

AI-Generated Visual Design and User Behaviour on Social Media: Practitioner and Institutional Perspectives from Bahrain

Mariam Juma¹, Hatem Alsridi², Mohamed Shareeda³, Khadija Mohamed², Yousif Jallaf³

¹Dep. of Communication & Multimedia, University College of Bahrain, Bahrain

²Dep. of Mass Communication, University of Bahrain, Bahrain

³Dep. of Communication & Media Technologies, Gulf University, Bahrain

Correspondence: Hatem Alsridi, Dep. of Mass Communication, University of Bahrain, Bahrain, P.O. Box: 32038, Bahrain.

Received: August 3, 2026

Accepted: September 9, 2026

Online Published: September 10, 2026

doi:10.11114/smc.v14i4.9149

URL: <https://doi.org/10.11114/smc.v14i4.9149>

Abstract

Generative artificial intelligence (AI) is now embedded in the production of social media visuals. However, research has concentrated on production processes rather than audience outcomes, and empirical work in the Arab context remains scarce. This study examines how AI-generated visual design is adopted by creative professionals, deployed by institutions, and understood by those practitioners to affect user behaviour. Nine semi-structured interviews were conducted in Bahrain with three purposively sampled groups: content creators, institutional representatives, and specialists. Audience response was therefore accessed through practitioner accounts rather than through direct user data. Interviews were analysed thematically in MAXQDA against a ten-theme framework, yielding 223 coded paragraphs. Three key findings emerge. Adoption is task-contingent rather than scalar, ranging from no reliance on purely graphic work to 80% reliance on institutional video, with time-saving the dominant motivation while claims about creativity are consistently hedged. Verification of AI output is not a single ethical competence but a family of domain-specific capacities derived from each institution's own accountability regime. Practitioners across sectors and languages independently reported that content depicting people outperforms AI-generated alternatives, suggesting that established attention and identification mechanisms constrain substitution. Claims concerning users are practitioner-reported and require corroboration through direct audience research.

Keywords: AI-generated visual design, social media communication, user behaviour, institutional communication, Bahrain

1. Introduction

The rapid development of digital technologies has significantly impacted communication dynamics across creativity and institutions alike, with a growing emphasis on integrating artificial intelligence into content creation processes (Doshi & Hauser, 2024). The development of generative AI technologies, such as text-to-image models, has enhanced the ability to produce high-quality visual content more quickly and efficiently. As a result, AI-generated visual design has become a key factor in the dynamics of social media communication. On the other hand, social media communication has become a visually oriented environment, with a focus on images and visual compositions to capture users' attention and increase engagement with content (Muhtar et al., 2024). The visual elements of the content significantly affect engagement and the ability to communicate effectively with users. As a result, the inclusion of visually enhanced content has become a key factor in the dynamics of social media communication (Kusuma et al., 2024).

The inclusion of AI technologies has increased the capacity to produce a variety of content and to communicate effectively with users (Zachurzok-Srebrny, 2024). As a result, AI-generated visual design has become a key factor in social media communication dynamics and content production. Nevertheless, there has been little research on the role of AI-generated visual design in social media users' behaviour (Møller et al., 2026). Past studies on the subject focused on technological aspects, creative processes, and general guidelines for engaging with the media. However, there has been little research on the perception of AI-generated visual design by social media users, whether they can identify such visual design as distinct from human-generated visual design, and how this impacts user interaction behaviours such as liking, commenting, and sharing.

This gap in research is highly relevant to real-world experiences, as there are numerous instances of AI-generated visual design being used in strategic communication by content creators and institutions. Experiences in this regard indicate that there are various implications for applying visual design generated by AI in strategic communication processes, in that there is a concern about the perception of the audience regarding this visual design in relation to its sincerity and truth, and implications for user behaviours in social media communication in relation to visual design generated by humans and humans in general. However, there is little research on this topic that comprehensively considers the integrated aspects of content creation and strategic communication processes, as well as user behaviours.

This study explores the use of AI-generated visual design in social media communication and how it is understood to shape user behaviours. It examines the use of visual design in social media communication by content creators and institutions, and its implications for user behaviours, as these are reported by the professionals who produce and publish the content, integrating theoretical aspects with empirical evidence from multiple viewpoints. The study seeks to address the following research questions:

RQ1: How are AI-generated visuals currently being adopted and integrated into social media content production workflows by agencies and creative professionals?

RQ2: How do institutions utilise AI-generated visuals in their social media communication, and how do they observe audiences interacting with this content?

RQ3: What are the implications of using AI-generated visual content for visual communication practices and user experience on social media platforms?

2. Literature Review

2.1 AI in Creative Visual Production

Recent work shows generative tools reshaping both design workflows and understandings of creativity. Platform-scale data indicate that adoption of text-to-image models such as Midjourney, Stable Diffusion and DALL·E raises artists' output by around 25–50% and improves peer-evaluated value while reducing average visual and content novelty, with human creativity shifting toward ideation and filtering rather than manual execution (Zhou & Lee, 2024). In applied practice, diffusion-based aesthetic models generate multiple stylistically coherent design proposals from text prompts, offloading routine drawing and layout tasks (Chen, J., et al., 2024).

