

# FIT 5145 Foundation of Data Science

## Assignment 1: Proposal

The Unspoken Epidemic - Analysis to Combat the Rise of 'Brain Rot'

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## Introduction

The world's population is increasingly being online today, especially in the recent post-pandemic years. A concerning trend is arising: short-form, low quality but addictive content, usually on social media, is exploding in popularity (Ortiz-Ospina, 2019). For instance, TikTok has exploded in user base to 1.925 billion users since its launch in 2018 (How Many Users on TikTok? Statistics & Facts (2025), n.d.), Instagram Reels has similarly soared to 2 billion users, 726.8 million of which use Reels, despite Instagram Reels only having launched in August 2020 (Connell, 2025), and YouTube Short's has ballooned to 90 billion viewed videos in 2024 compared to 30 billion in 2021 (Ch, 2025). Moreover, video content has also been shortening in length in general. Social media, where brain rot content is typically found, has grown by an absurd 2.52x in the last 10 years, putting it at 5.24 billion people now - a solid majority of the world (Team, 2025). This phenomenon has come to be dubbed as "brain rot" (Heaton, 2024). While the pandemic lockdowns certainly exacerbated this trend, with increased time spent online globally, it is crucial to recognize that the rise of 'brain rot' content was already underway prior to this period. With how our behaviours shape us, it is vital to understand its impact, as research already shows a multitude of negative effects: shortened attention spans, reinforcement of existing viewpoints, dampened critical thinking, worsened academic anxiety, academic engagement and mindfulness, and causes depression - and this list is non-exhaustive. These are societal-level problems, that left unchecked, will have deep-running implications arising in the future. This project aims to have the joint goals of raising public awareness of the dangers of brain rot addiction, and discovering what works to mitigate this to help people live healthier lives.

## Related Work

Naturally, as this is a very recent phenomenon, long-term effects of brain rot content cannot be studied just yet. Research shows that brain rot consumption shortens people's attention spans, reinforce existing viewpoints and dampens critical thinking (Kim, 2024). Another study on students (Li et al., 2024) found that brain rot content significantly affects student academic anxiety, academic engagement, and mindfulness for the worse. Li et al. (2024) also notes that practicing mindfulness mediates the effects on academic anxiety, thus showing an answer as to dampen the negative effects of brain rot addiction. Yet another study (Qu et al., 2023) shows that brain rot content addiction causes depression, which is known to cause many other negative effects. The combined results of these research highlight the significant negative impact of the consumption of brain rot content, and what to do about it. While there are many blogs and articles offering advice on how to deal with "brain rot", for example Curtis (2025) or Boys & Girls Clubs of America (2025), there is a lack of hard research to validate these. This project distinguishes itself by quantifying how bad the effects are and what helps with data.

# Business Model

The project evaluates how 'brain rot' addiction impacts academic performance, quantifies its negative effects, and identifies effective mitigation strategies. It will have the joint goals of raising public awareness of the dangers of brain rot addiction, and discovering what works to mitigate this to help people live healthier lives. This project will be put best to use in educational and mental health institutions, and is also of great benefit to governments and society as a whole, to help implement mitigation strategies. The primary stakeholders who will benefit from this project are:

## 1. Educators

Brain rot affects educational outcomes through reduced focus and increased anxiety in students (Li et al., 2024). By understanding its roots, educators can tailor interventions to improve student performance at its fundamental cause.

## 2. Mental health practitioners

Brain rot exacerbates depression, alongside other mental health problems (Qu et al., 2023), making it more difficult for clients to engage in healthier living. Through a better understanding of this phenomenon, counsellors and therapists will be able to better guide their clients towards healthier lives with improved well-being.

## 3. Government regulators

Brain rot poses a significant detriment to society, contributing to reduced productivity (Kim, 2024) and increased mental health costs (Qu et al., 2023) at a societal level, thereby hindering both economic and technological progress. Providing concrete evidence of these impacts is crucial for driving government action. With compelling data, governments globally can be urged to recognize the urgency of combating brain rot and implement effective measures, such as regulations on social media/content creators and public mental health campaigns to promote awareness.

## 4. Parents

The developmental impact of brain rot on children and adolescents is a serious concern (Kim, 2024). This project will empower parents to take proactive steps to shield their children from the addictive nature of this content, fostering healthier growth. Furthermore, it will provide guidance for parents seeking to mitigate the negative effects of brain rot in situations where children are already exposed (Boys & Girls Clubs of America, 2025).

## 5. Society as a whole

The general population will have better resources to better their well-being and productivity.

## 6. Research

This contributes to society's knowledge of the impact of our behaviours on our lives.

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