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GLOBAL ALGORITHMS, LOCAL CULTURES: Understanding Children's Content Legibility on Youtube

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Abstract

This study investigates the legibility of children's content on YouTube, examining how it is presented, created, and consumed within the context of participatory parenting and Youtube algorithm. Using Jürgen Habermas' public sphere framework, the research explores how digital platforms like YouTube shape participatory media practices, particularly in producing accessible and developmentally appropriate content for young audiences. The study adopts a purposive sampling method, by selecting videos based on YouTube's algorithmic recommendations to simulate the user experience and exploring how the algorithm presents what they deemed as children content. Then, YouTube API is used to provide a broader overview of children's content trends, while visual content analysis examines the visual and narrative elements that contribute to content legibility. Findings reveal that while YouTube serves as a collaborative affinity space for children's content, promoting informal learning and interaction, its algorithm-driven and commercialized nature often undermines content authenticity and diversity, raising concerns about its alignment with children's cognitive and developmental needs. The study underscores the importance of enhancing the legibility of children's content in Youtube's affordances to ensure it is engaging, educational, and appropriate for its intended audience.

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A. INTRODUCTION

The mass media has a significant influence on how society perceives and navigates life. Mass media refers to the channels or means of delivering messages to the masses (West, 2008). This makes the media an agent that shapes perceptions through the information it conveys. The influx of information from mass media brings about social changes in society, and the information delivered through mass media holds the power to either build or destroy (Wahyudi, 1992). One type of mass media is television, and in today's era, the internet has become particularly dominant.

According to Hemin Ma in New Educational Sociology (2009), television and the internet are the most influential forms of mass media in shaping socialization. Furthermore, over the past 30 years, the number of television programs targeting children has grown rapidly, leading to children spending more time in front of screens and experiencing earlier exposure to media (Chen and Adler, 2019). However, childhood is a crucial phase in development, where early experiences have a profound impact on intellectual growth and the instillation of life values (Knudsen, Heckman, Cameron, & Shonkoff, 2006).

Historically, concerns about children spending excessive time in front of media screens have been a recurring issue (Neuman, 1995). Further studies on the effects of screen exposure on children's development have been conducted across various disciplines. In the field of communication studies, research not only examines the effects of media but also analyzes how information is crafted to convey specific messages to audiences, especially children. With the rapid growth of the media production industry and the rising popularity of animation, it can be said that we are now in the "era of animation" (Liu & Luo, 2019).

Popular children's animations, such as Cocomelon, Pinkfong, Rico the Series, and Nusa Rara, feature visually engaging content that captures children's attention. The films or content presented can subtly deliver information to children, influencing their cognitive development, understanding of the world, personality growth, and value formation (Liu & Luo, 2019). Referring to The Influence of Animation on the Social Development of Preschool Children by Qingke Liu and Wenting Luo, multidisciplinary studies show that animation plays a critical role in shaping children's cognition, attitudes, interpersonal relationships, and morals.

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Given the significant influence of animation on children's development and its integral role in their upbringing, the text and context within animation deserve special attention. What children watch heavily impacts their development. Animation and culture are interrelated, influencing one another. The creation of animated texts and contexts is shaped by culture and, in turn, influences cultural values. The values embedded in animated films both reflect and are shaped by societal realities (Fitria, 2022). Films can also serve as a mirror to observe and understand how a culture exists and thrives within society (Sari, 2018).

In another study by Sapsağlam (2018), it was found that children today are highly accustomed to using social media applications, often accessed through their parents' smartphones. One of the most frequently used applications by children is YouTube, which they use to watch animated videos or cartoons (Attabey, 2020). Therefore, given the significant impact of animated content on children's development, it is necessary to conduct research with an Indonesian cultural context, exploring how animated texts can represent values that align with Indonesia's cultural heritage.

YouTube has emerged as a central platform for children's media consumption, profoundly influencing their developmental and educational experiences. As of recent studies, a significant portion of young audiences engage with YouTube for entertainment, learning, and creative exploration, making it a dominant digital space for content consumption (Pew Research Center, 2018; Chaudron et al., 2018). The platform offers a vast array of videos, ranging from nursery rhymes and educational programs to role-playing and gaming content. These materials have the potential to enrich children's knowledge, creativity, and social skills, provided they align with developmental and educational standards (Gottschalk, 2019).

