Journal of Philosophical Investigations
Print ISSN: 2251-7960 Online ISSN: 2423-4419
Homepage: https://philosophy.tabrizu.ac.ir

Understanding Brain Rot:
a processual and philosophical analysis through Avicenna's hierarchy of intellect

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Article Info

Article type:
Research Article

Article history:
Received 01 June 2025
Received in revised form 25 June 2025
Accepted 30 June 2025
Published online 14 February 2026

Keywords:
Brain Rot, Cognitive Decline, Avicenna, Hierarchy of Intellect, Epistemology, Digital Consumption.

ABSTRACT

This study explores the concept of brain rot and its correlation with Avieeaaa' fuur tt ggss ff intellect, offering a philosophical and normative perspective on cognitive decline in the digital age. By mapping the stages of brain rot—excessive exposure to digital content, mediating factors, cognitive dysfunction, and chronic cognitive decline—onto Avicenaa's hierarchy, this study reveals how digital overstimulation hinders intellectual progression. The research highlights the stagnation of gggii tiv fccultissfffrmmth sss siv cccc taaliz stat ff ʿAql Hyyll nnī (potential intellect) to the irreversible decline seen in *ʿAql Mustafād* (acquired intellect). Mediating factors such as digital addiction, information overload, and mental fatigue exacerbate this stagnation, preventing the activation of higher cognitive functions and reflective reasoning. The study also integrates recent literature on brain rot and digital dementia to provide empirical support for the mapping process, demonstrating how excessive digital exposure disrupts intellectual growth and rational autonomy. These findings suggest the need for philosophical reflection on cognitive decline and underscore the importance of addressing the challenges posed by digital media in fostering intellectual engagement and development.

Cite this article: Farma, T. W.; Hamid, A. R.; Akmansyah, M. & Afif Anshori, M. (2026). Understanding Brain Rot: a processual and philosophical analysis through Aveeenna' hierarchy of intellect. *Journal of Philosophical Investigations*, 20(54), 503-520. https://doi.org/10.22034/jpiut.2025.67650.4130

Publisher: University of Tabriz.

Intruduction

In aa ttt aa s aa xx rrr ' W o..hhe ee a,, eeeeciing goggggg cccc e a cognitive decline linked exceiii ee ggg.a cttt e cmmmmmm eee rrr eeee "*the supposed deterioration of a person's mental or intellectual state… as the result of overconsumption of material (now particularly online content) considered to be trivial or unchallenging* (Oxford University Press, 2024). This phenomenon is particularly associated with younger generations whose frequent engagement with fragmented social media content weakens attention spans, memory, and critical thinking (Kukreja et al., 2025, 1; Yousef et al., 2025, 2).

These cognitive impairments parallel digital dementia, a condition characterized by declining memory, attention, and decision-making capacity due to prolonged screen exposure (Ali et al., 2024, 3–5). To better understand this modern cognitive stagnation, cccc eaaa's rrrr -stage intellectual framework—from *ʿAql Hayūlānī* (potential intellect) to *ʿAql Mustafād* (acquired intellect)—offers a philosophical lens to examine how digital overstimulation may obstruct intellectual growth and rational autonomy (Fazeli, 2019, 143–144).

This study views brain rot as a contemporary cognitive crisis in which habitual exposure to superficial content prevents the intellect from advancing beyond its latent potential. Such stagnation, consistent with *ʿAql Hayūlānī*, reflects a failure to actualize higher faculties like independent reasoning (*ʿAql Bi al-Fiʿl*) (Hennig, 2022, 185; S,,,,,,,,,, ,, 44–246). Beyond its neurological or psychological dimensions, this issue also represents an epistemological and philosophical challenge.

y eaaa' eeeaacchy eaannnnm tt . a aalleee ttt ellec czzzzzzii Ieeegraii cccc enna's ce eeeearc baa ttt and digital dementia, it explores how digital overstimulation hinders intellectual development. The hypothesis posits that brain rot reflects stagnation at *ʿAql Hayūlānī*, with factors like digital addiction and information overload preventing activation of higher faculties and leading to cognitive paralysis.

1. Literature Review

1-1. Conceptual Background of Brain Rot

Brain rot refers to the cognitive deterioration resulting from overconsumption of trivial, unchallenging digital content, leading to declines in memory, attention, and reflective thinking. Oxford University Press (2024) eeeeee tt a "*deterioration of a person's mental or intellectual state,*" primarily caused by excessive exposure to shallow online material. The term underscores the cognitive consequences of constant digital media use, particularly through platforms like social media that promote easily digestible content without engaging deeper cognitive faculties.

Henry David Thoreau, in Walden (1854), employed brain rot as a metaphor for intellectual decay brought about by lives consumed with materialism and superficial pursuits. Critiquingssssss ssssiizeccccccy' eoooooooooeuuuuuuwwwwwwwwcccccccc y:

> *To have his brain-rot and dry-rot, when he is half rotten ere he is ripe,*
> *must be a curse, not a blessing.* (Thoreau, 2006, 20)

rrrr eac’cccccccccceeeeeeeeeecteual passivity resonates with the digital age, where the passive consumption of fragmented media fosters similar cognitive stagnation, particularly among younger generations. His metaphor remains strikingly relevant today, offering enduring insight into the dangers of intellectual shallowness.

