Generation Z's Perceived Authenticity and Engagement with AI-Generated vs.

Human-Made Artistic Media Content: The Roles of Content Labeling and Attitude

toward Regulation

Mik Bosch (s2743345)

Mirjam Galetzka

1st of July, 2024

Bachelors Program of Communication Science

Abstract

This study investigates how content origin (human-made vs. AI-generated) and labeling influence the perceived authenticity and engagement of artistic media among Generation Z, while also examining the role of attitudes towards AI-generated content regulation. A quantitative approach was used, involving a survey with 105 participants who evaluated six pieces of artistic human-made content and six pieces of artistic AI-generated content (labeled or unlabeled) across cinematography, photography, and music. The results show that human-made content is perceived as more authentic and engaging, with a significant relation between authenticity and engagement. Labeling AI-generated content impacts perceived authenticity in some instances, especially among those with high regulatory demands, but does not consistently affect engagement. These findings highlight the need for further research into AI labeling practices and their effects, focusing on different demographic groups and artistic media types. Understanding these dynamics is crucial as AI technology evolves, influencing consumer perceptions and interactions with digital art.

Keywords: AI-generated content (AIGC), perceived authenticity, engagement, content labeling, Generation Z, AI in artistic media, regulatory attitudes, consumer perception, human-made content, digital art

1 - Introduction

In an era of rapid digital innovation, Artificial Intelligence (AI) has profoundly reshaped the media landscape, influencing how digital media content is created, distributed, and consumed. The rise of Generative Artificial Intelligence has significantly increased the output of many media formats, from text to imagery and even full-motion videos, exemplified by technologies such as ChatGPT and Midjourney (Feuerriegel et al., 2023). According to Nghiêm-Phú (2022), the market for AI-made products, particularly digital products, is expected to expand significantly. These advancements have not only encouraged an increase in AI-generated content (AIGC) but have also raised questions about the use of AI in artistic media activities.

AI is increasingly prevalent in daily content across social media platforms, demonstrating a significant capability to replace the production of different social media content (Sivakumaran, 2023). Furthermore, AI's capabilities are rapidly advancing towards replicating or even fully mimicking human-created artistic digital content, conceptualized in this study as cinematography, photography, and musical compositions. A notable example from 2023 is the film "The Frost," which was entirely generated by AI using tools like DALL-E 2 and D-ID (Adjiovsky, 2023). This development underscores that even sophisticated forms of artistic media such as cinematography can now be convincingly created by AI. However, artistic media content differs notably from other content forms as educational, informative, and commercial content. Artistic content distinctively holds a higher emotional, creative, and authoritative value for consumers (Botti, 2000; Bourgeon, 2000; Estes et al., 2018) and tends to receive higher engagement levels (Tafesse, 2015, as cited in Shahbaznezhad et al., 2021). Furthermore, Tirocchi (2024) emphasizes that, especially young individuals, prioritize authenticity in their media consumption, with Valsesia et al. (2015) stating that the perceived authenticity of content significantly influences engagement levels. Fundamental theories like the Social Presence Theory suggest that human-made content will evoke more engagement (Short et al., 1976) and thus it is argued that AI-generated content will not be able to replace human-made content (Hutson & Lang, 2023), emphasizing the value and

unique qualities of human artistic expression. Despite their preference toward authentic content, individuals may struggle to accurately discern between AI-generated and human-made content, which could hinder their ability to assess the authenticity effectively (Ramu et al., 2023; Partadiredja et al., 2020), implicating the need for origin disclosure.

In this context, content labeling emerges as an effective form of origin disclosure. In March 2024, the first EU AI Act, to regulate transparency about AI use, was passed on (*EU AI Act: First Regulation on Artificial Intelligence, European Parliament*, 2023). The new act mandates clear labeling of AI-generated content, prompting various platforms, including Instagram, TikTok, and Facebook, to develop new regulations for AI-generated content. Content labeling has shown significant effects in the food industry (Berry et al., 2018; Bushman, 1998; Messer et al., 2017; Thunström, 2019), but also on social media, mainly in increasing awareness of sponsored content and therefore impacting engagement (Amazeen & Wojdynski, 2020; De Jans et al., 2018; Van Reijmersdal et al., 2016). Building on existing research, which shows that origin disclosure significantly impacts credibility and audience interaction with AI-generated virtual influencers (Köles et al., 2024; Lim & Lee, 2023), labeling content as AI-generated is expected to significantly influence perceptions of authenticity and engagement levels of AI-generated content. Given that artistic content distinctly varies from typical social media content like informative material, it prompts additional inquiries about perceptions of transparency regulations concerning artistic content. This issue closely ties to perceived authenticity and the necessity for origin disclosure. Consequently, this study also examines attitudes towards AI-generated content regulations and their relationship with the impact of labeling on perceived authenticity and engagement.

Central to this study is Generation Z. As they were born into the digital landscape, Generation Z exhibits a distinctive tendency toward embracing AI innovations in various sectors. Their lives are intricately linked with technology and the internet, seeking seamless and secure usage (Priporas et al., 2017). Compared to other generations, this demographic's natural digital nativity fosters a higher level of acceptance and engagement with AI (Haggenmüller et al., 2021; Köles et al., 2024; Lazányi, 2019) and is using AI at significantly higher rates than other generations, with 75% of GenZ'ers having used AI before

(Chandonnet, 2024). Their profound integration with digital technology makes Generation Z an ideal subject for exploring the nuances of artistic AI in media.

In summary, a research gap exists in understanding the impact of content origin (human-made or AI-generated), origin disclosure (labeled or unlabeled) and attitudes towards regulation on perceived authenticity and engagement of AI-generated content within the realm of artistic media content. The new European legislation underscores this need for further investigation into how origin disclosure with content labeling can influence perceived authenticity and engagement values and how Gen Z's attitude toward regulation can moderate the effect of labeling. Therefore, this study seeks to find an answer to the main research question of *"How do content origin (human-made vs. AI-generated) and AI-generated content labeling affect the perceived authenticity and engagement of artistic media among Generation Z, and to what extent is this effect moderated by attitudes toward AI-generated content regulation?"*

To answer this question, the study employs a quantitative approach, collecting data through a survey that measures perceived authenticity, engagement, and attitudes toward regulation of AI-generated content. The participants were presented three types of artistic content (cinematography, photography, and music) both human-made and AI-generated (within-subjects factor), and either labeled or unlabeled (between-subjects factor).

Given the limited research on AI's impact specifically in the field of artistic media content, this study contributes significantly to the academic discourse by not only exploring how AI is reshaping content consumption but also by examining the implications of these changes on consumer behavior and regulatory frameworks. Particularly considering how rapidly AI is evolving, additional research is needed to further develop the concepts of authenticity and engagement in the context of AI-generated content and track changes over time in cognitive and emotional responses to AI-generated content. Furthermore, future research should explore the broader implications of AI in other forms of media.

2 - Theoretical Framework

2.1 AI-generated Content and Artistic Media Content

2.1.1 AI-generated Content

Artificial Intelligence-Generated Content (AIGC) is defined as "content generated by AI, including text, pictures, and videos. This technology has been rapidly advancing in recent years, and has the potential to revolutionize various industries, including media, marketing, and education" (Du et al., 2023, p. 122). The essence of generative AI lies in its ability to craft novel, meaningful content from learned data, a capability that is reshaping our interaction and content creation models. Not limited to artistic pursuits, generative AI also enhances human capabilities by providing intelligent, responsive systems for diverse applications (Feuerriegel et al., 2023). Underpinning this is AI's core function: to accurately interpret external data, learn from it, and apply these insights to accomplish specific objectives through adaptive strategies (Kaplan & Haenlein, 2019; Partadiredja et al., 2020).

This technology leverages advanced techniques, streamlining the generation of substantial content volumes swiftly, contrasting with traditional human-driven creation processes (Cao et al., 2023), therefore building upon the capability of creative AI tools to entirely substitute certain occupations (Sivakumaran, 2023). Consequently, the latest developments in generative AI allow to automate every step of the content creation process, including brainstorming, audience research, and actual content design (Brüns & Meißner, 2024; Du et al., 2023). The increasing ability of AI in content creation raises pivotal questions: Can individuals tell the difference between content created by AI and that created by humans? And more fundamentally, do we desire a clear distinction between human-made content and AIGC? Partadiredja et al. (2020) highlight that distinguishing between AI-generated and human-made content is increasingly challenging for people, a difficulty that not only underlines the technological advancements in AIGC but also casts a spotlight on the ensuing societal and ethical considerations. Despite these challenges in differentiating between AI-generated and human-made content, Hutson & Lang (2023) emphasize the value of human artistic expression by asserting that generative AI tools should not be considered

replacements for human creativity. Gross (2023) acknowledges the potential benefits of integrating AI into the creative industry but questions whether AI can truly create original works of art or simply imitate human creativity, emphasizing that human creativity will remain essential. A fundamental concept contributing to this research gap is the Social Presence Theory (Short et al., 1976), which suggests that content created by humans tends to evoke more intense emotional reactions and engagement because it fosters a sense of social presence. However, recent findings challenge this perspective, showing that content from generative and augmented AI is often viewed as superior in quality compared to that created by human experts, even though disclosing the source tends to narrow but not eliminate this quality perception gap (Zhang & Gosline, 2023).

2.1.2 Artistic Media Content

This study introduces "Artistic Media Content" as a conceptual category encompassing a wide range of digital artistic expressions accessible online. This category includes cinematography, photography, and music. The enhanced emotional value, creative value, and authority of artistic content likely intensify the role of perceived authenticity and engagement, particularly in contrast to less valued social media content. Various studies support the idea that people place a higher value on artistic content compared to other forms, such as informative content (e.g., news updates), educational content (e.g., historical facts), or commercial content (e.g., brand advertisements), primarily due to the emotional impact and subjective response it generates (Botti, 2000; Bourgeon, 2000). Fingerhut and Prinz (2018) suggest that the emotion of wonder plays a significant role in our appreciation of art. Additionally, emotion serves as a fundamental mechanism in art within advertisements, significantly enhancing both engagement and the perceived value of a product (Estes et al., 2018). Chan (2016) expands on the idea of higher authoritative value as he states art "is a form that authenticates what is most human about humanity" (p.151). In the digital world, engagement levels for artistic content also appear higher compared to other types of content. For instance, content related to art and branding tends to receive more likes on Facebook compared to more straightforward content focused on products and prices (Tafesse, 2015, as cited in

Shahbaznezhad et al., 2021).

It appears that people are more likely to engage with artistic content than other forms of content. However, studies show that once people learn that an artwork is fake, their engagement decreases. Research indicates that even when flawless replicas are acknowledged for their beauty, they are still valued less. This demonstrates that our appreciation of art extends beyond its visual characteristics to its historical context, the artist's touch, and our understanding of the creator's intent (Winner, 2018). Given this, AIGC might be perceived as less authentic than human art, as it lacks the direct human connection and historical relevance that are highly valued in traditional art. This sets the stage for exploring the current capacities of AI art following its rapid development in recent years and its implications for authenticity and engagement.

2.3 Development and Consumer Experience of AI-generated vs Human-made Artistic Media Content

2.3.1 AI-generated vs Human-made Artistic Media Content

AI is taking over artistic media content production. Different studies emphasize that AI has become an integral part of the film industry, revolutionizing the filmmaking process from pre-production to post-production (Mutlu, 2020, Singh et al., 2023). The release of the movie "The Frost" in 2023 exemplifies the growing capability of AI in film production, demonstrating a significant step towards fully AI-generated movies by integrating human creativity with AI tools like DALL-E 2 and D-ID for frame generation and animation (Adjiovski, 2023). Li (2022) states that both AI technology and human creativity are essential for the film industry's sustainable growth, emphasizing both the vast potential of AI and its current inability to fully replace human creativity in the film industry.

Additionally, AI is already playing a significant role in the music industry. Koempel (2020) and Vanka et al. (2023) both highlight the potential of AI in simplifying the process of mastering and generating production music, with Sturm et al. (2019) emphasizing that AI is already widely integrated in the composition of soundtracks for advertisements and video games. The rise of fully AI-generated music

is gaining momentum, with systems like OpenAI's Jukebox and the newly introduced Udio creating new songs based on their vast amount of musical data. Major entities from both AI and music sectors, including Google, Amazon, Sony, and Spotify, are increasingly investing in automatic music composition (Civit et al., 2022).

Tools like the chatbot ChatGPT and the image generator Midjourney enable AIGC creation via natural language instructions (Feuerriegel et al., 2023), offering straightforward interfaces for producing high-quality poetry, literature, and photography. These tools enhance design quality, create novel graphic elements, and analyze user behavior (Blazhev, 2023).