However, concerns persist regarding the quality and appropriateness of children's content on YouTube. The platform's algorithm often prioritizes engaging and trending content, which may not always align with cognitive and psychological needs. Moreover, the commercialized nature of YouTube raises ethical questions about advertising and the commodification of childhood, highlighting the need for a balance between entertainment and developmental appropriateness in digital media (Livingstone et al., 2017). Considering the

importance of how Youtube plays a key role in providing children content easily, it is also worth noting that it is the parents that allow such consumption.

A research done in the US found out that almost 81% of all parents with children age 11 or younger say they let their child watch videos on YouTube, more importantly 34% of parents say their child watches content on YouTube regularly. (Pew Research Center, 2018). This phenomenon should raise the concern on what children consume on Youtube with such high intensity media consumption? This is where Youtube's algorithmic influence plays on.

The issue of algorithmic influence is central to understanding content dynamics on YouTube. Creators often design their videos to align with the platform's recommendation system, emphasizing strategies to increase views and engagement (Burroughs, 2017). This strategic design can limit the diversity and authenticity of content, particularly for young audiences (Cunningham et al., 2016). As the platform continues to dominate as a source of children's media, evaluating the quality, appropriateness, and accessibility—or legibility—of its content becomes imperative.

Legibility, in the context of children's content, refers to the cognitive and narrative accessibility of media designed for young audiences. On platforms like YouTube, the legibility of content plays a critical role in fostering meaningful engagement and learning outcomes. For instance, videos with strong visual cues and well-structured storylines might support better comprehension and sustained attention in children. Conversely, overly complex or fast-paced content can overwhelm young viewers, hindering their ability to process information and reducing the developmental value of media consumption (Rozendaal et al., 2016). As such, ensuring the legibility of children's content on YouTube is paramount for creating an enriching digital environment. While studies have examined YouTube's impact on children's screen time and behavior (Livingstone & Helsper, 2020), limited research has focused on the legibility of its content and its implications for child viewers.

This study examines how YouTube serves as both a community space and a participatory culture within the concept of affinity spaces, while relating this to Habermas's notion of the public sphere, specifically within the context on the legibillity of children's content. Previous research on children's content creation on

YouTube has emphasized how the platform shapes content production to cater to young audiences. Benjamin Burroughs (2017) in his study on YouTube Kids highlighted how the app's algorithms specifically target children, influencing the type of content produced for them. Similarly, Benjamin Nicoll and Bjorn Nansen (2018) examined children's participation in YouTube Toy Unboxing Videos, demonstrating how this genre has established commercialized production norms that drive content aimed at young viewers.

In another study, Maarit Jaakkola (2019) focused on toy review videos, showing how content creation strategies are tailored for vernacular viewing to capture children's attention while also driving commercialization. Jessica Balanzategui (2021) explored disturbing children's genres, showing how content is mass-produced to align with YouTube's algorithm, optimizing for views while sometimes creating unsettling genres for young audiences. The emergence of genres like ASMR in children's content, as discussed by researchers in 2022, also highlights how creators develop visually tactile videos that blur the line between children's and adult content, revealing the complexities of content production in this space.

By comparing YouTube and YouTube Indonesia, the research explores how different cultural and regulatory contexts shape content creation and interactions. Using a purposive method to gather video based on Youtube algorithmic's recommendation and visual content analysis, this research identifies key trends in the typology of children's content, offering insights into how digital platforms structure media for young audiences across diverse contexts; How does YouTube's algorithm shape the types and presentation of children's content? What visual and narrative elements enhance or hinder the legibility of children's content? How do cultural and regulatory contexts impact the legibility and appropriateness of children's content on YouTube?

Youtube as Affinity Spaces for Children Content

YouTube has become a significant digital affinity space where children interact with content tailored to their interests. As theorized by Jenkins et al. (2006), affinity spaces foster participatory cultures by enabling audiences to engage with and contribute to media in various ways. This aligns with observations that YouTube functions as both a learning tool and a source of entertainment for

children, offering opportunities for informal education and skill development. However, the platform's design also poses risks related to content appropriateness and quality, particularly given its algorithm-driven nature.

Existing studies on YouTube highlight its role in fostering participatory culture (Burgess & Green, 2018), where users transition from passive consumers to active creators. Children's content, in particular, provides opportunities for younger audiences to engage in content co-creation, blurring the lines between audience and creator (Chaudron et al., 2018). Research on children's media habits (Livingstone, 2009) suggests that platforms like YouTube offer a space for informal learning, socialization, and identity exploration.