In contemporary usage, brain rot serves as a metaphor for the cognitive stagnation linked to excessive digital consumption. The terme defined by (Oxford University Press, 2024)—reflects rising concerns about the intellectual costs of shallow online engagement. Its popularity has surged in digital culture, especially on platforms like TikTok, where use of the phrase rose 230% between 2023 and 2024. While not a formal medical diagnosis, brain rot has become a widely recognized cultural symbol, expressing shared anxieties over the mental toll of superficial digital media.

Ultimately, in the digital age, brain rot represents more than cognitive decline; it symbolizes the loss of deeper intellectual engagement in a world of fragmented information. Its growing prevalence highlights the urgent need for more mindful media consumption and intentional cultivation of reflective thought, particularly among younger audiences immersed in digital content.

1-2. Brain Rot in Academic Literature

Yousef et al., (2025, 2–3) describe brain rot as a neurocognitive disorder caused by excessive digital consumption, marked by progressive executive dysfunction (memory, attention, decision-making), mental fatigue, emotional desensitization, and dopamine-driven reward system overstimulation. They recommend digital mindfulness, limiting instant content, and engaging in offline activities (2025, 6)

Kukreja et al., (2025, 1–2) emphasize brain rot as both cognitive and emotional decline, with mental fatigue, apathy, and anxiety stemming from passive digital media use. They call for mental health interventions addressing digital addiction, depression, and anxiety, framing brain rot as a significant social concern.

Ali et al., (2024, 3–5) link excessive digital device use to cognitive overload and digital dementia, noting impaired memory, reflective thinking, and growing dependency on external stimuli driven by dopamine-reward loops.

Together, these studies present brain rot as an interdisciplinary issue of cognitive, emotional, and social decline due to excessive digital exposure, reinforcing the need for further academic and clinical focus.

1-3. Comparing Brain Rot and Digital Dementia

The terms brain rot and digital dementia both describe the harmful cognitive effects of excessive digital media use, particularly among younger generations. While both address cognitive decline, they differ in origin, clinical framing, and academic focus. Brain rot is a rhetorical term, popularized by digital culture and officially recognized by (Oxford University Press, 2024). In contrast, digital dementia was introduced by neuroscientist

Spitzer (2012) to describe clinically observable cognitive impairments from technology overuse.

Table 1. *Comparison Between Brain Rot and Digital Dementia*

Aspect	Brain Rot	Digital Dementia	Sources
Definition	The deterioration of mental or intellectual capacity caused by the overconsumption of trivial and shallow digital content.	A neurocognitive disorder resembling dementia caused by excessive use of digital technologies.	Oxford University Press (2024); Spitzer, (2012, 32)
Clinical Status	Non-clinical; rhetorical and cultural concept not recognized as a medical diagnosis.	Clinical; studied within neurology and cognitive neuroscience as a possible disorder.	Kukreja et al., (2025, 2); Ali et al., (2024, 3–5)
Origin of Term	Emerged from digital youth culture and popular discourse; declared Oxford Word of the Year in 2024.	Coined by Manfred Spitzer in 2012 in the context of neuroscience and child development.	Oxford University Press (2024); Spitzer, (2012, 31)
Academic Focus	Symbolic and discursive; emphasizes cultural critique of fast, passive content consumption.	Neurocognitive and clinical; focuses on functional and structural brain changes due to digital overload.	Kukreja et al., (2025, 1); Spitzer, (2012, 31); Ali et al., (2024, 4)
Primary Risk Factors	Doomscrolling, social media addiction, short-form content (e.g., TikTok, memes), superficial engagement.	Early-age screen exposure, multitasking with multiple devices, technology dependency.	Yousef et al., (2025, 2); Spitzer, (2012, 31); Ali et al., (2024, 4–5)
Typical Symptoms	Mental fatigue, attention fragmentation, emotional desensitization, reduced critical reflection.	Impaired short-term memory, decreased concentration, disrupted executive functioning, poor self-regulation.	Kukreja et al., (2025, 1–2); Ali et al., (2024, 3); Spitzer, (2012, 32)
Theoretical Basis	Cognitive overload, dopamine-driven behavioral loops, passive consumption theory.	Synaptic degradation, neuroplasticity decline, external memory substitution.	Yousef et al., (2025, 3); Spitzer, (2012, 32); Ali et al., (2024, 3–5)
Target Population	Teenagers and young adults who are active users of fast-paced digital entertainment and social media platforms.	Children, adolescents, and adults exposed to chronic multitasking and long hours of scree in time.	Yousef et al., (2025, 4); Spitzer, (2012, 31–32); Ali et al., (2024, 5)
Related Studies	Yousef et al. (2025); Kukreja et al. (2025); Oxford University Press (2024).	Ali et al. (2024); Spitzer (2012).	—
+Purpose of the Term	To raise public awareness of mental degradation linked to uncritical, high-frequency digital media use.	To identify and clinically intervene in cognitive decline caused by technology overuse, especially in young populations.	Kukreja et al., (2025, 2); Spitzer, (2012, 31); Ali et al., (2024, 4–5)

