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Assignment Report:

Generative AI in Visual Content Production and Audience Sentiment Analysis

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Summary research paper's:

Paper1: Generative Artificial Intelligence and Visual Communication: A Systematic Review of Transformations in Image Production, Audience Reception, and Meaning-Making in Digital Media

This paper reviews how generative AI tools like DALL-E and Midjourney transformed visual communication between 2018 and 2023. The authors analyzed 63 peer-reviewed articles following the PRISMA protocol, focusing on three key dimensions: how visual message production changed and redefined the concept of the "sender"; how audiences perceive AI-generated images and evaluate their credibility; and how media visual culture shifted regarding authenticity, reality, and representation. What stood out to me in the findings is that generative AI democratized image production and blurred the line between professional and amateur creators, but at the same time created an authenticity crisis by making it harder for audiences to distinguish real from synthetic images. The paper also highlights that these tools reinforce cultural stereotypes due to biased training data. However, I think the study overlooked non-Western audiences, relied too heavily on quantitative methods at the expense of qualitative insights, and lacked longitudinal research on long-term effects.

Paper2: Bridging Efficiency and Emotion: Evaluating User Engagement with AI-Generated and Human-Generated TikTok Videos Through Media Richness and Uses and Gratifications Theories

This study compared AI-generated versus human-generated TikTok videos and measured engagement (likes, comments, shares) using Media Richness Theory and Uses and Gratifications Theory. The dataset included 400 TikTok videos and over 255,000 comments, analyzed through regression analysis, sentiment analysis, and topic modeling. The results were quite clear from my perspective: AI-generated content was seen as effective and informative but lacked emotional depth, resulting in significantly lower engagement. In contrast, human-generated content created stronger emotional connections and a sense of authenticity, driving much higher engagement. I think this finding is very relevant for content creators. However, the study was limited to TikTok only and did not explore hybrid strategies that combine AI efficiency with human emotional appeal.

Paper3: : How do young users perceive and respond to AI-generated short-form videos? An exploration of Generation Z's perceptions, emotional responses, and trust in AI-created video on social media platforms

This study explored how Generation Z perceives AI-generated short-form videos on platforms like TikTok and Instagram, drawing on the Stimulus-Organism-Response model and Uncanny Valley Theory. The researchers introduced a new concept called the "Perceptual Response Zone" to explain how emotional realism shapes user trust. Through in-depth interviews, they found that Gen Z values emotional authenticity and narrative coherence more than novelty or entertainment. Voice design and undisclosed authorship emerged as major sources of discomfort. Participants were comfortable with AI-generated content in entertainment and creative contexts, but were very skeptical about its use in news or education. In my opinion, these findings show that young audiences are more aware than we might think, but the study relied solely on qualitative interviews and did not measure actual behavioral engagement, which makes it harder to generalize.

Paper4: Recoding Reality: A Case Study of YouTube Reactions to Generative AI Videos

This study analyzed 11,418 YouTube comments to build a holistic understanding of how users experience AI-generated videos. The researchers used a mixed-methods approach combining LDA topic modeling with qualitative interpretation. I was particularly impressed by their three-tiered framework covering Socio-Technical Systems, AI Content and Aesthetics, and Societal and Ethical Implications. They identified three distinct experiential dimensions: the "uncanny valley" effect on an emotional level, memetic participation on a behavioral level, and epistemic anxiety on a cognitive level. I think this framework provides a useful map of the public discourse around AI video. However, the study was limited to YouTube comments and did not analyze the demographics of commenters, which weakens the generalizability of the findings.

Paper5: Generative AI for Film Creation: A Survey of Recent Advances

This survey examined how generative AI is being adopted in filmmaking, analyzing workflows from recent AI-driven films to understand how GenAI contributes to character creation, aesthetic styling, and narration. The paper explores strategies for maintaining character consistency, stylistic coherence, and motion continuity, while also highlighting emerging trends like 3D generation and the integration of real footage with AI-generated elements. From a technical perspective, the study shows how AI enables filmmakers to produce shots that would be impossible to capture traditionally and create dreamlike visual effects. However, I feel the study focused too much on technical aspects and largely ignored audience reception and ethical considerations. It also did not address the economic and labor implications for creative professionals, which I think is a significant oversight.

