largely dormant until Gen Z and Gen Alpha revived it on TikTok, where it now describes content that's trivial, repetitive, or mentally undemanding., Influencers users in 2024. Recent studies suggest that short-form video consumption and continuous scrolling may be associated with attention difficulties, cognitive fatigue, memory disruption, and reduced intention recall. At the same time, research indicates that young users may engage with brainrot content for entertainment, escapism, social connection, and resistance to productivity-driven digital culture. The paper will employ a participatory approach to youth media research and utilize genre analysis to demonstrate how brain rot allows TikTok users to engage in a frivolous, unproductive, and ultimately feel-good leisure time. Keywords: Brain Rot, Social Media, TikTok, Short-Form Videos, Attention Span, Cognitive Effects, Algorithmic Recommendation, Digital Media.

Key Words: optics, photonics, light, lasers, templates, journals

1. INTRODUCTION

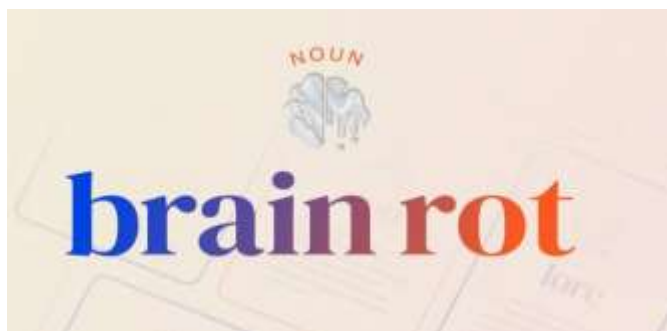


Fig-1: “brain rot” as their Word of the Year

In December 2024, Oxford University Press crowned "brain rot" its Word of the Year, a moment when slang born in teenage internet corners officially made it into the dictionary. Oxford sums up the term as "the supposed deterioration of a person's mental or intellectual state, especially viewed as the result of overconsumption of material (now particularly online) of a trivial or undemanding nature." Oxford defines the term as "the

supposed deterioration of a person's mental or intellectual state, especially viewed as the result of overconsumption of material (now particularly online) of a trivial or undemanding nature." The word's popularity exploded in 2024, with usage jumping 230 percent over the previous year. First used in Thoreau's Walden in 1854, “brain rot” was reappropriated by Gen Alpha as a humorous term for “childish content” memes. The media reacted to the TikTok phenomenon with doom and gloom headlines. As Andrew Przybylski noted, brain rot was presented as “a sign of a harmful TikTok and a dangerous waste of time for young people,” with journalists writing about “the threat to youth well-being” and “students’ mental health and ability to learn”. It is an example of “moral panic,” a process where members of the public express outrage towards a new type of “folk devils”. Yet, as Przybylski pointed out, “there’s no evidence of brain rot actually being a thing”. Instead, I will argue that brain rot is best understood as a “participatory genre.” In essence, it is a set of “un-serious” activities that allow teenagers to engage in “feel good” wasting time with TikTok, Instagram reels or YouTube short videos. Similar to how leisure has traditionally been a way to “renounce responsibility,”

2. LITRATURE REVIEW

Scientific investigations regarding the consumption of brief motion pictures offer additional background for comprehending brainrot. Experts claim that digital platforms such as TikTok, Reels, and Short-videos are constructed for the swift distribution of information, unending movement of the screen, and suggestions customized by mathematical procedures. Because these features subject individuals to a series of fast-altering triggers, brainrot might lead to obstacles when people attempt to focus or analyse facts with depth. It has been observed that academic documents describe links between heavy usage of brief motion pictures and challenges with focus, memory problems, and mental tiredness. Chioos examined how viewing brief motion pictures influences memory for future tasks and the study found that fast changes in focus can block the capacity of individuals to remember their goals. Brainrot research is connected to these findings because digital platforms move the viewer from one subject or trigger to another without stopping. Even though these results relate to the viewing of brief motion pictures in a general way, brainrot content should not be considered a definite cause of mental damage by the public. Multiple regular traits of brainrot were noted by the same investigation, such as simple talking, exciting words, a small variety of vocabulary, fast jumps between scenes, and pictures or sounds that stir feelings. This type of material was linked with high levels of inactive participation, while it was seen that written remarks were usually shorter and lacked deep meaning. Final discoveries indicate that the fame of brainrot might happen because of the

desires of viewers and because social networking sites give prizes to materials that catch focus quickly.

3. METHODOLOGY

3.1 Research Design

For this study, a descriptive and analytical research design is chosen to be used in studying the phenomenon of brainrot. The paper will specifically focus on the qualities of brainrot content, its prevalence on short-form video websites, the mechanisms by which recommendation algorithms work to promote such content, and the effects such material might have on users' attention and cognitive behaviour.