1-4. Processual Mechanism of Brain Rot

Brain rot develops gradually through the accumulation of cognitive and neuropsychological disruptions caused by excessive digital exposure. This degradation unfolds in four stages:

a. First Stage: Excessive Exposure to Digital Content

This stage involves high, compulsive digital consumption—doomscrolling, zombie scrolling, and addiction to social media and light content. Such habits promote fast, shallow rrrrr rrrrrrr rrraee ee aee baass's capactty rrr reeeeciiee, sss eeeeeee iii (Yousef et al., 2025, 2). Exposure to trivial content fragments attention and reduces cognitive control (Ali et al., 2024, 3). Culturally, brain rot has come to represent cognitive fatigue from unproductive digital interaction (Oxford University Press, 2024).

b. Second Stage: Mediating Factors

Here, mediating factors like information overload, sleep disturbance, anxiety, and chronic stress magnify harm (Ali et al., 2024, 3 4). Reduced neuroplasticity, fueled by sedentary lifestyles and lack of deep mental engagement, further worsens cognitive strain (Ali et al., 2024, 5). Intellectual passivism emerges as individuals rely on digital media as an external memory, disengaging critical thinking (Yousef et al., 2025, 6). Thoreau warned iii eecay Wa,,,,, ,eeccgggggggt a "aaann-rot and dry-"""""rr a ccc aatttt iiee without intellectual direction (Thoreau, 2006, 20).

c. Third Stage: Cognitive Dysfunction

Clinical symptoms surface: impaired short- and long-term memory, weakened concentration, and diminished executive functions like decision-making and problem-solving (Ali et al., 2024, 6–7). Kukreja et al., (2025, 2) describe this as the stage where individuals lose the drive for deep thinking, critical engagement, or intellectual exploration. This dysfunction reflects a broader digital culture of information without understanding and connection without meaning.

d. Final Stage: Brain Rot as a Chronic Condition

This stage marks chronic cognitive decline: loss of critical thinking, impaired memory, and difficulty handling intellectual complexity (Ali et al., 2024, 8–9). Brain rot at this stage aligns closely with digital dementia, where compulsive device use erodes executive function (Ali et al., 2024, 4; Yousef et al., 2025, 7). Thoreau captured this intellectual decay as being "aa eeeee eeoœeppe""a ssss ff potential caused by oversimplified living (Thoreau, 2006, 20). Brain rot thus signals not just cognitive decline but a broader existential crisis—the erosion of thinking as a defining human trait.

Table 2. *Processual Mechanism of Brain Rot*

Stage	Description	Symptoms & Characteristics
Excessive Exposure to Digital Content	High, compulsive, and uncontrolled digital use.	Doomscrolling, zombie scrolling; attention fragmentation; shallow content consumption.

Mediating Factors	Mechanisms amplifying harm (stress, neurobiology, psychology).	Sleep disturbances; reduced neuroplasticity; intellectual passivism.
Cognitive Function Impairment	Accumulation leads to damage in memory, attention, reflection.	Memory impairment; weakened executive function; reduced reflective capacity.
Brain Rot (Chronic Condition)	Chronic cognitive decline and intellectual degeneration.	Digital dementia; abstract thinking decline; critical thinking loss.

1-5. Avicenna's Hierarchy of Intellect

Ibn Sina (Avicenna, 980–1037), a Persian scholar, significantly shaped both Islamic philosophy and medieval European thought through his work in philosophy, medicine, and logic. In his epistemology, Avicenna described knowledge as developing through the interaction of sensory perception, imagination, and rational intellect. He proposed that the soul advances toward truth by gradually activating its cognitive faculties, culminating in a four-level hierarchy of intellect: *ʿAql Hayūlānī* (potential intellect), *ʿAql Bi al-Qūwah* (possible intellect), *ʿAql Bi al-Fiʿl* (actual intellect), and *ʿAql Mustafād* (acquired intellect).

***a. ʿAql Hayūlānī* (Potential Intellect)**

The first stage, *ʿAql Hayūlānī* eeeeeee llll ' eea aceeeeedkeeeee eee this level, the intellect has no actual knowledge but is fully prepared to receive it. As Avicenna explains in *Al-Najāt*:

> فالعقل الهيولانى هو الذى لم يعقل شيئاً بعد، ولكن له الاستعداد لأن يعقل بالفعل، وهو فينا من حيث كوننا إنساناً.
>
> The potential intellect is that which has not yet actualized anything, but has the readiness to actualize knowledge. It is in us as far as we are human))))))))))))))))) .

Avicenna likened this intellect to *prima materia* in Aristotelian thought) entirely passive and formless, yet capable of receiving all forms. He further clarifies in *Al-Ishārāt wa al-Tanbīhāt*:

> العقل الهيولانى لا يكون فعلاً موجوداً، ولكن له إمكانية فى استقباله جميع الأمور.
>
> The potential intellect does not yet exist as an actual form, but it has the potential to receive all forms."))))))))))))))))

Black, (1990, 87))) giii g ee rr ttt… e' wwww eeee aaiii ttt y, cccc eaaa aaw *ʿAql Hayūlānī* as an existential phase of the rational soul, imbued with metaphysical purpose and a directed goal. Similarly, Rahman, (1952, 16) interprets this stage as the starting point eeeeeeeeeeeeeeeeeeeywwwaiiiiii iiii eeeicttyaaaii eeeuuuuuuutttttt t llec oo…

In modern contexts, Mahmudah & Suyadi, (2020, 125) associate *ʿAql Hayūlānī* with the cognitive readiness found in early childhood, where intellectual potential is gradually actualized through structured learning.