Gee's (2005) concept of affinity spaces emphasizes participation in knowledge-sharing and collaborative interaction, particularly within digital communities. YouTube facilitates these affinity spaces by allowing users with shared interests (e.g., educational content, animated series, roleplay) to engage with both content and fellow users in a way that promotes social learning and community-building.

Habermas' (1962) concept of the public sphere is foundational to understanding the media's role in fostering public discourse. With the rise of digital platforms, researchers have extended this idea to online spaces (Papacharissi, 2010), analyzing how platforms like YouTube serve as mediated public spheres where social interaction and debate occur. However, the public sphere on YouTube is shaped by corporate interests and algorithmic governance, which may undermine its democratic potential (Van Dijck, 2013).

YouTube's algorithm heavily shapes the visibility and consumption of children's content, prioritizing engagement metrics like watch time and clicks. This algorithmic prioritization can favor sensationalist or commercialized content, often to the detriment of diversity and authenticity (Bishop, 2018; Boerman & van Reijmersdal, 2019). Such practices have been critiqued for their potential to expose young viewers to inappropriate or overly commercialized material, limiting their ability to discern the intent and quality of content.

Media Legibility and Visual Narratives

The concept of media legibility is crucial for understanding how children engage with visual narratives on platforms like YouTube. Research highlights that

the clarity and structure of visual elements significantly influence comprehension and engagement. Educational videos, for example, benefit from well-structured narratives and clear presentation styles, which can enhance learning outcomes (Tarchi et al., 2021). Applying these principles to children's content could improve its accessibility and developmental appropriateness, aligning with cognitive and educational theories of media use.

Legibility in children's content refers to the ease with which young viewers can understand and engage with the content. As YouTube becomes a central platform for children's media consumption, ensuring the legibility of content is crucial for fostering positive developmental outcomes (Pew Research Center, 2018). However, the platform's algorithm-driven approach often prioritizes metrics like engagement and watch time over the developmental appropriateness of content, creating challenges for producers and parents alike (IEEE, 2024).

Children's cognitive processing capabilities differ significantly from those of adults, requiring content with clear visual narratives, simple language, and developmentally suitable themes (Valkenburg & Piotrowski, 2017). For instance, bright colors, repetitive patterns, and slower pacing are known to enhance comprehension in preschool-aged children, while older children benefit from more complex narratives that promote critical thinking (Livingstone & Helsper, 2020). Yet, a significant proportion of children's content on YouTube features fast-paced edits, sensory overload, or themes that may not be appropriate for their age group (Balanzategui, 2021). This happened because of the need for following what is known as Youtube Algorithm's way of recommending video.

The blurred lines between entertainment and advertisement on YouTube, particularly in influencer-driven content, raise ethical concerns. Studies suggest that children often struggle to recognize advertising embedded within content, making them more vulnerable to persuasive messaging (Boerman et al., 2017). Efforts to regulate this through disclosures and guidelines have shown mixed success, highlighting the need for clearer standards and enforcement (Federal Trade Commission, 2017; EASA, 2018).

B. METHODS

This study adopts a qualitative approach, employing a purposive method to gather video data based on YouTube's algorithmic recommendations and visual content analysis to interpret the visual elements within the selected videos. To authentically replicate user behaviour and explore how YouTube content is encountered by children through parental mediation, the researchers—who are themselves mothers of young children—simulated the experience of a parent recommending videos. This method ensures that the collected data reflects YouTube's algorithmic logic and user interaction patterns. Recognising the ubiquity of YouTube in contemporary parenting, this study was motivated by concerns over the platform's influence on children's media consumption. The data were gathered through YouTube's search bar using keywords such as "children content" and "konten anak" (for Indonesian content), allowing the results to be shaped by the platform's recommendation algorithm. To complement this personalised data collection, the researchers utilised the YouTube Data Tools (YTDT) developed by Bernhard Rieder (2015), particularly the Video List Module, to extract structured metadata for a broader overview. This allowed the researchers to obtain a dataset comprising video title, channel name, ID, publication date, description, duration, category, and engagement metrics (views, likes, comments), offering both micro and macro-level insights. The dataset was limited to the top 100 videos as ranked by YouTube's algorithm across four timeframes—2020, 2021, 2022, and 2023—thereby allowing a longitudinal analysis of children's content trends.