3.2 Data Collection

The primary source of information for this study is the collection and analysis of scholarly articles and research reports on topics related to brainrot, Tik Tok, short-form video, algorithms, attention, memory, and youth culture. The works researching brainrot directly present their findings stemming from extensive research data and use various methodologies, including extensive analysis of Tik Tok content (e.g., 78,452 TikTok videos were analysed to identify patterns and qualities specific to brainrot content), surveys, focus groups.

3.3 Data Analysis

The information garnered from the scholarly and professional literature is processed and organized using the comparative and thematic methods. The findings of the previous studies are comparatively analysed and evaluated applying themes pertinent to brainrot, such as properties of brainrot contents, engagement, algorithms, attention, memory, and youth culture. The reviewed articles report on the associations between short-form video viewing and attention span, working memory, and cognitive capacity.

3.4 Research Approach

For this study, a dual approach, applying both negative and cultural perspectives to brainrot is chosen. Negative perspective focuses on the potential of brainrot to inflict distraction, cognitive fatigue, attention disorder, and engagement in continuous scrolling. The cultural perspective views brainrot as a form of entertainment, an immersive experience, which allows to participate in the community of young people, utilize leisure time, and resist hard work.

3.5 Limitations of Methodology

Due to the nature of this study, the causal relationships between engagement with brainrot and cognitive deterioration cannot be established. The scholarly articles analysed for this paper acknowledge the limitations of research on brainrot, including the variance between the platforms, temporal variations within the sample period, cultural differences, and challenges posed by the measurement of real-time cognitive response.

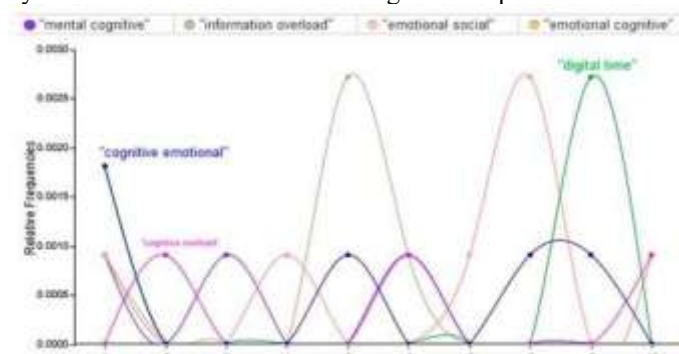


Fig-2: Relative Frequency of Cognitive and Emotional Effects in Digital Content

4. BODY OF PAPER

4.1 Brainrot's Social Media Uplift

What part do TikTok, Instagram Reels, YouTube Shorts and other short-form social media services play in spreading Brainrot? How short-form videos, memes, nonsensical humor, repetitive trends and AI generation affected the Brainrot.

4.2 Characteristics of Brainrot Content

What are the key features of Brainrot Content?

- Short-form Content
- Content that rapidly transitions
- The content itself is filled with repetitive terms and phrases
- Surreal or Absurd Content
- Clickbait
- Sensationalized Content
- Content with low

4.3 Brainrot and Attention

Explain the link between brainrot and attention. Discuss how continuous consumption of short-form video content can affect attention span. Several studies have found a correlation between heavy short-form video consumption and attention problems.

4.4 Positive and Negative

The table below gives the clear how positive and negative impact of brainrot here.

Research Area	Result
Brainrot Content	Short, repetitive, sensational, and low-cognitive-value content
User Engagement	High views and shares with less substantive interaction
Attention	Associated with attention difficulties
Memory	Rapid context switching may affect working memory
Cognitive Fatigue	Prolonged exposure may contribute to mental fatigue
Youth Culture	Supports entertainment, escapism, and social bonding
Algorithms	Help increase the visibility of highly engaging content
Long-Term Effects	Direct causal effects remain unconfirmed

Table-1: Impact of Brainrot Content on Users

5. RESULTS

The results of the analysed researches confirm that brainrot has become a recognized short-form content genre on social media platforms, such as TikTok. The data retrieved from the articles reveal that brainrot content is characterized by its short length, frequent transitions, clickbait language, sensationalism, low lexical complexity, and high-energy visuals. According to one of the analysed articles, which included the statistical data retrieved from TikTok videos, the listed qualities are especially evident in 15-second TikTok videos.

The research results also demonstrate that videos containing brainrot have high numbers of views and shares, while comments in such videos are lower than the average number of comments per video and are relatively short. In addition, the analysed articles indicate that the high level of cognitive load, which is caused by consuming short-form video content, could lead to decreased levels of attention, working memory, and cognitive capacity or create a distracted state of mind in viewers.

While the analysed articles do not identify any negative psychological or biological impact that brainrot could have on an individual in the long-term perspective, they do suggest that such content could bring satisfaction, relaxation, and escapism to the users consuming it. Moreover, brainrot could help young people feel connected and be a part of youth culture.