Research within the domain of AI-generated artistic media content and consumer engagement is in its nascent stages, and existing studies have yielded varied findings. Recent studies on AI-generated music indicate that it not only inspires creative activities but is also valued for its emotion, familiarity, and replayability, with melodiousness being crucial for listener satisfaction and naturalness remaining a significant factor (Chu et al., 2022). Additionally, "listeners often report AI music sounds unnervingly familiar rather than aesthetically inaccessible", (Rubinstein, 2020, p.77). Purchase intentions related to AI-generated music have already been subject to academic study, as Nghiêm-Phú (2022) revealed that perceived attributes of AI-made music and personal characteristics of young consumers significantly influence their purchase intentions.

2.3.1 Effect of AI-generated and Human-made Artistic Media Content on Perceived Authenticity and Engagement

In research on the interaction of AIGC with users, perceived authenticity emerges as a crucial variable. "Authenticity as a concept is commonly used to evaluate the genuineness and originality of objects or individuals" (Maares et al., 2021, p.2). Heynen (2006) further elaborates that 'authenticity' signifies the alignment of an entity's external appearance with its intrinsic nature, distinguishing the 'real' or 'true' from the 'fake' or 'false,' and highlighting the dissonance in appearances that misrepresent their essence. Jenkins et al. (2020) connected perceived authenticity, defined as the extent to which a source or

message is seen as genuine, trustworthy, and true to self by the audience, in online environments such as social media platforms, closely to credibility, which they conceptualized as the perceived trustworthiness and expertise of a source or message. Additionally, Valsesia et al. (2015) illustrate that creative authenticity, defined as the extent to which consumers believe a product genuinely reflects the creator's intentions, affects credibility. Notably, Nedelcu and Blaban (2021) found source credibility to be crucial in news sharing on Facebook, while Brüns and Meißner (2024) observed that the adoption of generative AI for content creation can negatively impact perceived post credibility. Furthermore, research by Gayakwad and Patil (2021) and Ghaisani et al. (2017) emphasize the importance of the source and medium in credibility and therefore authenticity evaluation, with Austin and Dong (1994) challenging the notion that source reputation directly influences believability, suggesting that message content plays a more significant role.

Existing research suggests that significant credibility, and therefore authenticity, can result from the perceived expertise and trustworthiness of AI. These perceptions of AI's authenticity in content creation can significantly influence consumer engagement. Other research shows that authenticity is important for art consumer engagement and that human-made content is generally perceived as more authentic.

Therefore, this study hypothesizes that *human-made artistic media content will have higher perceived authenticity and greater engagement compared to AI-generated artistic media content (H1)*. However, even if this hypothesis is supported, it remains uncertain and therefore intriguing to research whether authenticity and engagement levels will be influenced by participants' awareness of the content's origin.

2.4 Regulation of AI and AI-generated Content

2.4.1 Regulating AI-generated content

The first EU AI Act, proposed in April 2021 and passed on in March 2024, represented a ground-breaking step toward artificial intelligence regulation, with the goal of encouraging creativity while guaranteeing the safety, accountability, and transparency of AI. According to the Act, the primary mechanism for determining the level of regulatory control is the risk-based categorization of AI applications. Notably, the Act mandates AIGC to be clearly labeled so that consumers can recognize when they engage with this type of content (*EU AI Act: First Regulation on Artificial Intelligence, European Parliament*, 2023). Research generally supports the need for transparency; Huh et al. (2023) emphasize that due to the spread of AIGC, transparency is crucial to reduce misinformation risks and enhance societal trust. However, achieving transparency in AI is challenging due to the "black box" problem, where observers are able to witness the inputs and outputs but remain unable to understand the complex, non-linear processes taking place inside these advanced algorithmic systems (Eschenbach & Warren, 2021). Larsson and Heintz (2020) highlight the need for a multidisciplinary approach in addressing transparency in AI, suggesting that transparency is not only about opening the "black box" but also about understanding AI's impact on society.

The "black box" phenomenon also occurs with AIGC. Although users can specify desired styles, the underlying content used by the AI for creation remains obscure. AI systems analyze vast amounts of existing musical data, learning patterns, structures, and styles to synthesize and create original compositions influenced by their human-made training inputs (Civit et al., 2022), which raises persistent ethical and copyright issues (Koempel, 2020; Sturm et al., 2019). Users could be required to be informed about how AI was used in the creation of their music or choose to opt out of AI-generated music entirely on music apps, enhancing transparency and allowing artists and listeners to critically engage with AI's role in the process (Sturm et al., 2019). However, achieving this level of transparency demands specifying or clarifying the extent of AI involvement in the creative process, which has not yet been implemented by

AI systems. For example, tools such as Udio can produce a reggae song with the influence of Bob Marley and ChatGPT or Midjourney can generate a painting on demand in a post-impressionist style that recalls Van Gogh. However, these systems mostly never credit human artists that feature in their database, likely due to the potential requirements to compensate for all content utilized.

2.4.2 Origin Disclosure with Content Labeling

To regulate AIGC the AI Act involves origin disclosure with content labeling as a potential solution. Since research proved people find it difficult to distinguish between human-made and AI-generated content (Ramu et al., 2023; Partadiredja et al., 2020), transparency is essential for AIGC. Content labeling is a moderation technique whereby the platform annotates a piece of content with additional information to help the user assess it more effectively (Morrow et al., 2022) therefore reducing the knowledge gap that exists between producers and consumers (Caswell en Mojduszk, 1996, as cited in Messer et al., 2017). In online environments, perceived authenticity often involves transparency, including openness about motives, disclosure of origin, and the provision of accurate information without misleading practices (Winner, 2018). Thus, content labeling might help consumers clearly distinguish between AI-generated and human-made content, enhancing transparency, preventing the spread of misinformation, and impacting authenticity and engagement levels.

The study of labeling has been ongoing for a while in other research areas. For instance, a large body of research has examined the effectiveness of labeling in the food business (Messer et al., 2017). Labeling calories appears to have a positive effect on consumer welfare (Berry et al., 2018; Thunström, 2019), with nutrition labeling showing positive outcomes while also distinguishing between warning labels and information labels, which differently impact consumer behavior (Bushman, 1998).

Previous studies have demonstrated the effectiveness of content labeling digital environments. Morrow et al. (2022) proved that effective labeling reduces misinformation spread on social media and improves user discernment. However, while effective disclosure design enhances the recognition of sponsored content, it can also foster negative perceptions of both the publisher and the advertisement

(Amazeen & Wojdynski, 2020). Additionally, other studies indicate that revealing the sponsorship of online content can trigger persuasion knowledge, leading to emotional responses and affecting engagement, often resulting in heightened resistance and reduced persuasion (Van Reijmersdal et al., 2016). Similarly, De Jans et al. (2018) found that such effects extend to young adults, negatively influencing Generation Z's perception and trust in sponsored content. This suggests that origin disclosure with content labeling could similarly influence perceptions of AIGC and its publishers.

While some research on AIGC and content labeling exists, it remains relatively limited. There are different studies on AIGC in relation to virtual influencers, which are characterized as digital avatars that are crafted by using advanced technologies such as machine learning, to exhibit unique personas and storylines, influencing user interaction on social media (Köles et al., 2024; Lim & Lee, 2023). Previous studies demonstrate that origin disclosure has a significant impact on virtual influencers' credibility and how audiences view and interact with them (Lim & Lee, 2023). Building on these insights, Sivakumaran (2023) reveals that audience preferences for content labeling vary significantly by type, with a substantial demand for transparency in scientific literature, news articles, and YouTube videos. This demand is driven by the need to assess the credibility and identify potential biases in information sources, highlighting a growing consumer discomfort with the unchecked capabilities of AI in content creation. Interestingly, participants showed less concern about the labeling of AIGC in the art and entertainment sectors. Social media platforms are actively adapting to the evolving regulatory landscape by implementing content labeling for AIGC to enhance transparency. TikTok and Douyin have mandated that creators label content generated through AI technologies, reflecting a proactive approach to user awareness (TikTok, n.d.; Daum, 2023). Similarly, Meta has announced plans to introduce content labeling by May 2024 (Bickert, 2024), aligning with these transparency goals. YouTube has already begun labeling content this year, with a particular focus on AI-generated music (Sato & Patel, 2023), indicating a shift towards greater accountability. These changes underscore a broader trend within social media environments towards embracing regulatory changes and fostering an informed user base.

As labeling can effectively help consumers to assess the presented content (Caswell en Mojduszk, 1996, as cited in Messer et al., 2017; Morrow et al., 2022), the variable of recognition is crucially incorporated to explore the effectiveness of the AIGC labels.

Since human-made content is typically perceived as more authentic, and some research indicates that the ongoing development of AI makes it difficult for consumers to differentiate AI-generated from human-made content, this highlights the complex dynamics of perceived authenticity and engagement when consumers cannot identify the AI origin of content. Therefore, *labeling AIGC is hypothesized to reduce consumers' perceived authenticity and engagement with it (H2).*

### 2.4.3 Generation Z's Attitude toward AI and AIGC Regulation

Despite the initial steps towards a functioning AI Act, comprehensive regulation is still far from being achieved. Public opinion can significantly influence the adoption, use, and regulation of emerging technologies such as AI (Cave et al., 2019). Thus, it is crucial to research public perspectives, especially among younger audiences who will be most impacted by future regulations. Consequently, researchers have recently begun to examine public responses to AI in the arts industry and its potential threat to human creativity. Brauner et al. (2023) suggest that while some trust in AI exists, it remains a largely unknown territory, making it difficult to assess its opportunities and risks. This can lead to biased and irrational control beliefs in public perception. Increased awareness and information about AI, especially regarding the "black box," are needed for society to form well-informed opinions. Studies have found that the majority of young adults are ready to accept AI. However, they demand increased transparency and explainability of AI-based tools (Haggenmüller et al., 2021; Lazányi, 2019). Another implication of the rise of AI is data privacy. Data privacy seems to be the main concern among younger age groups, as well as other age groups (Haggenmüller et al., 2021), which suggests that they might also prioritize transparency and authenticity in AIGC to prevent misinformation and ensure trust.

When examining concerns about AIGC and its impact on human creativity, Gross (2023) highlights the public's fascination with AI-generated artworks, which often begin with simple text

prompts. Additionally, Gross emphasizes that people have varying perceptions about the extent to which AI should be used in creating art. A national survey conducted by the Pew Research Center among U.S. adults in December 2022 found that 31% of respondents viewed "using artificial intelligence (AI) to produce visual images from keywords" as a "major advance for the visual arts," while another 39% saw it as a "minor advance" (Funk et al., 2023).

A higher or lower demanding attitude toward AIGC regulation might significantly influence the effect of labeling. Schul and Knapp (1984) found that demand characteristics can impact attitude change, while Schultz and Oskamp (1996) demonstrated that higher demanding attitudes generally lead to more behavioral change. Brügger and Höchli (2019) suggest that a stronger attitude towards an issue strengthens the connections between related behaviors and increases motivation to accomplish underlying goals. Therefore, individuals with a higher demanding attitude toward AIGC regulation are likely to be more influenced by content labeling, affecting their perception of authenticity and engagement of AIGC.

Given these insights on Generation Z's attitude toward AIGC regulation and its impact on regulatory changes like content labeling, it is important to explore how Generation Z perceives the potential threat posed by AIGC to human creativity and their opinions on transparency requirements. Additionally, building on previous hypotheses, it is crucial to examine how this attitude toward AIGC regulation can affect the impact of AIGC labeling on perceived authenticity and engagement levels. Based on existing theory and previous hypotheses, this study predicts that *The effect of labeling, on perceived authenticity and engagement with AIGC, will be stronger for people with a more demanding attitude toward AIGC regulation than for people with a less demanding attitude (H3).*

Figure 1

Conceptual Model of Study
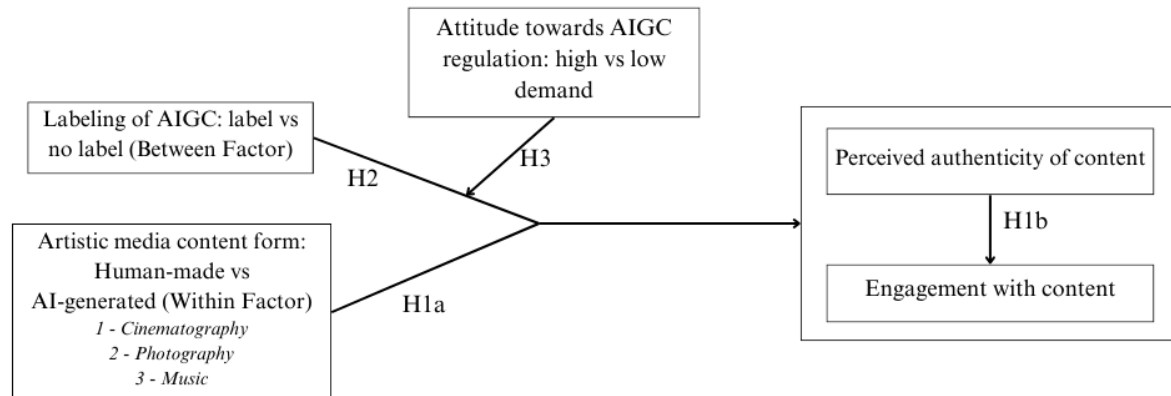
3 - Methodology

3.1 Study Design

This study employed a quantitative survey method with an experimental design. Participants were exposed to twelve pieces of content in a social media-like environment, featuring both human-made and AI-generated forms (within-subjects factor). In the control group, AIGC is unlabeled, while in the treatment group, it was labeled as such (between-subjects factor). The content used in the study was selected from three types of artistic media: four pieces each of cinematography, photography, and music, with each category containing two human-made and two AI-generated pieces. For each piece of content, the perceived authenticity and engagement value were measured. After the content was presented, the recognition of AIGC and the attitude toward AIGC regulation were measured. This methodology facilitates a comprehensive analysis of how content origin, labeling, perceived authenticity, and attitude toward regulation, collectively influence participant engagement in human-made and AI-generated artistic media content.