Thus, *ʿAql Hayūlānī* rrr e ii cccc enna'.. iiii ttt ellec and ethical development.

b. *ʿAql Bi al-Qūwah* (Possible Intellect)

eee eec aaage iii ceaaa' eeeaarchy *ʿAql Bi al-Qūwah* eeeeeee ttt ellec ' state of readiness to grasp abstract concepts. At this level, the intellect has not yet fully actualized knowledge, but it can do so when external conditions allow. Avicenna describes this stage in *Al-Najāt*:

> وهو الذى صار له أن يعقل الصور العقلية من غير أن يعقلها بعد، ولكن يمكنه أن يعقلها متى شاء.
>
> *It is the intellect that has the potential to understand intellectual forms but has not yet understood them; it can understand them whenever it chooses*)))))))))))))))) .

Here, the intellect begins to move beyond pure potential, although it still relies on external input) such as sensory data, imagination, and experience—to engage with knowledge. In *Al-Shifā': al-Nafs*, Avicenna notes:

> العقل بالقوة يحتاج إلى الإحساس والخيال والتجربة حتى يصير بالفعل.
>
> The possible intellect requires sensation, imagination, and experience in order to become actualized)))))))))))))))))

Black, (1990, 89) explains that this stage marks a crucial transition between the lower faculties of the soul and pure intellect. It is at this point that the intellect begins abstracting universal ideas from sensory input. Mahmudah & Suyadi, (2020, 126) link *ʿAql Bi al-Qūwah* to the early stages of learning readiness, where the capacity for rational thought begins to take form but is not yet independent.

In summary, *ʿAql Bi al-Qūwah* eeeec ttt ellec ' aciiee rr eaareeee ss—a state that bridges raw potential and fully actualized cognition.

c. *ʿAql Bi al-Fiʿl* (Actual Intellect)

At the *ʿAql Bi al-Fiʿl* stage, the intellect achieves full actualization and can engage in independent reasoning, critical analysis, and reflection. Unlike the previous stages that depend on sensory or imaginative input, the actual intellect operates autonomously. Avicenna defines this stage in *Al-Najāt*:

> العقل بالفعل هو الذى حصلت فيه الصور العقلية حصولاً تاماً، وهو يستعملها كلما شاء بلا عائق.
>
> The actual intellect is the one in which intellectual forms have been fully acquired, and it can use them whenever it wishes without impediment)))))))))))))))) .

In *Al-Shifā': al-Nafs*, Avicenna adds:

وإذا صارت الصور موجودة فيه بالفعل، كان عالماً بها، وكان العقل الذى هو فيه بالفعل.

> When the forms exist in it actually, it is the one that knows them, and it is the intellect that is in the state of actuality 1111111111111111.1

According to Black, (1990, 89), this stage marks a critical shift where the intellect becomes self-sufficient, able to reason and judge without reliance on external inputs. Nasr, (1993, 228) sees this as the beginning of genuine philosophical consciousness, where universal truths are apprehended directly. Hennig, (2022, 190) emphasizes that this stage embodies the intellect's recognition of its own autonomy and identity, forming the basis for self-intellection.

Thus, *ʿAql Bi al-Fiʿl* represents a pivotal phase where the intellect moves from potential and dependency to active, self-aware rational engagement.

***d.* ʿ*Aql Mustafād* (Acquired Intellect)**

ʿAql Mustafād eerr eeesss gggbe eeee ff iii ceaaa's ttt ellec acchy, where the intellect reaches full perfection by directly receiving truth from the *ʿAql Faʿʿāl* (Active Intellect). At this stage, knowledge is no longer gained through reasoning alone but through direct, intuitive apprehension. Avicenna describes this in *Al-Ishārāt wa al-Tanbīhāt*:

فالمستفاد هو العقل الذى حصل فيه بالفعل صور الأشياء من المعقولات، وصار بها عاقلاً بالفعل، وكان مبدأها العقل الفعّال.

> The acquired intellect is the intellect that has fully received the intellectual forms, thus becoming actualized, with the source of these forms being the Active Intellect 99999999999999.9

This stage reflects the unity between the knower and the known, where the forms are internalized as part of the intellect itself. Rahman, (1952, 32) sees this as the culmination of both intellectual and spiritual development, where the soul reaches illumination and nearness to the transcendent principle. Nasr, (1993, 2339234) describes it as the point where knowledge and being are no longer separate, and the individual lives the truth rather than merely contemplating it. Hennig, (2024, 70) highlights that while the acquired intellect depends on the Active Intellect, it also demonstrates full openness to receiving intelligibles, marking intellectual completion.

In essence, *ʿAql Mustafād* represents the integration of epistemology, metaphysics, and ethics, where the intellect not only knows truth but embodies it.