The videos were analysed using visual narrative theory, with a particular focus on character design, storytelling structures, educational value, and audience engagement strategies. The analysis concentrated on three dominant genres—educational videos, animated songs, and roleplay/pretend play content—as well as two unique YouTube genres: toy unboxing and algorithmic anomalies (such as disturbing content and ASMR). A cross-cultural comparison between YouTube Worldwide and YouTube Indonesia was undertaken to explore how differing cultural contexts affect content production and reception. This comparative analysis aimed to identify narrative distinctions, thematic focuses, and user interaction patterns across the two regions. By combining algorithm-driven video selection with qualitative visual analysis and metadata evaluation, the study provides

a comprehensive exploration of children's content on YouTube and the ways in which algorithmic design intersects with cultural norms in shaping media exposure.

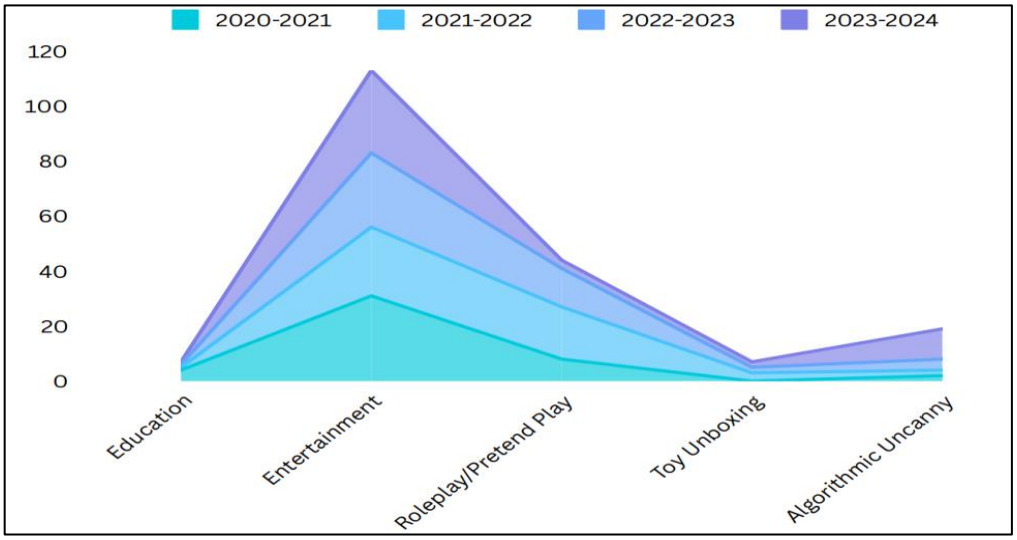
C. RESULTS AND DISCUSSION

Mapping Children's Legibility on YouTube

The journey of mapping the children's content through mimicking the way users utilize the app proves to reveal finding worth mentioning about how the recommendations based algorithmics works. The algorithm operates by creating a list of videos that appears random yet follows predictable patterns. The number of views is not always the priority of making the list of video recommendations, but rather similar content with slight variations that might keep the users interested. The similarity could be that the video recommendations are produced from the same channel or might provide the same type of content, but with small changes such as the language. So, while it might look like the recommendations videos are endless, they are actually just variations of the similar content previously watched. Based on the video list provided by the keywords on Youtube search bar, we will be first presented with the list of the video matches the relevance of the keyword. From then on, the journey to dive deeper into the the algorithm recommendations comes from the suggestions bar and Youtube's affordances such as Auto Play.

The findings present the typology of children's content by analyzing a wide range of children's videos and applying visual narrative theory. This study identified several key genres, their cultural characteristics, and the role of algorithmic structures in shaping these content types. There are dominant genres in children content on Youtube; educational video, entertainment and music, and roleplay or pretend play content. Meanwhile there are two emerging genres that are only unique from Youtube such as toy unboxing video, and algorithmic anomalies; disturbing video and ASMR content. All those genre's visual narrative and visual elements plays part in presenting and conducting what is deemed as legible form children content on Youtube.