3.2 Participants

       This study included participants from Generation Z, defined as individuals born between 1997 and 2012. To guarantee the accuracy of the data and foster a thorough comprehension of the survey's contents, only English-proficient participants who were at least 18 years old were permitted to fill out the survey.

       The sampling procedure employed voluntary response sampling via online platforms as the distribution of the survey was done via personal contacts, social media, and SurveyCircle, an online platform for survey distribution and response collection from various users. Demographic information, including age, gender, and nationality, was collected to ensure that the treatment and control groups were comparable and to exclude any ineligible participants. Additionally, the study assessed individual engagement with artistic media content and specific preferences for different types of artistic media content through a 5-point slider, allowing for an exploratory analysis of how personal tastes may influence engagement with the content provided.

       The study initially involved a sample size of 143 participants, which was reduced to 105 ($M_{age} = 22.3$, $SD_{age} = 2.1$, $Min_{age} = 18$, $Max_{age} = 27$) after data cleaning, which mainly involved removing incomplete responses. Full demographic statistics and the distribution over the conditions are presented in Table 1.

Table 1

Participant Demographic Statistics

Group	Male (%)	Female (%)	Other (%)	Dutch (%)	German (%)	Other (%)	Mean Age	Mean Artistic Media Engagement
Labeled	26.4	69.8	3.8	88.7	7.5	3.8	22.2	3.57
Unlabeled	48.1	50.0	1.9	84.7	3.8	11.5	22.5	3.42
Total	37.1	60.0	2.9	86.7	5.7	7.6	22.3	3.27

Next to measuring the self-reported artistic media engagement, respondents rated their engagement of three specific types of artistic media content on a scale from 0 to 5: cinematography (M = 3.27, SD = 1.43), photography (M = 3.15, SD = 1.28), and music (M = 4.08, SD = 1.03). The responses indicate that, on average, participants do enjoy artistic media content, with music being the most enjoyed.

3.3 Stimuli Materials

To present different content, various AI systems were used, as well as content that was adapted from existing artists. For the AI-generated artistic photographs in this study, ChatGPT4 (chat.openai.com) was utilized, while the human-made counterparts were sourced from photography artists on Freepik and Pinterest. AI-generated music fragments were created using Udio (udio.com), with human-made music fragments obtained from YouTube. For cinematography, AI-generated fragments from YouTube and Vimeo were used.

3.3.1 Pre Test for Content

A pre-test (N=8) was conducted to select the best-fit content. For cinematography and photography, two human-made artworks were chosen in two different genres. Two or three equivalent AIGC counterparts were selected, and these pieces of content were presented opposite each other. Participants rated the artistic value from one to five stars and ranked the pieces of content based on their similarity to the proposed human-made content. The genres were chosen based on the available AIGC of sufficient quality, as AIGC is not yet advanced enough to cover all genres adequately. Many AIGC films focus on sci-fi or emotional storytelling with moving pictures, hence these genres were selected. In photography, portraits and landscapes are common, so these genres were chosen. In music, AI can create content in any genre. Thus, four genres were selected: Soul from the 60s, Rock and Roll from the 70s, Rap from the 90s, and Singer-songwriter from the 10s. Ultimately, the two music genres with the highest artistic value were selected for inclusion in the main survey.
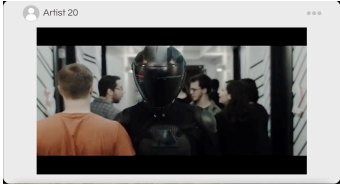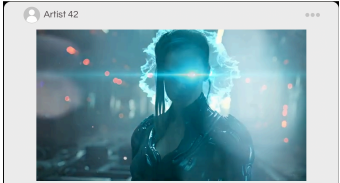
Table 2

Pre Test Descriptive Statistics

Content Type	Genre	Content piece	Mean Artistic Value	Most perceived as similar to human-made counterpart
Cinematography	Sci-fi	Pre_Cinematography_1	2.14	
		Pre_Cinematography_2	2.71	X
	Emotional Storytelling	Pre_Cinematography_3	4.29	X
		Pre_Cinematography_4	2.29	
Photography	Portrait	Pre_Photography_1	3.00	X
		Pre_Photography_2	3.00	
		Pre_Photography_3	3.14	
	Landscape	Pre_Photography_4	3.14	
		Pre_Photography_5	3.29	X
		Pre_Photography_6	2.86	
Music	60's Soul	Pre_Music_1	3.57	
		Pre_Music_2	3.29	
		Pre_Music_3	3.29	X
		Average	3.38	
	70's Rock	Pre_Music_4	2.71	
		Pre_Music_5	3.14	X
		Pre_Music_6	3.57	
		Average	3,14	
	90's Rap	Pre_Music_7	2.71	
		Pre_Music_8	3.14	X
		Pre_Music_9	2.43	
		Average	2,76	
	10's Singer Songwriter	Pre_Music_10	2.43	
		Pre_Music_11	3.00	
		Pre_Music_12	3.86	X
		Average	3,10	
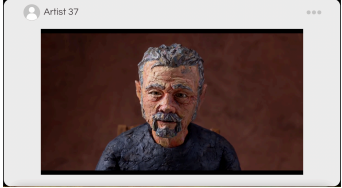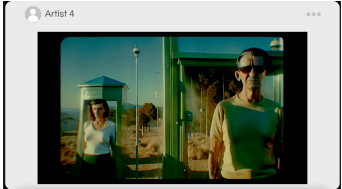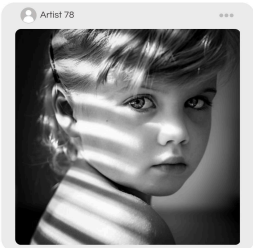
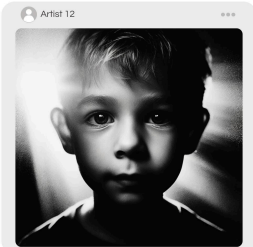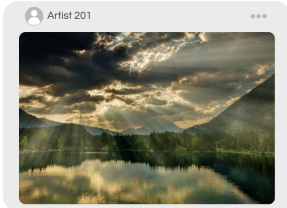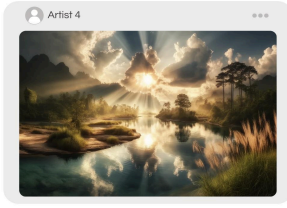The pre-test results showed clearly which content was the best to select (see Table 2). The music genres of '60s Soul' and '70s Rock and Roll' emerged as the most artistic. However, Pre_Music_12 in the '10's Singer Songwriter' genre received the highest artistic value and showed a great comparison with its human counterpart. Therefore, the genres '60s Soul' and '10's Singer Songwriter' were chosen, ensuring the use of the highest-rated AI songs that closely resembled the human-made versions. For '60s Soul', the song Pre_Music_3 was selected because its artistic value was comparable to the other songs, but it showed greater similarity to the human-made counterpart according to the respondents. For cinematography and photography, the most comparable content pieces were selected (Pre_Cinematography_2, Pre_Cinematography_3, Pre_Photography_5) as those also had the highest perceived artistic value. Only for Photography 'landscape' the piece with the highest mean artistic value was not chosen, as the artistic values did not differ much between the content pieces. Pre_Photography_1 was perceived most similar to the human-made counterpart and therefore used in the survey.
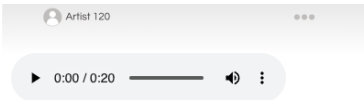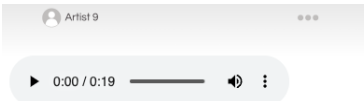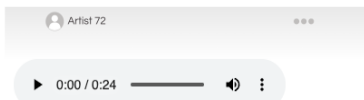
3.3.2 Artistic Media Content and Labeling

Table 3

Content pieces presented in survey

	Content category	Content name	Name / Artist	Year	Visual
1	Human-made Cinematography Sci-fi	HM_Cinema_Scifi	SYNC / Hasraf Dullul	2015	
2	AI-generated Cinematography Sci-fi	AIG_Cinema_Scifi	Genesis / Dr. Sam Khoze	2024	

3	Human-made Cinematography Emotional	HM_Cinema_Emo	Memorable / Bruno Collet	2020	
4	AI-generated Cinematography Emotional	AIG_Cinema_Emo	Thank You For Not Answering / Paul Trillo	2023	
5	Human-made Photography Portrait	HM_Photo_Portrait	/ Ewa Wojczakowska-Skrobisz	-	
6	AI-generated Photography Portrait	AIG_Photo_Portrait	*Made with OpenAI ChatGPT4*	2024	
7	Human-made Photography Landscape	HM_Photo_Landscape	/ Jlpenio - Freepik	-	
8	AI-generated Photography Landscape	AIG_Photo_Landscape	*Made with OpenAI ChatGPT4*	2024	
9	Human-made Music 60s Soul	HM_Music_60s	(I'm A) Roadrunner / Junior Walker & The Allstars	1965	

10	AI-generated Music 60s Soul	AIG_Music_60s	*Published on Udio.com as: 'I Wanna Go Home (I Really Hate It Here)' by The Gate City Boys*	2024	
11	Human-made Music 10s Songwriter	HM_Music_10s	Permanent / David Cook	2009	
12	AI-generated Music Emotional Piano	AIG_Music_10s	*Published on Udio.com as: The Comet.*	2024	

Labeling of AIGC for the treatment group was designed based on the practices of Meta and TikTok, where the labels simply state "made with AI" or "AI-generated.". However, the label in this study was made slightly more prominent to ensure it was noticed. Additionally, both the text and icon were designed to be as neutral as possible to minimize any influence on the participants' reactions to the labeling.

Figure 2

Labeling of artistic photography content (labeled vs. not labeled)

AIG_Photo_Portrait and HM_Photo_Portrait
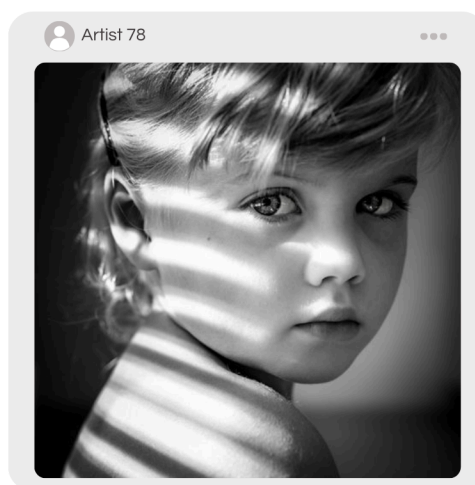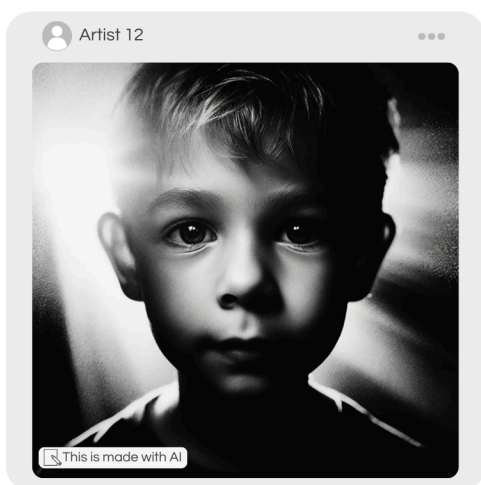
3.4 Procedure

Before the start of the study, ethical approval by the Ethics Committee of the University of Twente (Approval code: 240830) was obtained. The data collection period started on May 16th 2024. All participants were able to join until May 30th 2024.