Table 3. *The Four Stages of the Hierarchy of Intellect in Avicenna's System*

Stage	**Description**	**Key Features**
ʿAql Hayūlānī (Potential Intellect)	The initial stage where the intellect has the potential to acquire knowledge but has not yet actualized any forms.	- Passive state awaiting intellectual activation - Receptive to sensory and cognitive inputs

ʿAql Bi al-Qūwah (Possible Intellect)	A transitional stage where the intellect is capable of understanding abstract forms but has not yet actualized them.	- Active readiness to process intelligibles - Dependent on sensation, imagination, and experience
ʿAql Bi al-Fiʿl (Actual Intellect)	The stage where the intellect fully actualizes its potential, engaging in independent reasoning and reflection.	- Full autonomy in intellectual activity - Capable of abstract reasoning, synthesis, and judgment
ʿAql Mustafād (Acquired Intellect)	The highest stage, where the intellect is illuminated by the Active Intellect and achieves unity with the forms.	- Intellectual perfection; metaphysical union with knowledge - Knowledge received directly from the Active Intellect

cccc eaaa's rrrr acchy ff ttt e..ec eeeeeeeeea ooodddddrrawwwkkk rrr nneeaaaannnng eee progression from passive potential to active intellectual actualization. His model underscores the vital role of reflection and reasoning in cognitive development, illustrating the evolution from latent capacity to autonomous, rational thought. Through the four stages—*ʿAql Hayūlānī* (potential intellect), *ʿAql Bi al-Qūwah* (possible intellect), *ʿAql Bi al-Fiʿl* (actual intellect), and *ʿAql Mustafād* (acquired intellect)—Avicenna shaped both Islamic and Western philosophical thought on knowledge and cognition.

In the digital age eee ee aaiii ee nrrrr mmmmmmm iiii aa eaaa' framework remains strikingly relevant. The prevalence of shallow, rapidly consumed digital content—especially via social media—impedes intellectual growth and reflective capacity, stalling progress through the intellectual stages Avicenna outlined. Re-engaging with his model offers valuable insight into overcoming the cognitive challenges posed by digital overexposure. It highlights the need to foster environments that support deep intellectual engagement, reflection, and sustained cognitive development essential for higher-order iii gggggggggggy'rrrrr rr.

1-6. Previous Studies on the Concept of Intellectual Hierarchy and Research Gaps

cccc eaaa' ooceeeee ff rrrr archy o ttt ellec aa eeen widely studied across epistemology, ethics, psychology, and, more recently, cognitive science and Islamic education. His classification—from *ʿAql Hayūlānī* (potential intellect) to *ʿAql Mustafād* (acquired intellect)—continues to inform discussions on cognition, learning, and spiritual development. Core texts such as *Al-Najāt*, *Al-Shifā'*, and *Al-Ishārāt wa al-Tanbīhāt* provide the foundation for thttttteerr y'rrrrrrr rr e.....

. eeeaa iiiii i s exeeeeeetee aaaa l a etttt eii c aeeec o cccc eaaa's. meee Fazeli, (2019, 143–147) highlights the practical intellect (*Al-ʿAql al-ʿAmalī*) as a rational faculty essential for moral judgment and action, challenging views that reduce it to mere motivation. Hennig, (2022, 184–191) links *ʿAql Bi al-Fiʿl* to self-reflection and human consciousness, eeee cconnng hhe llll ' ieeeeeeeeeence rr llllll l facttt a separate study, Hennig, (2024, 65–70) discusses the *ʿAql Faʿʿāl* (Agent Intellect) as the completing cause in the ttt ellece'eeeeeeeeeaaaaaaeeeeffecii...

Modern interpretations include Jamali et al., (2019, 2–4), ttt err a cccc eaaa' metaphysical dualism with Bohmian quantum mechanics, proposing a modified quantum potential to explain mind-brain interaction without reducing mental processes to physical determinism. Momeni, (2021, 346–350) aeee aaa cccc eaaa's syhhhesss eecceiii a abstraction parallels contemporary cognitive psychology models.

In education, Mahmudah & Suyadi, (2020, 125–127) cccc enna' hrrrarchy oooo Bmmm'maa xmmmym linking *ʿAql Hayūlānī* to basic cognitive awareness and *ʿAql Mustafād* eaa ceeaiiee. eeeeeeey. eee y deoo aaaaaaaa cccc enna's rrrrr r intellectual and moral growth in Islamic educational contexts.

Despite this rich scholarship, a key gap ma:::: ddddy aa eeeeclly iieee cccc eaaa's theory of intellect to modern phenomena such as *brain rot*—the cognitive degradation caused by excessive digital content consumption. While *brain rot* ii rr cccc eaaa's description of intellects that fail to actualize potential, no literature has mapped it onto his intellectual stages. This study addresses that gap by interpreting *brain rot* as a failure in ttt ellec czzzzzz.. iiiii ii cccc eaaa' faaee rrr It ooooooos ogttt deciiee from digital overstimulation leads to stagnation at *ʿAql Bi al-Qūwah* or *ʿAql Bi al-Fiʿl*, obstructing progress toward *ʿAql Mustafād*. This approach bridges classical Islamic epistemology with contemporary cognitive ethics and media studies.

1-7. Why Choose Avicenna's Concept of the Hierarchy of Intellect?

cccc eaaa' eeeaarchy ff ttt ellec fffe a syeee awwwo rrr nneeaaaannnng development of human cognition—from potentiality to full intellectual actualization. His progression—from *ʿAql Hayūlānī* (potential intellect) to *ʿAql Mustafād* (acquired intellect)—is particularly effective for analyzing modern challenges like brain rot, a form of cognitive stagnation linked to excessive digital consumption. Unlike the models of Mulla Sadra, Al-Farabi, or Al-Ghazali, which focus primarily on metaphysical, ethical, or spiritual mmeennnnnmmcccc eaaa' faawwwkkkeeeeclly aeeeesee cccciiaaa eeaaaaaiio ttt ellec in contexts of digital passivity.