Figure 1. Trend on Children Content's on Youtube

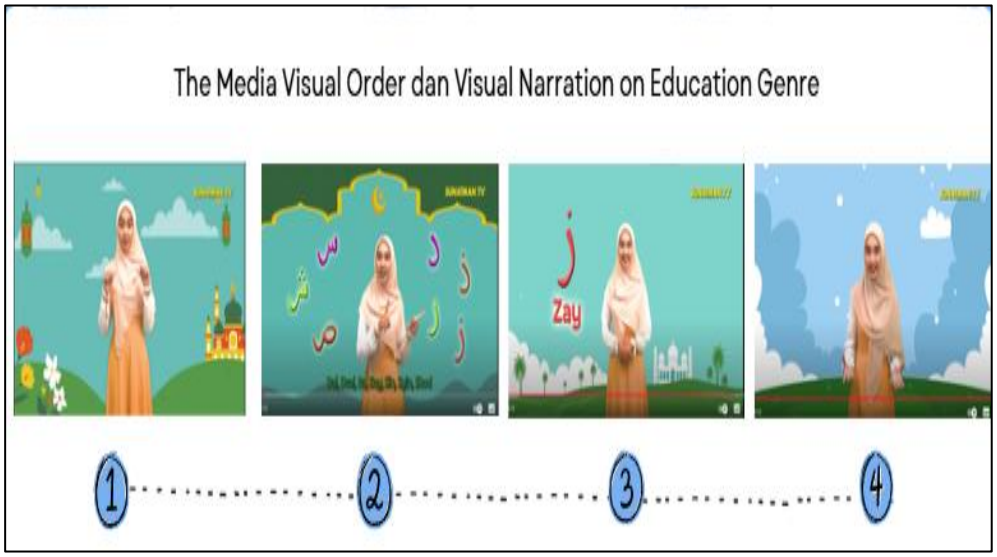


(Children Content Trend in Youtube Indonesia (2020-2024)

Interestingly based on the data collected by Youtube Data Tools, the trend for children's content in worlwide is instead dominated by education genres, until it rapidly fall on the 2023-ish changed by entertainment genre. On the same note, the rise of the algorithmic uncanny genre also happened in the late 2023. This findings shows that while global Youtube and Indonesia Youtube has different cultural and regulation context the same thing is happening. The rise of uncanny genre, the ever popularity of entertainment genre shows that the audience on any side of Youtube is slowly becoming alike, regardless of cultural background.

Figure 2. The Legibility on Children Content's Genre in Youtube

Educational Content: Interactive & Cultural Narratives



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One of the most prominent genres identified is educational content, which encompasses videos designed to teach children a variety of topics, from basic literacy and numeracy skills to broader educational themes like science and history. These videos often use bright colors, animated characters, and simple language to engage young viewers. In Indonesia, educational content frequently takes on a local flavor, integrating traditional folktales or cultural and religious references into the lessons. While in particular about learning Huruf Hijaiyah (Arabic Alphabet) this is such a unique and contextualize content considering Indonesia is the biggest muslim country in the world. This genre is characterized by videos aimed at teaching foundational skills (e.g., alphabet, numbers, science), often through animated or live-action characters.

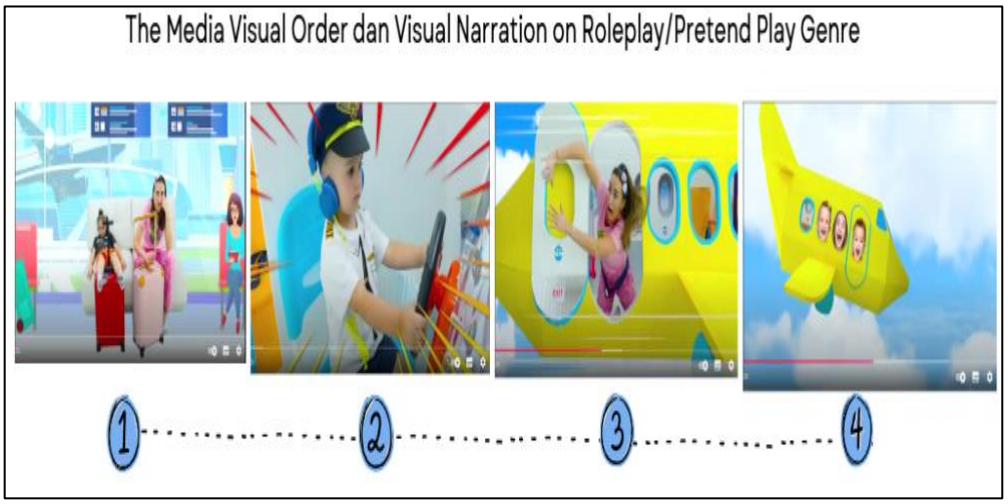
Figure 3. Entertainment & Music: Rhythm, Repetition, Adaptation

(Example of Popular Islamic Children Songs on Youtube).