Prior to entering the survey, participants were required to review and agree to an informed consent form (see Appendix A). This form detailed the study's risks, the participants' right to withdraw at any time, and the confidentiality and anonymity of their responses. To prevent bias, the purpose of the study was not disclosed in the consent form, but a debriefing (see Appendix A) took place immediately after the last questionnaire. Participants gave their consent by checking a box, allowing them to proceed to the survey hosted on Qualtrics, which they accessed via a URL. Responses were completely anonymous. Email addresses submitted for the prize draw were immediately separated from all other data.

The survey was divided into three sections. Initially, demographic information was collected from the participants. The second section simulated a social media environment where content was displayed and could be liked using a star ranking system. The 12 pieces of content were presented in a randomized order to minimize comparisons and encourage participants to focus on evaluating each piece independently. In this setup, the control group viewed content without labels, while the treatment group saw all AIGC labeled as such. Subsequently, the survey assessed respondents' perceived authenticity of the content. One control item to ensure participants' attention was included in the perceived authenticity instruments of one of the content pieces. After all content was shown, recognition of AIGC was measured with a single item. The final section explored participants' attitudes towards AIGC regulation using a six-item instrument.

3.5 Measures

3.5.1 Measures per content piece

      Engagement with content was measured through a star ranking system that mimics typical social media interfaces, where viewers can express their liking directly below the content. Participants rated each piece using a scale from 1 to 5 stars, with 5 stars indicating "I like the content a lot" and 1 star indicating "I don't like the content at all." This method simplified the measurement of engagement while maintaining familiarity of media platforms for the participants. Additionally, one control item "This artwork captures my interest" was included in the perceived authenticity scale, to complement the star rating.

      Perceived authenticity of content was measured, after a piece of content was presented, by combining different instruments. Various studies have explored different dimensions of perceived credibility. This survey employed a short 4-item scale to minimize survey completion time and to maintain participants' focus throughout the survey. The scale was designed by incorporating elements from the perceived creative authenticity scale developed by Valsesia et al. (2015). This approach ensured the instrument effectively assessed the perceived authenticity of the artworks presented to consumers while maintaining conciseness for the participants. The participants were asked to complete a 4-item questionnaire (see Appendix B), on a 5-point Likert scale (from 1 = "strong disagreement" to 5 = "strong agreement") for every content piece. The instrument included items such as *"The work reflects originality"* and "*This artwork reflects true inspiration rather than commercial purposes"*. Additionally, a single-item measure of authenticity was included to provide a straightforward assessment as well. The scale, which consisted of 48 items (4 items for all 12 content pieces), showed high internal consistency (α = 0.876), indicating that the items were highly correlated and reliably measured the same underlying construct of perceived authenticity.

3.5.2 Measures after the content was presented

Recognition of AIGC was measured with a single item after all content was presented to prevent bias during content evaluation. Participants were asked to identify how many pieces of content they recognized as AI-generated. For the treatment group, this served as a control question to determine if they noticed the labeling. For the control group, this question aimed to determine if respondents could recognize AIGC without labeling, which could influence their engagement levels with the content. The recognition variable ranged from 1 to 4, with 1 indicating no content pieces recognized, 2 indicating 1-3 pieces recognized, 3 indicating 4-6 pieces recognized, and 4 indicating 7 or more pieces recognized. Given that there were six AIGC pieces, a score of 3 is closest to recognizing every piece.

Attitude toward AIGC regulation was measured using a custom-designed instrument at the end of the survey. This scale evaluated participants' opinions on the need for labeling AI content, ethical concerns regarding AI competition with human creators, and the heightened importance of transparency in artistic compared to non-artistic content. Participants responded to a 6-item questionnaire (see Appendix B) on a 5-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). Higher scores on this scale indicated a stronger demand for regulation of AIGC. The questionnaire included items like *"AI-generated content should always be labeled clearly as such"* to assess views on transparency regulations and *"I am worried that AI will replace human creativity in the arts"* to assess concerns about AI's impact on human creativity. The scale demonstrated low internal consistency, with a Cronbach's alpha of 0.521 ($\alpha = 0.521$). To improve the internal consistency, an item-total correlation was performed and identified the two best-performing items (*"AI-generated content should always be labeled clearly as such" with r = 0.69* and *"Transparency in AI-generated content is essential for maintaining artistic integrity." with r = 0.81)*. Using these items, the variable of attitude toward AIGC regulation was refined, resulting in a scale that primarily measures the attitude towards content origin transparency of AIGC. The scale demonstrated acceptable internal consistency with a Cronbach's alpha of 0.74 ($\alpha = 0.74$). Therefore, only these two items were included for analyzing the attitude toward AIGC regulation.

3.6 Data Analysis

The data analysis for this study was conducted using R Studio, a comprehensive software environment for statistical computing and graphics. The statistical methods applied included descriptive statistics to summarize the data and inferential statistics to test the hypotheses. Descriptive statistics such as mean, median, and standard deviation were calculated to provide an overview of the data distribution and central patterns. Additionally, various demographic statistical analyses were performed to understand the composition of the sample.

For the inferential statistics, several tests were conducted. An independent T-test was performed on the variable of recognition with labeling as the independent variable. This test was used to determine if there were significant differences in recognition of AIGC based on the presence or absence of labels. To test Hypothesis 1, a paired T-test was utilized as participants were shown 12 content pieces (6 human-made and 6 AI-generated), with each content piece having an opposite in the same genre. In this analysis, human-made versus AI-generated content was treated as a within-subjects factor, allowing for the comparison of engagement and perceived authenticity between the two types of content within the same participants. Furthermore, a linear regression model was constructed separately for human-made and AI-generated content, to examine the effect of perceived authenticity on engagement.

For Hypothesis 2, a between-subjects analysis was conducted with labeling versus no labeling on all AIGC (6 pieces). An independent T-test was used for this analysis to assess the impact of labeling on the engagement and perceived authenticity of AIGC. Although the hypothesis focuses on AIGC, the same analysis was also conducted for human-made content to uncover any additional findings.

The analysis of Hypothesis 3 was executed with a 2x2 ANOVA to examine the effects of labeling and demanding attitudes on engagement and perceived authenticity. Two groups were created based on the median split of attitudes toward AIGC regulation (high and low), and the interaction with the presence or absence of labeling was tested. The analysis was conducted separately for AIGC, using the mean engagement and authenticity scores. Descriptive statistics and inferential statistics, including F-values and

p-values, were measured to provide insights into the main and interaction effects of the factors considered.

The analysis methods were carefully chosen and executed to ensure the accuracy and reliability of the results. Data cleaning was performed beforehand to identify and address any missing or outlier values, and all incomplete responses were removed.

4 - Results

4.1 Perceived Authenticity and Engagement of Human-made vs AI-generated Content

To examine whether participants perceived human-made artistic content as more authentic and engaged less with AIGC (as stated in H1), a paired T-test was conducted with human-made versus AI-generated content as the within-subjects factor. The analysis revealed significant results for 5 out of the 6 content pairs for the variable of perceived authenticity (see Table 4) and for 3 out of the 6 content pairs for the variable of engagement (see Table 5).

Table 4

Descriptive and Inferential Statistics for the Perceived Authenticity of Human-made and AI-generated Artistic Media Content

Type of content pairs	Mean Human-made (SD)	Mean AI-generated (SD)	Difference in Mean	T-Value	P-value
HM_Cinema_Scifi vs AIG_Cinema-Scifi	3.02 (0.82)	2.78 (0.97)	0.24	2.30	.02
HM_Cinema_Emo vs AIG_Cinema_Emo	3.83 (0.96)	3.32 (1.03)	0.50	3.87	<.01
HM_Photo_Portrait vs AIG_Photo_Portrait	3.37 (0.96)	2.73 (1.06)	0.64	5.28	<.01
HM_Photo_Landscape vs AIG_Photo_Landscape	3.41 (0.96)	2.81 (1.12)	0.60	6.41	<.01
HM_Music_60s vs AIG_Music_60s	3.95 (0.68)	3.43 (0.81)	0.52	5.92	<.01
HM_Music_10s vs AIG_Music_10s	3.61(0.90)	3.47 (0.90)	0.14	1.52	.13

'AIG' = AI-Generated

Table 5

Descriptive and Inferential Statistics for the Engagement of human-made and AI-generated artistic media content

Type of content pairs	Mean Human-made (SD)	Mean AI-generated (SD)	Difference in Mean	T-Value	P-value
HM_Cinema_Scifi vs AIG_Cinema-Scifi	2.92 (1.11)	2.86 (1.18)	0.06	0.49	.63
HM_Cinema_Emo vs AIG_Cinema_Emo	2.97 (1.67)	2.92 (1.20)	0.05	0.39	.70
HM_Photo_Portrait vs AIG_Photo_Portrait	2.94 (1.07)	2.60 (1.03)	0.34	3.05	<.01
HM_Photo_Landscape vs AIG_Photo_Landscape	3.62 (1.06)	3.12 (1.21)	0.50	6.00	<.01
HM_Music_60s vs AIG_Music_60s	3.58 (0.97)	3.10 (0.56)	0.48	5.69	<.01
HM_Music_10s vs AIG_Music_10s	3.25 (1.03)	3.21 (1.01)	0.04	0.43	.67

Note: 'HM' = Human-made

'AIG' = AI-Generated

As you can see in Table 4, all human-made content was perceived as significantly more authentic than their AI-generated counterparts, except for the Music 10s genre. Additionally, all human-made photography content received significantly more engagement than their AI-generated counterparts. No significant differences were found for both cinematography content pairs and also here the music 10s genre (see Table 5). The greatest differences in mean perceived authenticity and engagement were also observed in photography content pieces. Furthermore, HM_Music_60s and AIG_Music_60s exhibited a relatively high difference in both perceived authenticity and engagement. The highest perceived authenticity was measured for HM_Music_60s (M = 3.95) among human-made content and AIG_Music_10s (M = 3.47) among AIGC, with the last one also rated as the highest in artistic value

during the pre-test. The highest engagement was noted for HM_Photo_Landscape (M = 3.62) among

human-made content and again for AIG_Music_10s (M = 3.21) among AIGC.

To further investigate whether perceived authenticity has an effect on engagement, a linear

regression model was constructed for both human-made and AI-generated content. The analysis revealed

that perceived authenticity significantly predicts engagement for both human-made and AI-generated

content. For human-made content, the coefficient for authenticity was 0.69 ($t(628) = 17.94$, $p < .001$),

indicating that engagement increases by approximately 0.69 for each unit increase in perceived

authenticity. For AIGC, the coefficient for authenticity was 0.64 ($t(628) = 19.92$, $p < .001$), showing that

engagement increases by approximately 0.64 for each unit increase in perceived authenticity.

4.2 Recognition of AIGC

The descriptive statistics for the Recognition variable (See Table 3) showed that the labeled group

had a visibly higher mean recognition of AIGC. Here, a score of 3 is equivalent to recognizing the right

number of AIGC pieces.

Table 3

Descriptive statistics for Recognition of AIGC per condition

Condition	Count	Mean	SD	Min	Max	Median
Labeled	52	2.87	0.63	2	4	3
Unlabeled	53	2.55	0.72	1	4	3

The independent T-test indicated that recognition of AIGC was significantly higher when labeled

than when non-labeled ($t(103) = -2.41$, $p = .02$). Additionally, the 95% confidence interval for the

difference in means was [-0.5802387, -0.0561909], which does not include zero, further supporting the

presence of a significant difference between the groups.

4.3 The effect of Labeling on Perceived Authenticity and Engagement of AIGC

To examine the effect (stated in H2) of labeling AIGC as such in reducing perceived authenticity and engagement with AIGC, an independent T-test was conducted with labeled versus unlabeled content as the between-subjects factor. This test was conducted for every content piece and for both perceived authenticity and engagement.