Paper6: A systematic review for 2019–2025 on deep learning models in the film production industry

This systematic review covered the period from 2019 to 2025 and analyzed deep learning applications in the film industry across four pillars: Scriptwriting, Video Generation, Video Editing, and Music Generation. The study introduced a novel evaluation framework called IMPSF to assess research papers across four dimensions. Applying this to 129 publications, the review found that AI primarily serves as a powerful augmentative tool rather than a replacement for human filmmakers, with major advancements driven by diffusion models, LLMs, and GANs. What caught my attention is how the paper provides a structured taxonomy and a research roadmap for the field. That said, the IMPSF weighting scheme might introduce some bias, and the review largely ignored ethical issues and audience reception, which I hope future research will address.

Critical Analysis:

Looking at these six papers as a whole, I think their strongest point is their interdisciplinary nature. They bring together computer science, media studies, communication, and film production, which I believe is essential for understanding a complex topic like generative AI. The methodological diversity is also impressive—ranging from systematic reviews and quantitative engagement analysis to qualitative interviews and mixed-methods designs—which gives us a more complete picture from multiple angles. In my view, the theoretical contributions stand out as well: Paper 2 refines Media Richness Theory, Paper 3 introduces the "Perceptual Response Zone," Paper 4 offers a three-tiered framework, and Paper 5 provides a clear roadmap for researchers and artists. On top of that, the topic is highly practical and relevant to content creators, filmmakers, and media professionals, which makes this research valuable beyond academi

However, I cannot ignore several clear limitations across this body of research. First, there is a noticeable Western bias; most of the samples and platforms come from the US, Europe, and East Asia. Paper 1 itself acknowledges the lack of attention to non-Western audiences, which limits how well the findings apply to our own cultural context. Second, I noticed a significant gap between technical studies (Papers 5 and 6) and audience-focused studies (Papers 1–4), with little integration connecting AI capabilities to audience responses. Third, relying on platform-specific data from TikTok and YouTube makes the results platform-dependent—they might look different if applied to cinema or television. Fourth, ethical issues and the impact of AI on creative labor are mostly overlooked except for brief mentions. Finally, the rapid pace of technological change means that findings from 2023 may already be outdated when compared to models available in 2025 and 2026, such as Sora and Veo 2.

Connections:

1. **Focus on Generative AI in Visual Media:** All six papers examine the role of generative AI in visual content creation—whether images, short-form videos, or full-length films—demonstrating that this is a consolidated area of academic inquiry.
2. **Audience Reception as a Central Theme:** Four papers (1, 2, 3, 4) directly investigate audience perceptions, emotional responses, and trust in AI-generated visual content, highlighting a shared concern for understanding how viewers engage with synthetic media.
3. **The Authenticity Challenge:** Multiple studies converge on the finding that perceived authenticity is a critical factor in audience engagement with AI-generated content. Paper 2 found that human-generated content drives stronger emotional connections due to authenticity; Paper 3 revealed that Gen Z prioritizes emotional authenticity over novelty; and Paper 1 identified threats to audiences' capacity to differentiate real from synthetic images.
4. **The Uncanny Valley Effect:** Both Paper 3 and Paper 4 reference the "uncanny valley" phenomenon—where AI-generated content that is nearly but not quite human-like triggers discomfort—as a key affective dimension of user experience.
5. **Platform-Specific Analysis:** Papers 2, 3, and 4 focus on specific social media platforms (TikTok, Instagram, YouTube), indicating that platform context significantly influences how audiences perceive and engage with AI-generated content.
6. **Technical and Artistic Perspectives:** Papers 5 and 6 emphasize technical advancements and filmmaking workflows, complementing the audience-focused studies by providing the technological context necessary to understand what AI can currently produce.

Conflicts between the findings:

1. **Efficiency vs. Emotional Connection:** Paper 2 argues that AI content is effective but emotionally cold, while Paper 5 highlights impressive artistic progress. This suggests a gap between what AI can technically do and how audiences feel about it.
2. **Generational Differences:** Paper 3 shows Gen Z is enthusiastic about AI in entertainment but skeptical about news applications, while external data suggests 65% of Gen Z trust AI tools overall, indicating that trust depends heavily on context.
3. **Detection Capabilities:** Paper 1 warns that audiences struggle to distinguish real from synthetic, yet industry reports show that 83% of consumers believe they have seen suspicious AI content. People may be more aware than they are accurate.
4. **Methodological Debate:** Paper 1 criticizes the dominance of quantitative methods, yet Paper 2 uses quantitative analysis heavily, and Paper 3 uses purely qualitative interviews. There is no consensus on the best approach.
5. **Disciplinary Divide:** Papers 5 and 6 are purely technical, while Papers 1–4 are purely media/communication-focused. This fragmentation prevents a holistic understanding and calls for more integration.
6. **Transparency and Labels:** Paper 1 discusses the changing role of the "sender," while other research suggests that labeling AI content can reduce belief in false information but may also have unintended side effects, meaning transparency is not always straightforward.