Overall, the results of the research are consistent with the idea that brainrot is not simply useless content. The phenomenon is the result of the particular interplay between users, the creators, and social-media algorithms which promote it using the short-form video mechanism and engagement-driven recommendation systems. However, with regard to the reviewed literature, it is evident that the negative impact of brainrot also cannot be simply dismissed. The research findings suggest that there is a particular risk to the user's cognitive development associated with the consumption of short-form media content in an excessively high volume. However, it is yet to be seen whether such effects are permanent or simply temporary and insignificant in the long-term, which has not been confirmed yet by the studies cited.

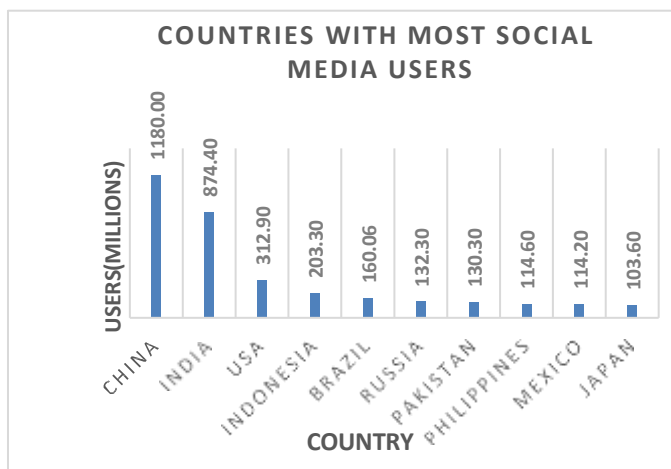


Fig-3: Countries with most social media users

6. DISCUSSION

The results of this study demonstrate that the brainrot phenomenon is intrinsically linked with the emergence of the short-form social media platforms and their recommendation algorithms. Brainrot content is characterized by its short length, freneticism, repetition, and lack of intellectual depth. The analysis of 78,452 TikTok videos demonstrated that the majority of brainrot characteristics were prevalent in very short videos, were exceptionally viral, and gained extraordinary amounts of views and shares. This study also demonstrated that the majority of brainrot videos had high numbers of views and shares, but relatively few comments.

Therefore, the engagement score was largely dictated by views and shares. Moreover, the data demonstrated that brainrot videos were primarily consumed in TikTok through passive engagement. The present study's most important message pertains to attention and cognitive function. As postulated by previous research and demonstrated by the mechanisms of TikTok and similar platforms, the consumption of short-form videos by adults results in dangerously heightened levels of attention, working memory load, and cognitive fatigue. Attention dysfunction following the consumption of short-form videos was reported in many of the previous studies as well.

However, it is currently too early to assess whether these effects are permanent and catastrophic, as there are no long-term studies on brainrot. This study also demonstrated that brainrot is not purely detrimental; the consumption of brainrot is a part of the youth culture of today and is driven primarily by entertainment-seeking motives. In summary, this study demonstrates that brainrot is a complex phenomenon which emerges from a combination of factors and involves the users, platforms, and content creators. As a result, it has significant implications for neurocognitive research and social media use optimization.

7. CONCLUSION

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This study also demonstrated that brainrot is not purely detrimental; the consumption of brainrot is a part of the youth culture of today and is driven primarily by entertainment-seeking motives. In some ways, brainrot can be seen as an extension of leisure culture with the potential to provide rest, relaxation, escapism, community engagement, and entertainment. Therefore, brainrot consumption cannot be evaluated in a vacuum; rather, its impact depends on the context.

of consumption, the specific video being watched, and the motives of the consumer.

In summary, this study demonstrates that brainrot is a complex phenomenon which emerges from a combination of factors and involves the users, platforms, and content creators. As a result, it has significant implications for neurocognitive research and social media use optimization.