Table 6

Mean Perceived Authenticity (SD) per content type Labeled vs Unlabeled content

Content piece	Labeled Content	Unlabeled Content	T-Value	P-value
AIG_Cinema_Scifi	2.81 (1.05)	2.74 (0.90)	0.38	.71
AIG_Cinema_Emo	3.22 (1.00)	3.43 (1.06)	-1.04	.30
AIG_Photo_Portrait	2.49 (1.09)	2.96 (0.99)	-2.27	.03
AIG_Photo_Landscape	2.62 (1.15)	3.00 (1.07)	-1.75	.08
AIG_Music_60s	3.25 (0.85)	3.60 (0.75)	-2.22	.03
AIG_Music_10s	3.40 (0.88)	3.54 (0.93)	-0.81	.42
HM_Cinema_Scifi	3.19 (0.83)	2.86 (0.77)	2.07	.04
HM_Cinema_Emo	3.85 (1.06)	3.81 (0.86)	0.22	.83
HM_Photo_Portrait	3.30 (1.02)	3.44 (0.91)	-0.74	.46
HM_Photo_Landscape	3.45 (0.95)	3.38 (0.97)	0.38	.70
HM_Music_60s	3.87 (0.69)	4.02 (0.66)	-1.11	.27
HM_Music_10s	3.60 (0.88)	3.62 (0.92)	-0.11	.91

Table 7

Mean Engagement (SD) per content type Labeled vs Unlabeled groups

Content piece	Labeled Content	Unlabeled Content	T-Value	P-value
AIG_Cinema_Scifi	3.09 (1.20)	2.64 (1.13)	1.95	.05
AIG_Cinema_Emo	2.90 (1.14)	2.93 (1.26)	-0.13	.90
AIG_Photo_Portrait	2.56 (1.12)	2.64 (0.93)	-0.42	.68
AIG_Photo_Landscape	3.03 (1.25)	3.21 (1.18)	-0.75	.45

AIG_Music_60s	3.09 (0.44)	3.10 (0.66)	-0.16	.88
AIG_Music_10s	3.27 (1.01)	3.16 (1.02)	0.55	.58
HM_Cinema_Scifi	3.18 (1.15)	2.67 (1.01)	2.48	.01
HM_Cinema_Emo	3.10 (1.15)	2.85 (1.18)	1.09	.28
HM_Photo_Portrait	2.87 (1.21)	3.01 (0.91)	-0.69	.49
HM_Photo_Landscape	3.57 (1.06)	3.67 (1.07)	-0.49	.62
HM_Music_60s	3.50 (0.94)	3.70 (0.99)	-1.31	.19
HM_Music_10s	3.37 (1.00)	3.14 (1.06)	1.11	.27

As shown in Table 6, the labeled group had significantly lower perceived authenticity values for AIGC in 2 out of 6 cases, AIG_Photo_Portrait and AIG_Music_60s (p = .03 for both). For AIG_Photo_Landscape, there was a trend toward lower perceived authenticity in the labeled group, but it was only marginally significant (p = .08). Other pieces showed no significant differences in perceived authenticity between the groups.

In Table 7, it is shown that the unlabeled group had no significantly higher engagement values for AIGC. Only AIG_Cinema_Scifi showed higher engagement (M = 3.09) in the labeled group compared to the no label group (M = 2.64), with a t-value of 1.95 and a p-value of .05, indicating a marginally significant difference. This content piece also demonstrated the largest difference in engagement between labeled and unlabeled groups. Other content pieces showed p-values well above the standard threshold of .05.

Additional analyses were performed to explore whether the labeling AIGC also influenced human-made content. The analysis revealed a significant difference in perceived authenticity between the labeled and unlabeled groups for HM_Cinema_Scifi (p = .04), with a higher value when labeled. Other pieces showed no significant differences in perceived authenticity between the groups (see Table 6). For engagement, a significantly higher value was observed in the labeled group compared to the unlabeled group for again HM_Cinema_Scifi (p = .01). Other pieces showed no significant differences in engagement levels between the groups (see Table 7).

4.4 The Impact of Demand Levels for AIGC Regulation on the Effect of Labeling

The analysis of Hypothesis 3 aimed to understand the impact of attitude towards AIGC regulation as a moderator of the effect of labeling on perceived authenticity and engagement for AIGC. Descriptive statistics indicated a mean demand for AIGC regulation (M = 4.35, SD = 0.81), with a median of 4.5, which was used to split the groups into high and low demand categories. The high demand group had a mean of M = 4.85 (SD = 0.23), while the low demand group had a mean of M = 3.53 (SD = 0.73).

Table 8

Test of Between-Subjects Effect Perceived Authenticity and Engagement for AIGC

Source		F-value	P-value
Label	Perceived Authenticity	5.64	.02
	Engagement	0.00	>.99
Attitude towards Regulation	Perceived Authenticity	0.11	.75
	Engagement	1.39	.24
Label * Attitude towards Regulation	Perceived Authenticity	4.85	.03
	Engagement	2.90	.09

Table 9

Summary of Means for AIGC

Label Group	Regulation Demand Group	Perceived Authenticity (SD)	Engagement (SD)
No	High	3.40 (0.56)	3.16 (0.73)
No	Low	3.10 (0.60)	2.82 (0.53)
Yes	High	2.85 (0.60)	2.96 (0.49)
Yes	Low	3.08 (0.61)	3.02 (0.64)

Figure 3

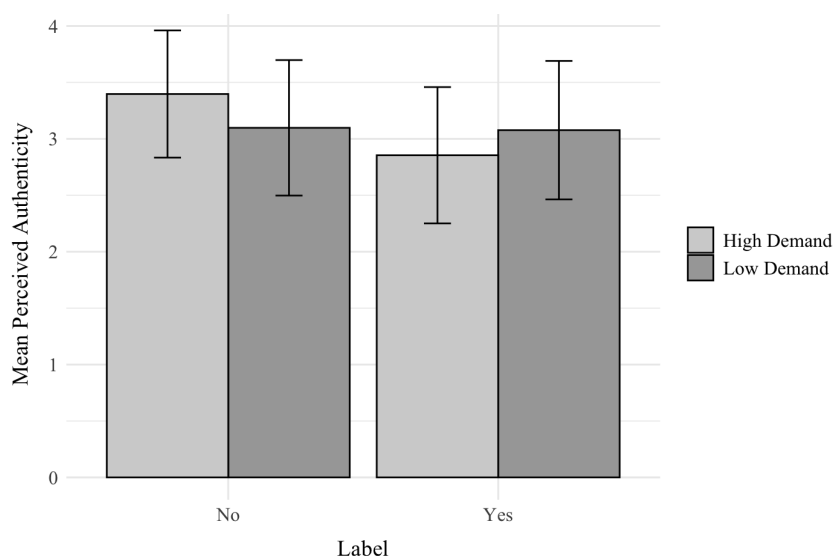*Estimated Marginal Means of AIGC Perceived Authenticity*

Table 8 shows the between-subjects effects of labeling and attitude towards regulation, split in high demand and low demand, on perceived authenticity and engagement for all AIGC together, as the attitude towards regulation was measured over no specific artistic content genres but AIGC as a whole. It is shown that the attitude toward AIGC regulation has no significant effect on either the perceived authenticity or the engagement of AIGC. However, the interaction between labeling and attitude toward AIGC regulation was significant, suggesting that the effect of labeling on perceived authenticity is moderated by the attitude toward AIGC regulation. Participants with a higher demand for AIGC regulation, rated labeled AI content as less authentic compared to those with a lower demand for AIGC Regulation (see Table 9 and Figure 3). Additionally, Pairwise comparisons indicated a significant mean difference between the "No Label, High Demanding Attitude" group and the "Label, High Demanding Attitude" group (Mean Difference = 0.543, p < .01). This suggests that within the high demanding attitude group, labeled AI content was perceived as significantly less authentic than unlabeled AI content.

In terms of engagement, there were no significant main effects of labeling, or attitude toward AIGC regulation (see Table 8), but the interaction effect was marginally significant, indicating a potential trend where labeling might impact engagement differently depending on demand for AIGC Regulation. In

pairwise comparisons a significant mean difference between the "No Label, Low Demanding Attitude" group and the "No Label, High Demanding Attitude" group (Mean Difference = -0.338, p = 0.047) was found, suggesting that within the no label condition, individuals with higher demanding attitudes engaged more with the AIGC.

An additional analysis was done for human-made content, the 2x2 ANOVA showed no significant main effects of labeling on perceived authenticity, $F(1, 101) = 0.056$, $p = 0.8130$, or engagement, $F(1, 101) = 0.671$, $p = 0.415$. However, the main effect of attitude toward AIGC regulation on perceived authenticity was marginally significant, $F(1, 101) = 3.036$, $p = 0.0845$, suggesting that individuals with a higher demand for AIGC regulation might perceive human-made content as slightly more authentic. There were no significant interactions between labeling and attitude toward AIGC regulation for either perceived authenticity, $F(1, 101) = 0.833$, $p = 0.3636$, or engagement, $F(1, 101) = 1.098$, $p = 0.297$. This indicates that neither labeling nor attitude towards regulation significantly influenced engagement with human-made content.

While only two significant differences were found for individual content pieces in perceived authenticity between labeled and unlabeled groups, Table 8 shows that the 2x2 ANOVA, initially executed for H3, revealed a significant main effect of labeling on perceived authenticity (H2). This indicates that labeling significantly affects how authentic AI content is perceived overall. Additionally, Table 8 shows that the main effect of labeling on AIGC engagement was not significant ($p > .99$), consistent with the results for individual content pieces.

4.5 Exploratory findings

Further analysis investigated the relationship between self-reported liking of different artistic media content and the actual engagement levels with both human-made and AI-generated content. The results were gathered across the three different media types.

Table 10

Correlation and Regression Analysis for Self-Reported and Actual Engagement

Content Type		Correlation (r)	Intercept (p-value)	Coefficient (p-value)	R2
Cinematography	Human-made	.19	2.60 (<.01)	0.11 (.05)	.04
	AI-generated	.14	2.61 (<.01)	0.09 (.16)	.02
Photography	Human-made	.30	2.69 (<.01)	0.19 (<.01)	.09
	AI-generated	.12	2.58 (<.01)	0.09 (.22)	.01
Music	Human-made	.16	3.00 (<.01)	0.11 (.10)	.03
	AI-generated	.07	2.99 (<.01)	0.04 (.51)	>.01

As shown in Table 10, analysis found varying degrees of relationships between self-reported liking and engagement with different types of artistic media content. For human-made cinematography, a marginally significant positive effect was observed, whereas AI-generated cinematography showed no significant effect. Human-made photography demonstrated a significant positive effect, unlike AI-generated photography. For music, neither human-made nor AI-generated content showed significant effects.

4.6 Summary of Hypotheses

Table 12

Results of Hypotheses

Hypothesis	Relation	Result	Explanation
H1	Perceived Authenticity, Engagement	Supported	The results support the hypothesis that human-made artistic content has higher perceived authenticity and, to a lesser extent, higher engagement compared to AI-generated artistic content. With perceived authenticity having a significant positive effect on engagement for both human-made and AI-generated content.

| H2 | Content Labeling, Engagement, Perceived Authenticity | Partially supported | The main effect of labeling on perceived authenticity of AIGC is significant, but not all content pieces show this significance. Labeling has no significant effect on engagement of AIGC and there are unexpected effects on human-made content. |
| H3 | Attitude toward AIGC Regulation, Labeling of AIGC, Perceived Authenticity, Engagement | Partially supported | The impact of labeling on perceived authenticity is significantly moderated by attitude toward AIGC regulation. The impact of labeling on engagement approached significance but did not prove to significantly moderate the attitude toward AIGC regulation. |

5 - Discussion

5.1 Summarized Main Findings

This research aimed to gain a deeper understanding of the engagement with AI-generated artistic media content compared to human-made artistic media content, focusing on the effect of labeling and the attitudes towards the regulation of AIGC among Generation Z.

The first hypothesis explored whether human-made artistic media content is perceived as more authentic and more engaging than AI-generated artistic media content. This hypothesis was accepted, as 5 out of 6 content pairs showed that human-made content was significantly perceived as more authentic than AIGC, and 3 out of 6 content pairs demonstrated significantly higher engagement levels for human-made content. Furthermore, perceived authenticity was found to have a significant effect on engagement.

A control analysis revealed that labeling AIGC content did significantly influence participants' ability to recognize AIGC. The second hypothesis then examined if labeling AIGC significantly affects perceived authenticity and engagement. This hypothesis was partially supported. There was no strong

evidence that labeling AIGC significantly decreases engagement or perceived authenticity for separate content pieces. Only two content pieces showed this effect on perceived authenticity. Furthermore, labeling AIGC appeared to increase engagement and perceived authenticity for some human-made content pieces, suggesting a complex effect of labeling on audience perceptions. The overall effect of labeling on perceived authenticity did show significance, showcasing that the perceived authenticity of AIGC can be affected by labeling, with significant results in some instances.

The third hypothesis investigated whether attitude toward AIGC regulation significantly moderates the effect of labeling on perceived authenticity and engagement of AIGC, with the expectation that a more demanding attitude toward AIGC regulation will predict a stronger effect. The results indicated that this is the case for the effect of labeling on the perceived authenticity of AIGC. Although the effect of labeling on the engagement of AIGC was not significantly moderated by the attitude toward AIGC regulation, the results approached significance. Consequently, this hypothesis is partially supported.