Synthesis Matrix for Literature Review:

Study	Authors	Year	Research Design	Key Findings/Results	Methodology	Limitations
Generative AI and Visual Communication: A Systematic Review	Ipek Fatma ERTAN Kubra SAHIN CEKEN	2023	Systematic Literature Review (PRISMA)	1) GenAI democratizes image production, eliminating the distinction between professional and non-professional creators. 2) Introduces a significant threat to audiences' capacity to differentiate between real and synthetic images (authenticity crisis). 3) Reproduces and reinforces existing cultural stereotypes based on historically biased training data. 4) Shifts the concept of "sender" in communication models.	Data Collection: Search in Web of Science, Scopus, Communication Abstracts (2018-2023). Initial results: 478 studies, filtered to 63 peer-reviewed articles. Preprocessing: PRISMA protocol for screening and eligibility. Model Development: Integrative four-dimensional communication model: Semiotic, Cognitive-Affective, Rhetorical-Discursive, Contextual-Technological. Assessment: Thematic synthesis and qualitative meta-analysis across dimensions.	1) Inadequate attention to non-Western audiences and Global South contexts. 2) Preponderance of quantitative methodology over qualitative approaches in the reviewed corpus. 3) Lack of longitudinal research on long-term effects of GenAI exposure. 4) Rapid technological evolution may outdate findings quickly.

**Bridging
Efficiency and
Emotion: User
Engagement with
AI vs Human
TikTok Videos**

Tran Van Cong

2025

Quantitative
Experimental
(Causal-
comparative)

1) AI-generated content is perceived as effective and informative but lacks emotional depth → significantly lower likes, comments, and shares.
2) Human-generated content drives stronger emotional connections and perceived authenticity → higher engagement across all metrics.
3) AI content resulted in less richness in comment vocabulary.
4) Refines Media Richness Theory (MRT) by demonstrating that perceived authenticity influences media richness alongside technical quality.

Data Collection: 400 TikTok videos (200 AI-generated, 200 human-generated) and 255,541 comments extracted via TikTok API.

Dataset Size: 255,541 comment records.

Preprocessing: Tokenization, stop-word removal, and text cleaning for NLP analysis.

Model

Development: Study 1: Regression analysis. Study 2: Sentiment analysis (VADER lexicon-based) + LDA topic modeling.

Theoretical

Frameworks: Media Richness Theory (MRT) and Uses & Gratifications Theory (UGT).

Assessment

Metrics: Engagement metrics (likes, comments, shares), sentiment polarity scores, and topic coherence scores.

1) Confined to a single platform (TikTok) → may not generalize to YouTube, Instagram, or traditional cinema.
2) Does not explore hybrid content strategies combining AI efficiency with human emotional appeal.
3) Cross-sectional design cannot capture evolving attitudes over time.
4) Limited demographic diversity in sample.