Sadra, (1981, 57) cerrrr e llll ' aaaa hhysical ascent toward divine union. In *Al-Asfār al-Arbaʿah* ee rr tte *"The intellect, in its highest form, is a direct reflection of divine truth and participates in the unity of being."* . lll e tttttt tt lly ffff ,,,,, ,Sarr a' not engage the practical cognitive impediments caused by digital overstimulation.

Al-Farabi, (1985, 75) ezzzzzzz z eea ' iii ca a iiii iica eeee I *Al-Madīna al-Fāḍilah* ee *The rational soul must govern the body and guide it towards knowledge and virtue, as it is the essence of human perfection*""ggggggggg aaeeeeeeerrr aaaa rrr ,,,,,,, , Al-Faaaaa'aaaaaaaaaatttt eesssycgggggcannnnnnnneeeddddddddbooooottt vveeeeeeeeeeeeeeee brain rot.

Al-Ghazali, (1997, 112), in *Tahāfut al-Falāsifah* seeee *"The intellect alone cannot lead to true knowledge; it must be accompanied by the purification of the soul and a connection with the divine."*WWl eiigggraiigg eiii caaammmyiii cmmlll -aaa zaii'fffaawwwddddddtttttt t provide a developmental theory suited to diagnosing intellectual inactivity or digital-induced stagnation.

2. Avicenna's Cognitive Framework and Its Modern Applicability

By caaaaaaaaaaaaenna' lllllllll llllllll llcciiincccccccccccees—*ʿAql Hayūlānī*, *ʿAql Bi al-Qūwah*, *ʿAql Bi al-Fiʿl* a AA tttt aāā ıīı āā –247)—that are well suited for diagnosing failures of intellectual actualization. His framework offers valuable insights into cognitive decline caused by digital overconsumption.

Recent scholarship underscores this relevance: Mahmudah & Suyadi, (2020, 125–127) alll y iii ceaaa' Bmmm'maa xmmmym I ccc aii Fazeli, (2019, 143–147) explores its ethical dimensions; and Hennig, (2022, 184–191, 2024, 65–70) elaborates on self-ttt elleciiaaaarrrr eaeee'eeeeeeeegccalllllllll llllll

l lll e rrrrr rllll iiiiii i a ccc iiii g enna' rrrr archy of intellect offers the most precise and applicable structure for analyzing the disruption of intellectual development in the digital age.

3. Materials and Methods

This qualitative study employs conceptual analysis and literature review to map brain rot on cccc eaaa' rrrr archy. ttt ellec exaii gggg exceiii ee gggtta exeeeeeeessssssss intellectual maturation and rational autonomy. Data were collected from primary sources on brain rot and digital media consumption (Ali et al., 2024; Kukreja et al., 2025; Oxford University Press, 2024; Yousef et al., 2025) a cccc eaaa' ddddddiiaaa xxxss , 1968, 1985). Secondary sources (Black, 1990; Hennig, 2022, 2024; Mahmudah & Suyadi, 2020; Momeni, 2021) provided contemporary context. Literature was sourced via major academic databases (Google Scholar, Scopus, PubMed, JSTOR) using targeted keywords eeeeeeccccccccccaaa'ttttt t llecttteerr yccogttt .... ddddddddddddttammmmiiiia.

Thematic and comparative analyses were applied to identify conceptual links between aaa aaage a cccc eaaa' ttt ellectual hierarchy, focusing on how digital overstimulation hinders cognitive progression. No statistical tools were used, as the study is conceptual. Findings are presented in tables that illustrate the alignment of brain rot stages eeeeeeeeeeeee' rraee work.

4. Results

y eeeee e seeee rr a eeeeaaa' ii eaacchy ff ttt ellec rraii n brain rot as a modern crisis of intellectual actualization. The analysis shows a strong crrr eddddddcce eeeeee ggggge o rr a a vv eeeaaa' ttt ellectual development—from *ʿAql Hayūlānī* (potential intellect) to *ʿAql Mustafād* (acquired intellect). Excessive digital consumption was found to cause intellectual stagnation, with each stage of brain rot reflecting disruption in the natural progression of cognitive faculties.

The findings also confirm the role of mediating factors such as digital addiction, mental fatigue, and information overload, which hinder intellectual maturation and block aaaaccce vv eeeaaa' ttage Rece siiii e aaannrot, digital dementia, and the cognitive effects of excessive digital use further support these conclusions. The evidence illustrates how digital overstimulation produces cognitive dysfunctions that mirror the

ggggaii llll cccc eaaa' hhh asizing the impact of external distractions on intellectual potential.

4-1. Stage 1: Excessive Exposure to Digital Content

The first stage of brain rot corresponds to *ʿAql Hayūlānī* eeeeeeea ttt ellec cccc eaaa' hierarchy. This phase represents excessive digital consumption, where the intellect remains passive and unactualized, receptive but inactive. Overexposure to trivial digital content fragments attention, induces cognitive overload, and prevents meaningful engagement with complex tasks.

Yousef et al., (2025, 2) report that excessive consumption of digital content weakens attention and memory, characteristic of an intellect that fails to activate. Ali et al., (2024, 3) similarly describe how trivial information consumption overwhelms cognitive resources, keeping the intellect in a passive state.