5.2 Perceived Authenticity and Engagement in Human-made vs AI-generated Content

5.2.1 Key Findings

Results from this study showed that human-made artistic media content is perceived as more authentic and engaged with more. Human-made content had significantly higher perceived authenticity values in 5 out of 6 cases and significantly higher engagement values in 3 out of 6 cases. Furthermore, perceived authenticity does have a significant effect on the engagement for both human-made and AI-generated content.

5.2.2 Interpretation of Findings

The only piece of content that was not significantly perceived as less authentic than its human-made counterpart was AIG_Music_10s, highlighting the increasing ability of AI to create music

that is perceived as authentic. A possibility is that this content piece is simply of exceptionally high quality, as it was perceived as the most authentic and engaged with the highest among all AI-generated artistic media shown. Furthermore, the engagement was not significantly higher for three human-made content pieces, specifically the two cinematography pieces (HM_Cinema_Emo and HM_Cinema_Scifi) and again the music piece HM_Music_10s. For the cinematography content, both human-made and AI-generated versions had relatively low mean engagement scores, suggesting that this particular medium might not have resonated strongly with participants regardless of the content origin. Additionally, the music piece HM_Music_10s did not show significantly higher engagement compared to its AI counterpart, which also did not differ significantly in perceived authenticity. This further indicates that the AI-generated music in this instance was particularly compelling, aligning closely with the perceived quality, authenticity and engagement levels of the human-made version. Interestingly, both perceived authenticity and engagement showed significantly higher values for human-made photography, highlighting the still limited ability of AI to create truly artistic photographs.

These findings are consistent with the Social Presence Theory (Short et al., 1976), which suggests that content created by humans tends to evoke more intense emotional reactions and engagement because it fosters a sense of social presence. The statistical evidence of this research indicates a strong correlation between perceived authenticity and engagement. For example, the analysis showed that perceived authenticity had a significant positive effect on engagement for both human-made and AI-generated content. This highlights the importance of authenticity as a key driver of consumer engagement in artistic media. This finding aligns with Valsesia et al. (2015), who emphasized that creative authenticity significantly influences consumer engagement. Consumers likely value the emotional and creative effort perceived in human artistic expressions, as seen in this research.

It is interesting to note that AI has not yet achieved the capability to recreate authentically artistic photographs. The photography genres included in the study, portrait and landscape, are both influenced by very natural elements. These genres do not incorporate fictional components and are therefore heavily based on perceived authenticity and emotional response. Maares et al. (2021) defined perceived

authenticity as a concept used to evaluate the genuineness and originality of objects or individuals. AI might lack the ability to create authentic representations of faces, trees, and water, for example. These findings align with Yang et al. (2024), who suggested that nature fosters a sense of authenticity. Thus, the inability of AI to capture these natural elements convincingly might explain why human-made photographs in these genres were significantly perceived as more authentic and engaging.

5.3 Recognition of AIGC

5.3.1 Key Findings

The independent t-test reveals a statistically significant difference in the recognition of AIGC between participants exposed to labeled content and those who were not. Specifically, participants in the labeled group recognized more pieces of content as AIGC compared to those in the unlabeled group. This finding suggests that labeling content can significantly influence participants' ability to recognize AIGC.

5.3.2 Interpretation of Findings

These results align with existing theories on content labeling. Previous research, such as the studies by Köles et al. (2024) and Lim & Lee (2023), has demonstrated that origin disclosure, through labeling, significantly impacts the recognition of AIGC. The findings of this study confirm this research, highlighting that labeling serves as an effective tool for enhancing the transparency and recognition of AIGC among consumers.

Furthermore, the significance of these findings is underscored by the current regulatory landscape. With the introduction of the EU AI Act mandating clear labeling of AIGC, the results provide empirical support for these regulatory measures. The enhanced recognition of AIGC due to labeling not only fosters greater transparency but also empowers consumers to make more informed judgments about the content they engage with.

5.4 Content Labeling and the effect on Perceived Authenticity and Engagement in Human-made vs

AI-generated content

5.4.1 Key Findings

Hypothesis 2 proposed that labeling AIGC would decrease its perceived authenticity and engagement. The results of this study provide mixed support for this hypothesis. While labeling AIGC as such did lead to a significant decrease in perceived authenticity for some pieces (AIG_Photo_Portrait and AIG_Music_60s), it did not consistently result in lower engagement levels. However, the overall effect of labeling on perceived authenticity of AIGC was found to be significant.

5.4.2 Interpretation of Findings

Certain AIGC pieces did not show a significant difference in perceived authenticity or engagement when labeled, suggesting that the impact of labeling may vary depending on the type and quality of the content. For instance, AIG_Music_10s, which was not significantly different in perceived authenticity compared to its human-made counterpart, also did not show a significant drop in engagement when labeled. This indicates that high-quality AIGC can still engage audiences effectively, even when its origin is disclosed.

However, AIG_Music_60s presents different results. This content piece was considered the most authentic of all AIGC and showed one of the highest engagement values among all AIGC, alongside AIG_Music_10s. Despite this, there was a significant decrease in perceived authenticity when labeled. AIG_Music_60s was an AI-generated soul song from the 60s, and its counterpart, HM_Music_60s, also had the highest engagement and perceived authenticity values among all human-made content. Despite the music style not being current, older music might be perceived as more authentic because it retains and maintains a number of qualities that are missing from allegedly superior forms of musical reproduction, as noted by Goulding & Derbaix (2019). This retention of qualities fosters a deeper, more authentic interaction between human beings and technology. The findings of this study build upon this effect, as

authenticity significantly decreased for this piece of AIGC when a label was added, demonstrating the expected impact of content origin labeling on perceived authenticity.

This effect of authenticity related to the perceived era of the content can be seen in the opposite direction as well. The only human-made content piece that showed significant changes in both engagement and perceived authenticity with the addition of AIGC labels was HM_Cinema_Scifi. This piece was from a Sci-fi short film; filmed, directed, and edited by humans. Sci-fi has long been seen as a modern genre due to its futuristic content (Sterling, 1998). Moreover, fictional content is generally perceived as less authentic (Pouliot & Cowen, 2007), as striving for authenticity in fiction, especially in depicting cultures and peoples, is challenging (Hereniko, 2019). This is reflected in the results of this study. HM_Cinema_Scifi had the lowest engagement and perceived authenticity values among all human-made content, and AIG_Cinema_Scifi had the lowest among all AIGC. Notably, this AIGC piece showed a marginally significant increase in engagement when labeled. Labeling AIGC thus worked in favor of both AI-generated and human-made content in this genre. It is expected that the effect of labeling enhanced the impression of AI's capabilities and caused more emotion and sentiment in human-made pieces, thereby influencing both engagement and perceived authenticity (Estes et al., 2018; Short et al., 1976).

Photography types of content again emerged as significant factors in perceived authenticity. AIG_Photo_Portrait showed a significant drop in perceived authenticity when labeled, with AIG_Photo_Landscape experiencing a marginally significant drop. This further supports the idea that nature fosters authenticity (Yang et al., 2024) and aligns with Winner's (2018) finding that art appreciation extends beyond visual characteristics to include historical context, the artist's touch, and understanding the creator's intent. Once participants noticed the photography pieces were AI-generated, their perceived authenticity dropped. Notably, this did not affect engagement, suggesting that AI photography content can still engage audiences just as effectively when labeled.

While searching for significant differences between individual content pieces, the effect of labeling on perceived authenticity was not significant for most of them. However, during the analysis of

Hypothesis 3, the overall effect of labeling on perceived authenticity of AIGC was found to be significant, suggesting that labeling does influence how audiences perceive the authenticity of AIGC when considered collectively, even if it does not consistently impact perceived authenticity in individual cases. This implies that, while not fully significant in this research, the effect of labeling on perceived authenticity of AIGC does show patterns and should remain a central focus in AIGC research, as it can be a pivotal factor for consumer interaction studies.

In conclusion, the hypothesis that labeling AIGC would significantly reduce both perceived authenticity and engagement of AIGC was partially supported. Labeling significantly affected perceived authenticity in some instances, but it did not have a consistent impact on engagement. Furthermore, some interesting effects of AIGC labeling were found on human-made content. These findings underscore the complex relationship between content origin, perceived authenticity, and audience engagement, highlighting the need for further research to unravel these dynamics.

5.5 The effect of Attitude toward AIGC Regulation and Content Labeling on Perceived Authenticity and Engagement of AIGC

5.5.1 Key Findings

Hypothesis 3 investigated whether attitudes toward AIGC regulation moderate the impact of labeling on perceived authenticity and engagement with AIGC, with the expectation that the effect will be stronger for people with a more demanding attitude toward AIGC regulation than for people with a less demanding attitude. The results provided nuanced insights. A very high mean demand for regulation was found. Furthermore, a significant interaction effect between labeling and regulatory attitudes was found. Specifically, participants with high demanding attitudes perceived labeled AI content as less authentic. While labeling did not significantly influence overall engagement levels, there was a marginally significant interaction effect suggesting that regulatory attitudes might affect engagement differently depending on whether the content was labeled.

5.5.2 Interpretation of Findings

The mean demand for regulation showed that Generation Z has an exceptionally high demand for AIGC regulation, indicating that Gen Z is particularly concerned about the implications of AIGC. This high demand underscores their preference for transparency in the use of AI in artistic media, aligning with the research of Haggenmüller et al. (2021) and Lazányi (2019), which found that Gen Z demands increased transparency and explainability of AI.

The interaction effect between labeling AIGC and perceived authenticity was found significant. Further results showed that participants in the "No Label, High Demanding Attitude" group rated the authenticity of AI content higher compared to those in the "Label, High Demanding Attitude" group. This suggests that individuals who are more critical or concerned about regulation are particularly sensitive to authenticity cues provided by labels, possibly viewing labeled AI content with greater skepticism. After finding a significant effect of labeling on recognizing AIGC, this analysis further demonstrates that recognizing AI content can influence consumer response, as proved by Morrow et al. (2022). It is likely that some participants in the high-demand group did not initially recognize the AIGC as AI-generated. Once labeled, these participants were able to identify the content's origin, leading to a decrease in perceived authenticity. While this effect was expected in H2, its significant emergence here suggests a logical connection: labeling helps clarify the origin, thereby affecting authenticity perceptions more prominently among those with higher regulatory concerns. This supports Huh et al. (2023), who emphasize the importance of transparency in enhancing credibility and authenticity. These findings underscore the importance of public opinion, as research by Cave et al. (2019) demonstrated that it can significantly influence the adoption and use of emerging technologies such as AI. While labeling did not consistently affect perceived authenticity for individual content pieces, its significant impact on those with high demanding attitudes highlights the critical role of transparency and public sentiment in shaping perceptions of AIGC.

Although the relatively high mean for both groups, individuals in the low demand group are likely to be more indifferent to AI, find it uninteresting, or are very enthusiastic about it and do not care about regulations. They were as engaged with AI-generated art when the origin is unclear as they are when it is clear. For these participants, labeling AIGC does not make a difference; they might support the rise of AI in art, be intrigued by the label, or simply not care about the label or content origin. This aligns with findings from Haggenmüller et al. (2021), which suggest that individuals with lower regulatory concerns are less affected by transparency measures and more focused on the content's quality and novelty. Furthermore, Lazányi (2019) highlights that engagement with AI technology varies widely, with some individuals showing high levels of enthusiasm and acceptance, regardless of regulatory issues. This supports the idea that attitudes toward AI can significantly influence how labeling impacts consumer responses.

While labeling did not have a significant main effect on engagement, the interaction between labeling and demanding attitude was marginally significant. Participants with higher demanding attitudes engaged more with unlabeled AI content. This trend was evident in the significant difference in engagement within the no label condition between low and high demanding attitude groups. For instance, the "No Label, High Demanding Attitude" group showed the highest mean engagement. This implies that those who have strict regulatory concerns may examine labeled content more closely, which would result in lower levels of engagement.

5.6 Exploratory Findings

To explore why effects were present for some artistic content types but not others, an additional analysis was conducted with self-reported liking of the content types. Notably, self-reported liking was a strong predictor of actual engagement for human-made photography, highlighting a clear relationship between these variables. However, for other content types, the relationships were not significant. This lack of significance may explain the lesser effects of engagement observed for cinematography. Specifically, cinematography showed no significant difference in engagement between human-made and

AI-generated content, nor between labeled and unlabeled AI content. The only significant difference was observed for HM_Cinema_Scifi, where engagement increased significantly when AI content was labeled. These findings suggest that the cinematography presented in the survey did not meet the expectations of the artistic content lovers, resulting in lower engagement than self-reported liking would predict. This effect might also apply to other content pieces. Future research could benefit from more detailed preliminary studies or by focusing entirely on one content type. This approach would allow for a more comprehensive examination of the effects and consumer engagement with AI-generated art.