How Gen Z Perceives and Responds to AI-Generated Short-Form Videos	Hoai Lan Duong Thi Kim Oanh Vo	2025	Qualitative Exploratory (Phenomenological)	1) Gen Z prioritizes emotional authenticity and narrative coherence over novelty or entertainment value. 2) Voice design and undisclosed authorship are key sources of discomfort (Uncanny Valley effect). 3) Participants expressed strong preferences for AI-generated content in entertainment/creative contexts but were skeptical of its role in serious genres (news, education). 4) Introduces the "Perceptual Response Zone" concept to explain how emotional realism shapes user trust.	Data Collection: In-depth semi-structured interviews with Generation Z participants (age 18-25) recruited via social media platforms. Dataset Size: Sample size not explicitly specified in abstract, but qualitative saturation was achieved. Preprocessing: Audio-recorded interviews transcribed verbatim. Model Development: Thematic analysis following Braun & Clarke's 6-phase framework. Theoretical Lenses: Stimulus-Organism-Response (S-O-R) model + Uncanny Valley Theory. Assessment: Inter-coder reliability checks, member checking for trustworthiness.	1) Reliance on qualitative self-report data → may not be generalizable to broader populations. 2) Does not examine behavioral metrics (actual engagement patterns, click-through rates) to complement self-reported perceptions. 3) Potential social desirability bias in interview responses. 4) Limited geographic and cultural diversity.
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Recoding Reality: YouTube Reactions to Generative AI Videos	Levent Calli Busra Alma Calli	2025	Mixed Methods (Quantitative + Qualitative)	1) Developed three-tiered framework modeling user experience: (a) Socio-Technical Systems and Platforms, (b) AI-Generated Content and Aesthetics, (c) Societal and Ethical Implications. 2) Identified three distinct experiential dimensions: "uncanny valley" (Affective), "memetic participation" (Behavioral), and "epistemic anxiety" (Cognitive - anxiety about distinguishing real from synthetic). 3) The framework provides a holistic map of public discourse on AI-generated video.	Data Collection: YouTube comments extracted using YouTube Data API v3. Dataset Size: 11,418 comments from top-viewed AI-generated videos. Preprocessing: Tokenization, removal of non-English comments, filtering spam/hate speech. Model Development: Quantitative: LDA (Latent Dirichlet Allocation) topic modeling with coherence score optimization. Qualitative: Thematic interpretation of extracted topics. Theoretical Framework: ABC model of attitudes (Affective, Behavioral, Cognitive). Assessment Metrics: Topic coherence scores, inter-rater reliability for theme interpretation.	1) Analysis confined to YouTube comments → may not represent broader public opinion or other platforms. 2) No demographic analysis of commenters (age, gender, location). 3) Cross-sectional design cannot capture evolving attitudes over time as AI technology advances. 4) May not capture non-textual reactions (emojis, images).
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Generative AI for Film Creation: A Survey of Recent AdvancesStudy	Ruihan Zhang Borou Yu Jiajian Min	2025	Survey / Technical Literature Review	1) GenAI contributes to character creation, aesthetic styling, and narration in filmmaking. 2) Key strategies identified: character consistency, stylistic coherence, and motion continuity. 3) Emerging trends: 3D generation, integration of real footage with AI-generated elements, dreamlike diffusion-based morphing effects, abstract visuals. 4) Artists' feedback reveals challenges: consistency, controllability, fine-grained editing, and motion refinement. 5) GenAI enables new artistic expressions (hard-to-shoot footage, unworldly objects, morphing effects).	Data Collection: Analysis of workflows from recent AI-driven films (e.g., "The Frost," "The Crow"). Dataset Size: Not applicable (survey of film production techniques rather than empirical data). Preprocessing: Categorization based on production phase (pre-production, production, post-production). Model Development: Qualitative synthesis of technical papers, industry reports, and artist testimonials. Assessment: Comparison of generative models (Diffusion models, GANs, NeRF, Sora) based on reported performance metrics and artist usability feedback.	1) Technical focus with limited attention to audience reception, ethics, and social implications. 2) Rapidly evolving field → findings may become outdated quickly (e.g., new models released monthly). 3) Minimal discussion of economic and labor implications for film industry professionals (job displacement). 4) Focuses predominantly on English/Western cinema contexts.
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Systematic Review on Deep Learning Models in Film Production Industry (2019-2025)	Behnam Yousefieh Mehdi Ghatee Shervin Ghaffari	2026	Systematic Literature Review	1) AI serves primarily as a powerful augmentative tool (not replacement) for human filmmakers. 2) Substantial advancements driven by diffusion models, large language models (LLMs), and generative adversarial networks (GANs). 3) Structured taxonomy across four pillars: Scriptwriting, Video Generation, Video Editing, Music Generation. 4) Provides a research roadmap and foundational framework for future innovation at the intersection of computational creativity and cinematic artistry.	Data Collection: Search in Web of Science, Scopus, IEEE Xplore, ACM Digital Library (2019-2025). Dataset Size: 129 publications meeting inclusion criteria. Preprocessing: Filtering by relevance to film production, excluding non-English and non-peer-reviewed sources. Model Development: Novel IMPSF framework (Intelligent Multi-Dimensional Paper Scoring Framework) using multi-agent system across 4 dimensions: (1) Technical Innovation, (2) Empirical Rigor, (3) Cinematic Applicability (4) Methodological Soundness. Assessment: Weighted scoring of publications against IMPSF dimensions; inter-rater agreement for classification.	1) IMPSF framework's weighting scheme may introduce bias toward certain types of research (e.g., over-weighting Technical Innovation). 2) Limited attention to ethical considerations, audience reception, and cultural impact. 3) Rapid pace of technological change requires continuous updating of the taxonomy. 4) Predominantly covers English-language publications only.
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