Chiossi et al., (2023, 4) find that short-form videos impair prospective memory and eeccce hhe aaa ' lll tty tttt a ttt ellecllll Skulmowski & Xu, (2022, 174) observe that interactive media increase extraneous cognitive load, diverting resources from deeper processing. Aitken et al., (2024, 10) note that social media consumption increases cognitive load and alters brain activity, interfering with higher cognitive functions.

ee nnnnnm ciiii ttttt ty rr a a iii ggggg aa yll ā where excessive digital exposure leaves cognition fragmented, attention overwhelmed, and intellectual potential unrealized.

4-2. Stage 2: Mediating Factors

The second stage of brain rot reflects the impact of mediating factors such as digital addiction, anxiety, and information overload, which intensify cognitive decline. This stage corresponds to *ʿAql Bi al-Qūwah* (iiiii iiii ttt ellec cccc enna' eeeaaccchy hh eee eee intellect, though receptive, remains dependent on external stimuli to function. Overwhelming digital input increases mental fatigue and cognitive strain, hindering the development of higher cognitive functions.

Yousef et al., (2025, 6) report that constant digital engagement depletes cognitive resources and undermines reflective thinking. Ali et al., (2024, 5) find that continual exposure to shallow content reduces the capacity for critical thought, as intellectual faculties become reliant on external digital input rather than activating independently.

Thoreau, (2006, 20) metaphorically describes this passive intellectual state, where external distractions obstruct reflective growth. Shahrzadi et al. (2024) identify information overload as a key source of cognitive strain and decision-making fatigue. Similarly, Rosen et al., (2018, 18) highlight how anxiety from multitasking and social media weakens focus, while Zeyrek et al., (2024, 5) show that smartphone addiction contributes to cognitive fatigue and poor sleep, deepening intellectual passivity.

These mediating factors collectively reinforce the dependency of the intellect at this stage, preventing progress beyond *ʿAql Bi al-Qūwah* and blocking intellectual autonomy and deeper reasoning.

4-3. Stage 3: Cognitive Dysfunction

In the third stage of brain rot, cognitive dysfunctions—including memory impairment, attention deficits, and weakened executive functions—begin to emerge. This stage corresponds to *ʿAql Bi al-Fiʿl* aac ellec cccc eaaa' eeeaarchy weeee ttt ellec faculties are expected to engage in independent reasoning and reflection. However, relentless exposure to fragmented digital content obstructs the full actualization of these faculties.

Kukreja et al., (2025, 2) and Ali et al., (2024, 6 7) describe how excessive digital use leads to impairments that limit deep engagement with information and hinder reflective reasoning. Yousef et al., (2025, 2) emphasize that individuals overwhelmed by digital content struggle to concentrate on complex tasks, illustrating how fragmented media consumption disrupts intellectual processes at this stage.

Supporting this, Muppalla et al., (2023, 6) report that chronic screen exposure impairs memory and attention, undermining academic performance and intellectual focus. Khalaf et al., (2023, 9) associate social media overuse with increased mental distress and behaviors that reflect a breakdown in reflective capacity. Bell et al. (2022) note that without proper intervention, cognitive remediation efforts struggle to restore the intellectual functions compromised by digital overload. Similarly, León Méndez et al. (2024) find that internet and smartphone addiction impair prefrontal cortex activity essential for reasoning and decision-making, reflecting stagnation at *ʿAql Bi al-Fiʿl*.

These findings collectively confirm that Stage 3: Cognitive Dysfunction aligns with *ʿAql Bi al-Fiʿl*, where excessive digital exposure blocks the development of independent reasoning, reflection, and critical thought that define this intellectual stage.

4-4. Stage 4: Chronic Cognitive Decline (Brain Rot)

The final stage of brain rot represents chronic cognitive decline, where individuals lose the capacity for higher-order thinking and reflective reasoning. This stage corresponds to *ʿAql Mustafād* (acqrrr e ttt elccc iii ceaaa' rrrr acchy hh eee ttt ellec cttt llll ll be fully actualized. However, sustained exposure to shallow digital content obstructs this potential, resulting in lasting intellectual stagnation.

Ali et al., (2024, 8–9) and Yousef et al., (2025, 7) describe how prolonged digital device use leads to cognitive decline that is difficult to reverse, marked by impaired memory, attention, and decision-making—abilities essential for independent reasoning at this stage. Thoreau, (2006, 20) metaphorically warns of premature intellectual decay, comparing it to a mind that deteriorates before it matures, echoing how overstimulation prevents the intellect from reaching full development.

Further evidence reinforces this alignment. Manwell et al., (2022, 15) report that long-term screen exposure during critical periods accelerates cognitive decline, particularly impairing memory and executive functions—hindering the deep reasoning expected at *ʿAql Mustafād*. Musa et al., (2023, 324) identify digital amnesia, where reliance on devices for information storage diminishes memory retention and depth of processing. Chen, (2025, 9)

highlights that excessive digital dependence risks erasing essential cultural and historical knowledge, reflecting the loss of intellectual depth characteristic of stagnation at this level.