Another dominant genre is entertainment and music videos. This genre includes animation in narration, nursery rhymes, animated songs, and dance videos. In Indonesia, the rise of localized versions of popular global songs, such as those adapted from English nursery rhymes, illustrates how cultural localization plays a role in shaping this genre. Such as the Indonesian version of Wheels on The Bus (Roda di Bis), itsy bitsy spider (Laba-laba Kecil) and many children friendly religious songs such as Sholawat or songs about Rukun Iman and Rukun Islam. Based on the data collected, popular channels tend to have the localized versions of their

content to reach more views. This once again solidified the fact that the content will follow the cultural context to appeal more familiar to the audience.

Figure 4. Roleplay: Imaginative & Culturally Relevant Narratives

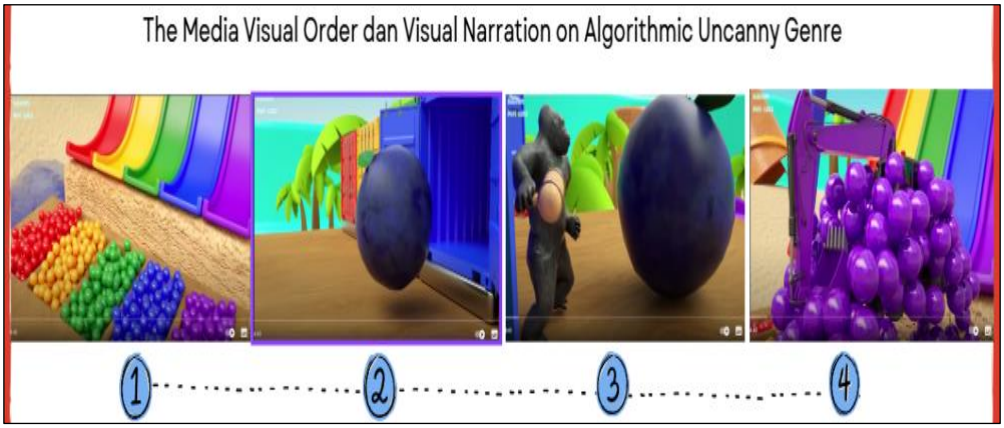


A growing genre in children's content is roleplay and pretend play, where children or actors reenact some type of scenario such as playing house, acting as doctors, or engaging in fantasy adventures. This genre appeals to children's imaginative play and allows them to engage in narrative-driven content. The visual narrative often follows a loose, episodic structure, where children enact various roles, teaching social norms, problem-solving, and emotional intelligence through play. In Indonesia, roleplay content has gained traction by incorporating local settings, cultural elements, and language, making it more relatable to Indonesian audiences. Interestingly, roleplay and pretend play content has also been one most popular content to be dubbed in Indonesian language. The algorithm supports this genre due to its ability to generate long watch times, as children are drawn to the open-ended nature of the narratives. However, the rapid production of these videos sometimes results in lower-quality storytelling, prioritizing quantity over quality to keep up with algorithmic demands.

Figure 5. Toy Unboxing: Play Meets Commercialls

The toy unboxing and product review genre has become a global phenomenon, and its influence in Indonesia is significant. This genre typically features children or adults unboxing and reviewing toys, with the content often blurring the line between entertainment and advertisement. The visual narrative is straightforward, centering around the act of unboxing a toy, showcasing its features, and occasionally providing a demonstration of how it works. In the Indonesian context, this genre is often localized through the use of Indonesian-language commentary and the inclusion of locally popular toys or brands.

Figure 6. Algorithmic Anomalies: Disturbing and ASMR Content Trends



A troubling aspect of algorithm-driven children's content is the rise of disturbing or uncanny videos that appear child-friendly but contain unsettling or inappropriate elements. These videos, often shaped by algorithmic recommendations, can feature incoherent visuals, unsettling characters, and abrupt tonal shifts that aren't suitable for young audiences (Balanzategui, 2021). In

Indonesia, some creators exploit these trends, producing content that bypasses parental controls and draws children's attention with repetitive nursery rhymes and overly saturated visuals.