5.7 Limitations and Future Research

In comparison to previous research, these findings reinforce the notion that human-made content is often perceived as more genuine and engaging than AIGC. However, the question remains whether AI can ever truly match the level of authenticity in human art, especially as AI tools continue to advance and improve in mimicking human creativity. Research suggests that AI may never fully achieve the level of authenticity and creativity inherent in human artistry (Gross, 2023), as the use of AI in art challenges the principles of uniqueness and the intrinsic purpose of artistic expression (Chatterjee, 2022). Despite this, the field remains captivating, as AI might have the potential to redefine our perceptions of beauty, creativity, and the essence of art itself (Chatterjee, 2022). This evolving dynamic ensures that research into AI-generated art will remain a compelling area of study in the years to come, with a crucial focus on further exploring the role of authenticity in AIGC engagement.

One limitation of this study is the placement of the survey question regarding the recognition of AIGC at the end, asking participants how many content pieces they recognized as AI-generated. While this approach allowed for assessing overall recognition and prevented bias in reporting engagement, it did not verify if participants accurately identified the specific pieces of AIGC. Participants might have mistakenly identified human-made content as AI-generated. As highlighted by Partadiredja et al. (2020), distinguishing between AI-generated and human-made content is increasingly challenging, underscoring the complexity of accurately recognizing content origins. This limitation underscores the need for more

detailed methodologies in future research to precisely measure recognition accuracy. Despite this limitation, the overall findings remain robust, highlighting the significant impact of labeling on the recognition of AIGC.

Additionally, this study used AIGC created entirely by AI. However, there is often a human idea behind this process, leaving a trace of human creativity, which aligns with research suggesting that AI should not be viewed as a replacement for human creativity (Hutson & Lang, 2023; Gross, 2023). Some artists use AI only partially in their creative process. This raises the need for research to determine whether this underlying human creativity affects perceived authenticity and how AIGC should be labeled accordingly. Future research could explore whether perceived authenticity and engagement differ between artists who partially use AI and those who rely solely on AI. Developing different labels to indicate the level of AI involvement in art creation might bring varying effects on perceived authenticity and engagement, providing more nuanced insights into origin disclosure practices.

As research in the field of AIGC is still in its early stages, consumer engagement is likely to evolve significantly in the near future. Currently, the impact of AI is relatively new, and many people are impressed by these technological advancements, as showcased by the findings of Funk et al. (2023) that 70% of U.S. adults view artificial intelligence as an advance for visual arts. This may explain why labeling AIGC does not consistently reduce engagement. Without prior recognition of AIGC, labels might actually increase engagement due to amazement at the impressive capabilities of AI. The question that arises is whether AI can continue to captivate audiences or if people, particularly the younger generation, will become bored of the flood of less authentic content.

This research provides valuable insights into AIGC and consumer engagement in the artistic sector, highlighting the dynamic nature of this field and its potential for ongoing interest and study in the future. The high demand for AIGC regulation among Generation Z underscores the importance of transparency and ethical considerations in AI use. As the attitude toward AIGC regulation significantly affects the impact of labeling, future research should explore how these attitudes might evolve over time

and across different generations and age groups, providing a comprehensive view of the entire audience for AIGC.

5.8 Conclusion

In conclusion, this study addresses the research question: "How do content origin (human-made vs. AI-generated) and AIGC labeling affect the perceived authenticity and engagement of artistic media among Generation Z, and to what extent is this effect moderated by attitudes toward AIGC regulation?" The findings reveal that human-made content is perceived as more authentic and engaging than AIGC, with a relation found between perceived authenticity and engagement.

Labeling AIGC did not fully achieve significant results across all individual content pieces, but it demonstrated a notable potential in affecting perceived authenticity. This suggests that while the current findings are mixed, labeling remains a promising area for future research to explore its full impact. For attitudes towards regulation, the results show a significant effect on perceived authenticity, particularly among those with high regulatory demands, indicating these individuals are more sensitive to authenticity cues provided by labeling. However, the effect on engagement was not supported, pointing to the need for more nuanced research in this area.

Future research should examine these dynamics at different levels, including varying types of artistic media and broader demographic groups, to deepen our understanding of how AIGC is perceived and engaged with. As AI technology continues to advance, it is crucial to explore the evolving dynamics of authenticity, engagement, and regulatory attitudes to ensure both current and future generations can navigate and appreciate the intersection of technology and creativity.

References

Adjiovski, B. (2023, August 10). *Machine Movie The Frost and the role of AI in the film industry*.

TechAcute.

https://techacute.com/machine-movie-the-frost-and-the-role-of-ai-in-the-film-industry/

Amazeen, M. A., & Wojdynski, B. W. (2020). The effects of disclosure format on native advertising

recognition and audience perceptions of legacy and online news publishers. *Journalism*, *21*(12),

1965–1984. https://doi.org/10.1177/1464884918754829

Austin, E. W., & Dong, Q. (1994). Source v. Content effects on judgments of news believability.

Journalism Quarterly, *71*(4), 973–983. https://doi.org/10.1177/107769909407100420

Berry, C., Burton, S., & Howlett, E. (2018). The effects of voluntary versus mandatory menu calorie

labeling on Consumers' Retailer-Related Responses. *Journal of Retailing*, *94*(1), 73–88.

https://doi.org/10.1016/j.jretai.2017.09.004

Bickert, M. (2024, April 8). Our approach to labeling AI-Generated content and manipulated media.

Meta.

https://about.fb.com/news/2024/04/metas-approach-to-labeling-ai-generated-content-and-manipul

ated-media/

Blazhev, B. (2023). Artificial intelligence and graphic design. *Kulturno-istoričesko Nasledstvo :*

Opazvane, Predstavâne, Digitalizaciâ, *9*(1), 112–130. https://doi.org/10.55630/kinj.2023.090109

Botti, S. (2000). What role for marketing in the Arts? An analysis of arts consumption and artistic value.

International Journal of Arts Management, *2*(3). https://www.jstor.org/stable/41064697

Bourgeon, D. (2000). Evaluating consumer behaviour in the field of arts and culture marketing.

International Journal of Arts Management, *3*(1), 4–18.

https://www.jstor.org/stable/pdfplus/10.2307/41064708.pdf

Brauner, P., Hick, A., Philipsen, R., & Ziefle, M. (2023). What does the public think about artificial intelligence?—A criticality map to understand bias in the public perception of AI. *Frontiers in Computer Science*, *5*. https://doi.org/10.3389/fcomp.2023.1113903

Brügger, A., & Höchli, B. (2019). The Role of Attitude Strength in Behavioral Spillover: Attitude Matters—But Not Necessarily as a Moderator. *Frontiers in Psychology*, *10*. https://doi.org/10.3389/fpsyg.2019.01018

Brüns, J. D., & Meißner, M. (2024). Do you create your content yourself? Using generative artificial intelligence for social media content creation diminishes perceived brand authenticity. *Journal of Retailing and Consumer Services*, *79*, 103790. https://doi.org/10.1016/j.jretconser.2024.103790

Bushman, B. J. (1998). Effects of warning and information labels on consumption of full-fat, reduced-fat, and no-fat products. *Journal of Applied Psychology*, *83*(1), 97–101. https://doi.org/10.1037/0021-9010.83.1.97

Cao, Y., Li, S., Liu, Y., Zhang, Y., Dai, Y., Yu, P. S., & Sun, L. (2023). A comprehensive survey of AI-generated content (AIGC): A history of generative AI from GAN to ChatGPT. *arXiv (Cornell University)*. https://doi.org/10.48550/arxiv.2303.04226

Cave, S., Coughlan, K., & Dihal, K. (2019). "Scary Robots": Examining public responses to AI. In *AIES '19: AAAI/ACM Conference on AI, Ethics, and Society*. https://doi.org/10.1145/3306618.3314232

Chan, P. (2016). The potency of art. *Social Research*, *83*(1), 149–152. https://doi.org/10.1353/sor.2016.0018

Chandonnet, H. (2024, June 12). *Gen Z women are less likely to use AI than Gen Z men. Here’s why*. Fast Company. https://www.fastcompany.com/91138639/gen-z-women-are-less-likely-to-use-ai-than-gen-z-men-heres-why

Chatterjee, A. (2022). Art in an age of artificial intelligence. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.1024449

Chu, H., Kim, J., Kim, S., Lim, H., Lee, H., Jin, S., Lee, J., Kim, T., & Ko, S. (2022). An empirical study on how people perceive AI-generated music. *Proceedings of the 31st ACM International Conference on Information &Amp; Knowledge Management*. https://doi.org/10.1145/3511808.3557235

Civit, M., Civit-Masot, J., Cuadrado, F., & Cuaresma, M. J. E. (2022). A systematic review of artificial intelligence-based music generation: Scope, applications, and future trends. *Expert Systems With Applications*, *209*, 118190. https://doi.org/10.1016/j.eswa.2022.118190

Daum, J. (2023, May 11). *Douyin Rules for use and labeling of AI-Generated content*. China Law Translate. https://www.chinalawtranslate.com/en/douyin-rules-for-use-and-labeling-of-ai-generated-content/

De Jans, S., Cauberghe, V., & Hudders, L. (2018). How an advertising disclosure alerts young adolescents to sponsored vlogs: The moderating role of a Peer-Based Advertising Literacy Intervention through an Informational vlog. *Journal of Advertising*, *47*(4), 309–325. https://doi.org/10.1080/00913367.2018.1539363

Du, D., Zhang, Y., & Ge, J. (2023). Effect of AI generated content advertising on consumer engagement. In *Lecture notes in computer science* (pp. 121–129). https://doi.org/10.1007/978-3-031-36049-7_9

Eschenbach, V., & Warren, J. R. (2021). Transparency and the black box problem: Why we do not trust AI. *Philosophy & Technology (Print)*, *34*(4), 1607–1622. https://doi.org/10.1007/s13347-021-00477-0

Estes, Z., Brotto, L., & Busacca, B. G. (2018). The value of art in marketing: An emotion-based model of how artworks in ads improve product evaluations. *Journal of Business Research*, *85*, 396–405. https://doi.org/10.1016/j.jbusres.2017.10.017

EU AI Act: first regulation on artificial intelligence | Topics | European Parliament. (2023, August 6). Topics | European Parliament.

https://www.europarl.europa.eu/topics/en/article/20230601STO93804/eu-ai-act-first-regulation-on-artificial-intelligence

Feuerriegel, S., Hartmann, J., Janiesch, C., & Zschech, P. (2023). Generative AI. *Business & Information Systems Engineering*, *66*(1), 111–126. https://doi.org/10.1007/s12599-023-00834-7

Fingerhut, J., & Prinz, J. J. (2018). Wonder, appreciation, and the value of art. In *Progress in brain research* (pp. 107–128). https://doi.org/10.1016/bs.pbr.2018.03.004

Funk, C., Tyson, A., & Kennedy, B. (2023, February 22). How Americans view emerging uses of artificial intelligence, including programs to generate text or art. *Pew Research Center*. https://www.pewresearch.org/short-reads/2023/02/22/how-americans-view-emerging-uses-of-artificial-intelligence-including-programs-to-generate-text-or-art/

Gayakwad, M., & Patil, S. H. (2021). Assessment of source, medium, and intercommunication for assessing the credibility of content. *2021 International Conference on Smart Generation Computing, Communication and Networking (SMART GENCON)*. https://doi.org/10.1109/smartgencon51891.2021.9645746

Ghaisani, A. P., Munajat, Q., & Handayani, P. W. (2017). Information credibility factors on information sharing activites in social media. In *2017 Second International Conference on Informatics and Computing (ICIC)*. https://doi.org/10.1109/iac.2017.8280655

Goulding, C., & Derbaix, M. (2019). Consuming material authenticity in the age of digital reproduction. *European Journal of Marketing*, *53*(3), 545–564. https://doi.org/10.1108/ejm-10-2017-0717

Gross, E. C. (2023). The creative paradox of AI: enabler or disruptor of human imagination? *Bulletin of the "Transilvania" University of Braşov. Series VII, Social Sciences and Law*, 69–74. https://doi.org/10.31926/but.ssl.2023.16.65.1.7

Haggenmüller, S., Krieghoff-Henning, E., Jutzi, T., Trapp, N., Kiehl, L., Utikal, J., Fabian, S., & Brinker, T. J. (2021). Digital Natives' preferences on Mobile Artificial intelligence apps for skin cancer Diagnostics: survey study. *JMIR Mhealth and Uhealth*, *9*(8), e22909. https://doi.org/10.2196/22909

Hereniko, V. (2019). Authenticity in Cinema: Notes from the Pacific Islands. *Journal De La Société Des Océanistes/Journal De La SociéTé Des OcéAnistes*, *1*, 65–72. https://doi.org/10.4000/jso.10633

