Our team has created a language representing popular culture adaptation of meme culture into everyday conversation, known as brain rot. This brain rot language is a formalization of modern internet slang, digital catchphrases, and cultural sayings that may seem nonsensical or even gibberish, but hold significant meaning within Generation Z. Our language captures the chaotic communication styles of the internet, showing how meaning can emerge from random strings.

The alphabet of our language consists of a set of widely recognized symbols: ∑ = {skibidi-toilet, fanum-tax, rizz, sigma, cook, chat, quandale-dingle, glaze, glizzy, jit, karen, yns, mog, mogging, mew, opp, ratio, cooked, simp, sus, yap, aura, negative, bop, goat, session, baby, oil, low, taper, fade, rizzler, glazing, d, ed, _, the, bro, ‘s}. For example, in our alphabet we can define some of the symbols: “rizz” refers to charisma or charm, “ratio” refers to outnumbering someone and is often used to mock someone, “glizzy” refers to hotdog, but more specifically a video of someone stuffing their face with hotdogs, “fanum tax,” a conjunction of two words, refers to a tax you must pay to your friend when ordering food, “sus” refers to someone who’s suspicious, etc.

The brain rot language follows specific patterns and rules to define valid strings. These strings encapsulate the structured nature of the internet slang, despite it seeming random. In our language we have phrase patterns, repetition & emphasis, and length constraints. Our phrase patterns follow <subject> <action> <object> or <expression> format; an example of this would be “jit mogged the sigma,” which roughly translates to “the young person outshined his superior.” An example of an expression would be “ratio,” which can be understood as someone showing their superiority over another. Finally, our last rule is length constraints for our language, such that there must be at least 1 component and a maximum of 8.

The intent of this language is to see how languages evolve in online spaces and continue to be maintained through a shared understanding of an entire generation. This language is also used to educate people unfamiliar with brain rot to allow them to connect with

Generation Z and even adapt some of the sayings into their own personal life. Specifically, this language was influenced by Professor Lohoefener's discussion in class about her own experience with her son using words that fall under this language. All in all, this brain rot language is a unique formal system that bridges the gap between internet culture, Generation Z, and other groups of people who are unfamiliar with brain rot.

$L = \{ vwxd^{j}wyw^{k}v^{i}t^{k} + z \mid i, j, k \in \{0,1\}$, d ∈ {'s}, w ∈ { _ }, x, t ∈ {skibidi-toilet, fanum-tax, sigma, chat, quandale-dingle, glizzy, jit, karen, yns, opp, simp, aura, bop, goat, session, baby, oil, taper, fade, rizzler}, y ∈ {rizz, cook, glaze, mog, mogging, mew, ratio, cooked, yap, fade, glazing}, z ∈ {ratio, simp, sus, aura, glazing, cook}, v ∈ {the}}

∑ = {skibidi-toilet, fanum-tax, rizz, sigma, cook, chat, quandale-dingle, glaze, glizzy, jit, karen, yns, mog, mogging, mew, opp, ratio, cooked, simp, sus, yap, aura, negative, bop, goat, session, baby, oil, low, taper, fade, rizzler, glazing, d, ed, _, the, bro, 's}