Figure 7. the Media Visual Order and Visual Narration on ASMR Genre

Similarly, ASMR (Autonomous Sensory Meridian Response) and sensory content have become popular in children's media, often intended as calming or "oddly satisfying" experiences. Adapted in Indonesia to include traditional crafts or foods, ASMR videos focus on sensory engagement over storytelling.

Legibility and YouTube's Design for Children's Content

The legibility of children's content hinges on cognitive and developmental accessibility. Effective children's media incorporates clear narratives, repetitive patterns, and slower pacing to accommodate the limited attention spans and comprehension abilities of young audiences (Tarchi et al., 2021). For example, educational videos that emphasize structured storytelling and simple language have been shown to enhance learning outcomes and viewer engagement.

Intentionally Turning Off the Comment Section on Children's Content

YouTube disables comments on children's videos as a protective measure to prevent inappropriate interactions, harassment, or exploitation. While this step promotes safety, it also removes a crucial aspect of participatory culture, where users engage with creators and other viewers. This shift impacts the legibility of children's content by removing audience feedback, which creators might otherwise use to refine or adapt content for their young audiences (Livingstone & Helsper, 2020). The absence of comments might hinder the development of community-based affinity spaces that could enhance content comprehension and contextualization.

Intentionally Turning Off Several YouTube Affordances

Features like autoplay or video saving are often restricted in YouTube Kids or children's content to protect young viewers from excessive screen time and inappropriate content. While this aligns with developmental needs, it also means that children have less control over their content consumption pathways. Such restrictions influence how children engage with content, making the user interface and navigation experience simpler but also limiting exploration, which might otherwise contribute to a deeper understanding of narratives and educational material**.**

YouTube's recommendation algorithm significantly shapes the legibility of children's content by curating what appears in the "Up Next" or "Recommended" sections. The algorithm operates by creating a list of videos that appear random but are governed by patterns. For children's content, it prioritizes thematic similarity, often by featuring videos from the same channel or those that replicate a similar style, language, or format. This process enhances narrative continuity for young viewers, fostering comprehension by keeping content within familiar contexts. However, the algorithm may also reinforce repetitive content tropes, which could hinder exposure to diverse educational materials and perspectives.

For instance, children may encounter multiple versions of the same nursery rhyme in different languages or animations that replicate existing narratives with slight variations. This ensures consistency in tone and style but could reduce opportunities for creative or critical engagement if the variations lack depth (Rozendaal et al., 2016). These practices collectively shape the legibility of children's content on YouTube by influencing how children access, understand, and engage with videos. While protective measures like disabling comments and affordances simplify user interactions, they also limit participatory elements that could enhance comprehension. Meanwhile, the recommendation algorithm fosters thematic continuity but raises concerns about diversity and depth in the content. As such, understanding and addressing these dynamics is crucial for ensuring that YouTube provides an enriching and safe digital space for children.

Algorithmic Influence on Children's Content

YouTube's recommendation algorithm plays a pivotal role in determining the type and presentation of children's content. The algorithm functions by curating video recommendations that may seem random but are actually shaped by predictable patterns. For instance, videos produced by the same channel or similar in theme, language, or minor visual elements are frequently recommended to maintain user engagement (Craig & Cunningham, 2019). The algorithm prioritizes metrics like user retention and engagement over diversity, leading to repetitive content patterns optimized for extended viewing sessions.

Based on the findings creators have adapted to these algorithmic tendencies by strategically designing content that aligns with platform preferences. Examples include using bright visuals, repetitive storytelling, and overstimulating editing techniques to capture and sustain young viewers' attention. However, this focus on algorithm-friendly production can compromise content quality and developmental appropriateness.

The algorithmic classification of children's content is influenced by metadata, keywords, and audience engagement patterns. YouTube employs machine learning to identify videos suitable for younger audiences based on visual and narrative cues, such as bright colors, simple animations, and repetitive patterns (IEEE, 2020). While this approach promotes legibility by curating content tailored to children's cognitive and developmental levels, it also risks misclassification. For example, videos designed with child-friendly aesthetics but containing inappropriate messages may bypass algorithmic filters, leading to potential risks (Curchod et al., 2019).