Heynen, H. (2006). Questioning authenticity. *National Identities*, *8*(3), 287–300. https://doi.org/10.1080/14608940600842607

Huh, J., Nelson, M. R., & Russell, C. A. (2023). ChatGPT, AI Advertising, and Advertising Research and Education. *Journal of Advertising*, *52*(4), 477–482. https://doi.org/10.1080/00913367.2023.2227013

Hutson, J., & Lang, M. (2023). Content creation or interpolation: AI generative digital art in the classroom. *Metaverse*, *4*(1), 13. https://doi.org/10.54517/m.v4i1.2158

Jenkins, E. L., Ilicic, J., Barklamb, A. M., & McCaffrey, T. A. (2020). Assessing the Credibility and Authenticity of Social Media Content for Applications in Health Communication: Scoping Review. *JMIR. Journal of Medical Internet Research/Journal of Medical Internet Research*, *22*(7), e17296. https://doi.org/10.2196/17296

Kaplan, A., & Haenlein, M. (2019). Siri, Siri, in my hand: Who's the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence. *Business Horizons*, *62*(1), 15–25. https://doi.org/10.1016/j.bushor.2018.08.004

Koempel, F. (2020). From the gut? Questions on Artificial Intelligence and music. *Queen Mary Journal of Intellectual Property*, *10*(4), 503–513. https://doi.org/10.4337/qmjip.2020.04.05

Köles, B., Audrezet, A., Moulard, J. G., Ameen, N., & McKenna, B. (2024). The authentic virtual influencer: Authenticity manifestations in the metaverse. *Journal of Business Research*, *170*, 114325. https://doi.org/10.1016/j.jbusres.2023.114325

Larsson, S., & Heintz, F. (2020). Transparency in artificial intelligence. *Internet Policy Review*, *9*(2). https://doi.org/10.14763/2020.2.1469

Lazányi, K. (2019). Generation Z and Y – are they different, when it comes to trust in robots? In *2019 IEEE 23rd International Conference on Intelligent Engineering Systems (INES)*. https://doi.org/10.1109/ines46365.2019.9109508

Li, Y. (2022). Research on the application of artificial intelligence in the film industry. *SHS Web of Conferences*, *144*, 03002. https://doi.org/10.1051/shsconf/202214403002

Lim, R. E., & Lee, S. Y. (2023). "You are a virtual influencer!": Understanding the impact of origin disclosure and emotional narratives on parasocial relationships and virtual influencer credibility. *Computers in Human Behavior*, *148*, 107897. https://doi.org/10.1016/j.chb.2023.107897

Maares, P., Banjac, S., & Hanusch, F. (2021). The labour of visual authenticity on social media: Exploring producers' and audiences' perceptions on Instagram. *Poetics*, *84*, 101502. https://doi.org/10.1016/j.poetic.2020.101502

Morrow, G., Swire‑Thompson, B., Polny, J. M., Kopec, M., & Wihbey, J. (2022). The emerging science of content labeling: Contextualizing social media content moderation. *Journal of the Association for Information Science and Technology (Print)*, *73*(10), 1365–1386. https://doi.org/10.1002/asi.24637

Mutlu, N. G. A. (2020). The future of film-making: Data-driven movie-making techniques. *Global Journal of Arts Education*, *10*(2), 167–174. https://doi.org/10.18844/gjae.v10i2.4735

Nedelcu, D., & Blaban, D. C. (2021). The Role of Source Credibility and Message Credibility in Fake News Engagement. Perspectives from an Experimental Study. *Journal of Media Research*, *14*(3 (41)), 42–62. https://doi.org/10.24193/jmr.41.3

Nghiêm-Phú, B. (2022). Factors affecting customer intentions toward AI-Made music. In *Advances in business strategy and competitive advantage book series* (pp. 195–220). https://doi.org/10.4018/978-1-7998-8524-5.ch011

Partadiredja, R. A., Serrano, C. E., & Ljubenkov, D. (2020). AI or human: The Socio-ethical Implications of AI-Generated Media Content. In *2020 13th CMI Conference on Cybersecurity and Privacy (CMI) - Digital Transformation - Potentials and Challenges(51275)*. https://doi.org/10.1109/cmi51275.2020.9322673

Pouliot, L., & Cowen, P. S. (2007). Does Perceived Realism Really Matter in Media Effects? *Media Psychology*, *9*(2), 241–259. https://doi.org/10.1080/15213260701285819

Priporas, C., Stylos, N., & Fotiadis, A. (2017). Generation Z consumers' expectations of interactions in smart retailing: A future agenda. *Computers in Human Behavior*, *77*, 374–381. https://doi.org/10.1016/j.chb.2017.01.058

Ramu, D., Jain, R., & Jain, A. (2023, December 31). *Generation Z's ability to discriminate between AI-generated and Human-Authored text on Discord*. arXiv.org. https://arxiv.org/abs/2401.04120

Rubinstein, Y. (2020). Uneasy listening. *Resonance*, *1*(1), 77–93. https://doi.org/10.1525/res.2020.1.1.77

Sato, M., & Patel, N. (2023, November 14). YouTube is going to start cracking down on AI clones of musicians. *The Verge*. https://www.theverge.com/2023/11/14/23959658/google-youtube-generative-ai-labels-music-copyright

Schul, A., & Knapp, J. R. (1984). On Attitude Change: Issue-Involvement and Demand Characteristics. *Psychological Reports*, *55*(2), 547–553. https://doi.org/10.2466/pr0.1984.55.2.547

Schultz, P. W., & Oskamp, S. (1996). Effort as a Moderator of the Attitude-Behavior Relationship: General Environmental Concern and Recycling. *Social Psychology Quarterly*, *59*(4), 375. https://doi.org/10.2307/2787078

Shahbaznezhad, H., Dolan, R., & Rashidirad, M. (2021). The role of social media content format and platform in users' engagement behavior. *Journal of Interactive Marketing*, *53*, 47–65. https://doi.org/10.1016/j.intmar.2020.05.001

Short, J., Williams, E., & Christie, B. (1976). *The social psychology of telecommunications*. https://ci.nii.ac.jp/ncid/BA22930972

Singh, H., Kaur, K., & Singh, P. P. (2023). Artificial Intelligence as a facilitator for Film Production Process. In *2023 International Conference on Artificial Intelligence and Smart Communication (AISC)*. https://doi.org/10.1109/aisc56616.2023.10085082

Sivakumaran, A. (2023). *Investigating consumer perception and speculative AI labels for creative AI usage in media* [Master's Programme, Media Management, School of Electrical Engineering and Computer Science]. https://kth.diva-portal.org/smash/get/diva2:1833746/FULLTEXT01.pdf

Sterling, B. (1998, July 20). *Science fiction | Definition, Books, Movies, Authors, Examples, & Facts*. Encyclopedia Britannica. https://www.britannica.com/art/science-fiction

Sturm, B. L., Iglesias, M., Ben-Tal, O., Miron, M., & Gómez, E. (2019). Artificial intelligence and Music: Open questions of copyright law and engineering Praxis. *Arts*, *8*(3), 115. https://doi.org/10.3390/arts8030115

Thunström, L. (2019). Welfare effects of nudges: The emotional tax of calorie menu labeling. *Judgment and Decision Making*, *14*(1), 11–25. https://doi.org/10.1017/s1930297500002874

TikTok. (n.d.). *About AI-generated content | TikTok Help Center*. https://support.tiktok.com/en/using-tiktok/creating-videos/ai-generated-content

Tirocchi, S. (2024). Generation Z, values, and media: from influencers to BeReal, between visibility and authenticity. *Frontiers in Sociology*, *8*. https://doi.org/10.3389/fsoc.2023.1304093

Valsesia, F., Nunes, J. C., & Ordanini, A. (2015). What wins awards is not always what I buy: How creative control affects authenticity and thus recognition (But not liking). ˜*the œJournal of Consumer Research/Journal of Consumer Research*, *42*(6), 897–914. https://doi.org/10.1093/jcr/ucv093

Van Reijmersdal, E. A., Fransen, M. L., Van Noort, G., Opree, S. J., Vandeberg, L., Reusch, S., Van Lieshout, F., & Boerman, S. C. (2016). Effects of disclosing sponsored content in blogs. *American Behavioral Scientist*, *60*(12), 1458–1474. https://doi.org/10.1177/0002764216660141

Vanka, S. S., Safi, M., Rolland, J., & Fazekas, G. (2023). Adoption of AI technology in the music mixing workflow: an investigation. *arXiv (Cornell University)*. https://doi.org/10.48550/arxiv.2304.03407

Winner, E. (2018). Identical! In *Oxford University Press eBooks*. https://doi.org/10.1093/oso/9780190863357.003.0010

Yang, Y., Sedikides, C., Wang, Y., & Cai, H. (2024). Nature nurtures authenticity: Mechanisms and consequences. *Journal of Personality and Social Psychology*, *126*(1), 79–104. https://doi.org/10.1037/pspi0000432

Zhang, Y., & Gosline, R. (2023). Human favoritism, not AI aversion: People's perceptions (and bias) toward generative AI, human experts, and human–GAI collaboration in persuasive content generation. *Judgment and Decision Making*, *18*. https://doi.org/10.1017/jdm.2023.37

Appendix A

AI Statement

During the preparation of this work the author used different AI tools in order to find sources, create stimuli or support in the writing process. After using this tool/service, the author reviewed and edited the content as needed and takes full responsibility for the content of the work.

The AI tools used were: ChatGPT 4.0 (from OpenAI), Elicit.com, and Udio.com.

Informed Consent

Dear participant, You are being invited to participate in a research study about consumer experience of artistic media content. This study is being done as part of a bachelor's thesis in Communication Science at the University of Twente in the Netherlands. Participants in this research will have the opportunity to receive rewards: upon completion of data collection, two 10-euro bol.com gift cards will be distributed.

The purpose of this research study is to get a better understanding of generation z's perspective on artistic media content. The survey consists of two components: a gamified media consumption part and a questionnaire about your opinion on and understanding of the media. This survey will take approximately around 10 to 15 minutes. The data will be used for research and educational purposes only and will be deleted at 01-08-2024.

Participation is anonymous, this means that you don't have to disclose identity information. Your answers are only visible for the researcher and the supervisor. Your participation in this study is entirely voluntary and you can withdraw at any time. I believe there are no known risks associated with this research study; however, as with any online related activity the risk of a breach is always possible. To the best of my ability, your answers in this study will remain confidential. Risks will be minimalized by deleting any information used to track back the participant. That information will be replaced with randomized codes that will help the researchers with grouping particular responses. All the data will be

stored securely in the UT cloud.

PS: Users of the research platform SurveyCircle.com will receive SurveyCircle points for their participation.

For any questions you can always reach out to the researcher: Mik Bosch - m.j.bosch-1@student.utwente.nl Or the supervisor: Mirjam Galetzka - m.galetzka@utwente.nl

—----------------------------------

After reading the information above, do you understand and agree to participate in this study?

0 Yes

0 No

Debriefing

"To minimize potential bias, the full details of the study were not disclosed to participants in advance. This research focuses on Generation Z's perceptions of human-made versus AI-generated artistic media content. Participants were randomly assigned to either a group that received AI labels indicating AI-generated content, or a group that did not. The study compares perceptions of authenticity and engagement between these groups, and also analyzes attitudes toward regulation among all participants."

Appendix B

Measurement Instruments

Instrument 1

Measuring 'perceived authenticity' and control questions for 'engagement'

Please rate your agreement with the following statements about the piece of content, where 1 indicates strong disagreement and 5 indicates strong agreement:

Perceived Authenticity Scale

1	"This piece of content feels authentic."
2	"This artwork reflects true inspiration rather than commercial purposes."
3	"The work reflects originality and showcases the artist's innovative approach to the art form."
4	"This artwork captures my interest."

Instrument 2

Measuring 'Attitude towards AIGC regulation'

Please rate your agreement with the following statements about the piece of content, where 1 indicates strong disagreement and 5 indicates strong agreement:

Attitude toward AIGC regulation

1	"AI-generated content is beneficial for the arts industry even if it competes with human creators."
2	"AI-generated content should always be labeled clearly as such."
3	"Transparency in AI-generated content is essential for maintaining artistic integrity."
4	"I am worried that AI will replace human creativity in the arts."
5	"Origin transparency is more critical for AI-generated artistic media content than for commercial, informative, or educational content."
6	"AI-generated artistic media content should not be allowed, to protect human creativity."

Instrument 3

Measuring 'Recognition of AIGC'

How many of the content pieces presented to you did you recognize as AI-generated?

- ☐ 0
- ☐ 1-3
- ☐ 4-6
- ☐ 7+