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REFERENCES

- [1] Oxford University Press. (2024). “‘Brain rot’ named Oxford Word of the Year 2024.” Oxford University Press. [Oxford University Press source](#)
- [2] Alruwaili, R. F. (2025). “Scroll immersion and short-form video use: Predictors of attention, memory, and fatigue among Saudi social media users.” *Acta Psychologica*, 260, 105674. <https://doi.org/10.1016/j.actpsy.2025.105674>. (ScienceDirect) [Full Article](#)
- [3] Chiossi, F., Haliburton, L., Ou, C., Butz, A. M., & Schmidt, A. (2023). “Short-Form Videos Degrade Our Capacity to Retain Intentions: Effect of Context Switching on Prospective Memory.” *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI '23)*. <https://doi.org/10.1145/3544548.3580778>. (Medien.ifi.lmu.de) [Open-access PDF](#)
- [4] Chen, Z., Liu, P., Piao, J., Xu, F., & Li, Y. (2024). “Shorter Is Different: Characterizing the Dynamics of Short-Form Video Platforms.” arXiv:2410.16058. (arXiv) [Research Paper](#)
- [5] Tunca, S., Balcioglu, Y. S., Ilgun-Kamanli, A., Bilgen, A., & Yilmaz, C. (2026). “Operationalizing brain rot on TikTok through linguistic, structural, and behavioural indicators of low-cognitive-value media content.” *Journal of Behavioral Addictions*, 15(2), 650–660. <https://doi.org/10.1556/2006.2025.00241>. (PubMed) [Full-text article / PDF](#)
- [6] Gotzfried, A., & Heitmayer, M. (2026). “Making sense of nonsense: A qualitative investigation of how brainrot content serves Generation Z’s media needs.” *Computers in Human Behavior: Artificial Humans*, 7, 100255. <https://doi.org/10.1016/j.chbah.2026.100255>.
- [7] Batmaz, H. (2026). “The Serial Mediating Role of Perceived Digital Cognitive Manipulation and Brain Rot in the Relationship Between Social Media Addiction and Resilience: An SEM and Network Analysis Study.” *Brain and Behavior*, 16(5), e71472. <https://doi.org/10.1002/brb3.71472>.
- [8] Rozati, F. (2025). “Analysing the Effects of TikTok on the Attention Span of Evolving High School Students.” *Intersect: The Stanford Journal of Science, Technology, and Society*, 18(2). (Open Journal Systems) [PDF / Article](#)
- [9] Gross, T., Guglielmucci, F., Narvaez Carrión, C. R., & Zerrouki, Y. (2025). *Brainrot Reality? Evidence-Based Neuropsychiatric Perspectives on Early-Life Media Use*. Zentrum für Medienpsychologie und Verhaltensforschung. (ResearchGate) [PDF / Research paper](#)
- [10] Mostafa, M. M., et al. (2025). “Development and Psychometric Validation of the Brain Rot Scale: Measuring Digital Content Overconsumption Among Generation Alpha and Generation Z.” *European Journal of Investigation in Health, Psychology and Education*, 15(12), 262. <https://doi.org/10.3390/ejihpe15120262>.
- [11] Yan, T., Su, C., Xue, W., Hu, Y., & Zhou, H. (2024). “Mobile phone short video use negatively impacts attention functions: An EEG study.” *Frontiers in Human Neuroscience*, 18, 1383913. <https://doi.org/10.3389/fnhum.2024.1383913>.
- [12] Walla, P., & Zheng, Y. (2024). “Intense Short-Video-Based Social Media Use reduces the P300 Event-Related Potential Component in a Visual Oddball Experiment: A Sign for Reduced Attention.” *Life*, 14(3), 290. <https://doi.org/10.3390/life14030290>.
- [13] Wei, Z., Guo, Y., Tsang, M. H. L., Montag, C., Becker, B., & Kou, J. (2024). “Social media distractions alter behavioral and neural patterns to global-local attention: The moderation effect of fear of missing out.” *Computers in Human Behavior*, 157, 108258. <https://doi.org/10.1016/j.chb.2024.108258>.
- [14] Otto, T. (2025). “Should educators be concerned? The impact of short videos on rational thinking and learning: A comparative analysis.” *Computers & Education*, 234, 105330. <https://doi.org/10.1016/j.compedu.2025.105330>.
- [15] Alruwaili, R. F. (2025). “Scroll immersion and short-form video use: Predictors of attention, memory, and fatigue among Saudi social media users.” *Acta Psychologica*, 260, 105674. <https://doi.org/10.1016/j.actpsy.2025.105674>.
- [16] “Potential Effect of Short Video Usage Intensity on Short Video Addiction, Perceived Mood Enhancement (‘TikTok Brain’), and Attention Control among Chinese Adolescents.” (2025). *International Journal of Mental Health Promotion*, 27(3), 271–286. <https://doi.org/10.32604/ijmh.2025.059929>.
- [17] Tunca, S., Balcioglu, Y. S., Ilgun-Kamanli, A., Bilgen, A., & Yilmaz, C. (2026). “Operationalizing brain rot on TikTok through linguistic, structural, and behavioural indicators of low-cognitive-value media content.” *Journal of Behavioral Addictions*, 15(2), 650–660. <https://doi.org/10.1556/2006.2025.00241>.
- [18] “Brain Rot” Among University Students in the Digital Age: A Phenomenological Study. (2026). *Current Psychiatry Reports*. <https://doi.org/10.1007/s11920-025-01658-w>.
- [19] Youtube <https://youtu.be/2kOSygSBGJE?si=Nn6HkwnXOIBAcYk>