Despite these challenges, YouTube functions as a vibrant affinity space, particularly in the realm of role-playing content. In Indonesia, role-play videos where children reenact scenarios like "going to school" or "playing house" reflect local cultural norms and serve as a learning tool. These spaces allow children to engage with peers globally while maintaining connections to their cultural identity.

Despite the nature of media allowing the content created to be divergent and as-you-like, the settings of the algorithm dictate the visibility and legibility of children content on Youtube. Enabling only content specifically tailored to 'youtube visual order rules' to be shown and watched. This phenomenon shows

that the participatory and 'public sphere atmosphere' that Youtube try to push forward was actually designed and made up sphere.

Conversely, algorithm-driven content can undermine legibility by prioritizing fast-paced, overstimulating visuals or incoherent narratives. These characteristics may overwhelm children and hinder their ability to process information effectively, reducing the developmental benefits of digital media consumption. Furthermore, the platform's decision to disable comments and other interactive features on children's videos, while intended to protect users, limits opportunities for participatory engagement, which is an essential aspect of digital learning environments (MIT Journal of Design and Science, 2022).

Impact of Commercialization and Cultural Context

YouTube's recommendation system, driven by engagement metrics and monetization, disproportionately promotes commercialized content. Educational videos and culturally specific content from Indonesia, despite having strong community engagement, often receive less visibility due to lower commercial viability. This raises concerns about the platform's ability to nurture a diverse and inclusive public sphere for children.

The cultural and regulatory contexts significantly influence both the creation and consumption of children's content on YouTube. In localized markets, algorithms tailor recommendations based on regional preferences and linguistic nuances, ensuring cultural relevance. For example, videos in Indonesia often incorporate local language and themes, reflecting the regional audience's needs while adhering to global content trends (UC Berkeley School of Information, 2023). Regulations, such as COPPA in the United States, restrict personalized advertisements and enforce stringent guidelines for children's media. While these measures protect young users from exploitation, they also pose challenges for content creators. For instance, monetization restrictions can disincentivize high-quality productions, compelling creators to favor algorithmic trends over developmental appropriateness (Livingstone & Helsper, 2020). Regulatory gaps in non-Western contexts further complicate the landscape, as inconsistent enforcement allows for the proliferation of content that may not align with global developmental or ethical standards.

Global vs. Local Cultural Narratives

On YouTube Worldwide, children's content tends to emphasize a broader, more universal appeal, often characterized by entertainment-driven videos with minimal cultural specificity. In contrast, YouTube Indonesia shows a preference for content that emphasizes traditional values, familial roles, and community cohesion. Animated songs in Indonesia often incorporate local folklore or moral lessons, while educational content stresses religious and societal norms.

D. CONCLUSION

YouTube's algorithm, coupled with visual and narrative design elements, significantly shapes the ecosystem of children's content. The platform's recommendation system promotes repetitive and engagement-driven content patterns, often at the expense of diversity and quality. While visual and narrative legibility can enhance comprehension and developmental benefits, algorithm-driven priorities frequently undermine these objectives by favoring overstimulating or incoherent designs. Cultural and regulatory factors add layers of complexity to this dynamic. Localized content strategies and regulatory frameworks aim to ensure relevance and protect young audiences but often fall short in addressing algorithmic biases and commercial influences. This study highlights the need for algorithmic transparency, developmental alignment in media design, and culturally sensitive moderation to create a safe, enriching digital environment for children globally.

YouTube operates as a dual-functioning space: it serves as an affinity space that fosters collaboration, learning, and content creation, while also acting as a public sphere constrained by commercial and regulatory influences. This research demonstrates that YouTube's algorithm-driven nature affects the visibility of diverse children's content, particularly in culturally specific contexts like Indonesia. For YouTube to fully realize its potential as a healthy public sphere for children's content, stakeholders—including content creators, platform regulators, and policymakers—must work together to promote diverse, educational, and culturally sensitive content. Recommendations include, *For Content Creators*; Emphasize the creation of engaging yet educational content that can appeal to both global and local audiences. Experiment with visual and narrative techniques to enhance learning outcomes. *For Policymakers*; Strengthen regulations that protect children

from over-commercialization while ensuring that diverse content (especially culturally significant videos) is supported by algorithmic transparency and fair distribution. *For YouTube*; Enhance platform algorithms to better balance commercial content with educational and culturally significant content, ensuring that children have access to diverse media experiences.

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