In sum, this stage illustrates how excessive digital exposure leads to irreversible cognitive decline, blocking the full actualization of intellectual faculties and diminishing critical eeaiiii ng a reeeeciiee ggggggggas eecceeee cccc eaaa's ii gee aaage ttt ellecllll development.

Table 4. *Mapping the Stages of Brain Rot onto Avicenna's Hierarchy of Intellect*

Stage of Brain Rot	**Corresponding Stage in Avicenna's Hierarchy**	**Key Features**	**Symptoms**
Excessive Exposure to Digital Content	*ʿAql Hayūlānī* (Potential Intellect)	Passive intellectual state; unactualized potential	Attention fragmentation; reliance on superficial content
Mediating Factors	*ʿAql Bi al-Qūwah* (Possible Intellect)	Intellectual readiness; dependent on external stimuli	Mental fatigue; anxiety; difficulty focusing on complex tasks
Cognitive Dysfunction	*ʿAql Bi al-Fiʿl* (Actual Intellect)	Independent reasoning; reflection; critical thinking	Impaired memory; attention deficits; executive dysfunction
Chronic Cognitive Decline (Brain Rot)	*ʿAql Mustafād* (Acquired Intellect)	Intellectual actualization; union with intelligible forms	Loss of critical thinking; inability to engage with complex information

5. Discussion

5-1. Interpretation of Results

The findings of this study highlight how brain rot, as a modern cognitive phenomenon, llttttt aa a aalleee ttt ellec czzzzzzii iiee eaaa' rrrr archy o ttt ellec This mapping offers a new philosophical lens for understanding how excessive digital consumption disrupts the natural progression of human reasoning and reflection. By integrating classical epistemology with contemporary cognitive concerns, the results underscore the urgent need to address the intellectual stagnation caused by digital overstimulation.

5-2. Comparison with Previous Research

The findings of this study align with prior research describing brain rot as cognitive decline resulting from excessive digital exposure. Yousef et al., (2025, 2), Kukreja et al., (2025, 1), and Ali et al., (2024, 3–5) report impairments in executive function, mental fatigue, apathy, and associations with digital dementia—conditions that parallel intellectual stagnation ac ge o cccc eaaa' rrrr acchy hh eee iiiii i clll eciieely ppp ss e of cccc eaaa's rrawwwkkk ttt errr et rrrrr rr cggttt dysccccii l gggtal overstimulation.

Prrrr ccrrrrr rrrrr rrrr ssceee eeleaacce cccc eaaa' eeee aaaannnng intellectual development and decline. Fazeli, (2019, 143–147) highlights its role in ethical reasoning; Hennig, (2022, 184–191, 2024, 65–70) focuses on critical reflection and

intellectual autonomy; while Jamali et al., (2019, 2–4), Momeni, (2021, 346–350), and Mahmudah & Suyadi, (2020, 125–127) demonstrate how external stimuli can impede progression from basic awareness to intellectual mastery.

5-3. Implications

This study identifies brain rot as a form of intellectual stagnation driven by excessive digital cmmmmmmm cccc bbccccccc naaaaa aaaa cce h cccc eaaa' aaæee intellect. The findings suggest the need for strategies that limit digital overstimulation and promote environments supportive of critical thinking and reflection. Integrating classical rrawwwo iiee cccc eaaa' cggttt eiii c fff e a ctttt uuciiee addressing digital-age cognitive decline.

Conclusion

This study provides a philosophical framework for interpreting cognitive decline in the gggta age by nnnnnnn tee eeeeeee rr a eaaa' eeeaarchy ttt ellec eee analysis demonstrates that excessive digital consumption disrupts the natural progression of intellectual development, limiting critical thinking, reflective reasoning, and intellectual ammmmmmmBy ddddgnng cccc eaaa's ccccccc rrrrrrrr r ry cggttt ccnnnce and media studies, this work underscores how medieval philosophy continues to offer insights into modern cognitive challenges.

The findings highlight the urgent need for multi-dimensional strategies that address the root causes of digital overstimulation. Educational institutions should move beyond conventional curricula to incorporate explicit training in critical reasoning, media literacy, and reflective practices. This would empower students to engage thoughtfully with digital content and build cognitive resilience against trivial and fragmentary information. Technology designers must assume ethical responsibility by developing platforms that encourage sustained attention and meaningful engagement—such as features that promote long-form reading, reflective interaction, and intentional pauses. Policy makers can play a vital role by supporting legislation that regulates manipulative design elements, funds digital well-being programs, and incentivizes technologies that foster intellectual development.

Future research should empirically validate the theoretical connections proposed in this study. This includes deploying neuroimaging techniques to map changes in brain activity aaaaaaaaaaaaaaggggggrrrrrr rrrlll aiiaaaacAAAAAAAAAAa'ccccccccccccccccgescccccccccc cc longitudinal cognitive assessments that track how varying digital consumption patterns affect intellectual maturation over time. Experimental studies could also explore how interventions—such as digital detox programs or mindfulness-based media consumption—impact the progression of reasoning and reflective capacities. In addition, interdisciplinary research uniting philosophy, cognitive neuroscience, psychology, education, and media ethics is essential to fully understand and counteract intellectual stagnation in the digital era.

By integrating classical philosophy with modern empirical inquiry, this study lays the foundation for developing evidence-based solutions to preserve and enhance intellectual

autonomy, critical thought, and reflective reasoning in a world increasingly shaped by digital technologies.

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