In graphic design, Mirzaei (2025) shows that AI systems increasingly handle repetitive operations, resizing, colour matching, layout adjustment and multi-version generation, freeing designers for ideation and higher-level aesthetic decisions while acting as “ideational partners”. However, practitioners voice concerns about authorship, originality and over-reliance. In marketing, Hartmann et al. (2025) show that AI-generated campaign images can equal or surpass human-made visuals in perceived quality, realism, creativity and click-through, suggesting “superhuman” visual content that is faster and cheaper to produce but disruptive to creative labour.

Across the wider creative industries, El-Habibi et al. (2024) find that generative systems act simultaneously as production-efficiency enhancers and as disruptive technologies raising copyright, authorship-verification and skill-devaluation concerns, concluding that AI works best as a collaborative augmentor governed by clear ethical and legal frameworks rather than as a substitute for human creators.

Design-lab evidence points the same way: Wang et al. (2025) show that a human–AI co-creative process enhances idea fluency for novices and refines outcomes for experts, with human experience and judgement remaining central to steering outputs. Collectively, this strand frames AI as a workflow technology rather than a replacement for creativity. However, it concentrates on production processes rather than audience outcomes, leaving the reception of AI visuals largely unexamined.

2.2 Institutional Communication Strategy in Digital Environments

Institutional communication strategy on social media is increasingly analysed as an integrated system of posting performance, interactivity and content choices. Capriotti & Zeler (2023), content-analysing seventy higher-education institutions across three platforms, find predominantly monologic interactivity and organisationally centred content — social media treated as broadcast rather than relationship infrastructure, an orientation AI-generated design could amplify or reverse. Longitudinal practitioner evidence likewise identifies trust and strategic alignment as enduring concerns, with the importance of algorithms rising even before the post-ChatGPT moment (Zerfass et al., 2023).

Brand identity evidence shows visual execution materially shapes outcomes: Hwang & Lee (2025) report that heavier logo use can reduce brand awareness while atmospheric cues increase it, implying generative systems should optimise coherent semiotics such as tone and composition rather than mechanically reproduce marks. Direct evidence on generative visuals in Arab institutional communication remains scarce; Hassouni & Mellor (2025) document concerns about authenticity, cultural representation bias, and the absence of clear guidelines despite national AI ambitions.

On governance, Khalid et al. (2025) find that digital ethics mediates the relationship between AI use and public relations outcomes, implying that institutions need explicit human oversight, disclosure norms and audit trails when deploying AI-generated visuals. Overall, this strand establishes the strategic weight of visual communication but leaves the relationship between institutional AI use and audience interaction unestablished.

2.3 Visual Communication Theories

Recent studies link visual communication theory to concrete design variables, colour, hierarchy, emotional cues and complexity. Koutromanou et al. (2023) find that image features such as the presence of people and the emotions of joy and calm significantly predict post popularity on Facebook and Instagram, operationalising core assumptions about attention and identification. Wu, T. et al. (2023) show that particular image–text formats on a government page produce higher engagement, and colour-cue experiments show that well-targeted cues guide attention and reduce cognitive load while excessive highlighting overburdens working memory (She et al., 2024).

Colour combinations also interact with learner characteristics such as gender to elicit distinct emotional and cognitive responses (Liew et al., 2022). Zhao (2023) shows that visual complexity enhances perceived sophistication only to a point before undermining brand clarity, and Wu, S., & Kim (2023) demonstrate that visual attractiveness, information quality and uniqueness jointly drive hedonic experience and electronic word of mouth. These principles are well established for human-made visuals; whether AI-generated visuals operate through the same perceptual mechanisms remains an open question.

2.4 User Engagement & Behavioural Psychology

Engagement research connects design elements to behavioural psychology within an attention economy. Yip et al. (2024) find that emotive messaging, behaviour-change cues and visually salient formats significantly increase likes, comments, shares and clicks; Phan et al. (2024) report that visually rich, brand-consistent and personalised posts strengthen engagement and purchase intention; and Avelle et al. (2024) show that early clicks and comments cascade into macro-level attention allocation through algorithmic amplification.

Motivational and uses-and-gratifications studies of Facebook, Instagram, X and TikTok reveal that entertainment, social interaction and self-expression motives predict problematic and persistent use (Alhabash et al., 2024; Wolgast et al., 2025). Montag & Elhai (2023) describe how such design elements are engineered, often through extensive A/B testing, to exploit psychological loopholes such as fear of missing out, and Torre et al. (2024) argue this reflects a deliberate techno-political economy of attention.

Work on intention-aware wellbeing tools (Zhao et al., 2024) and on the engagement-prolonging designs platforms present to young users (Chen, Y., et al., 2024) confirms that platform architectures deliberately exploit attentional biases and habit formation. However, this literature does not consider AI-generated visual design as a factor in user interaction.

Taken together, previous research has addressed AI in visual production, institutional communication strategy, visual communication principles and engagement psychology largely in isolation, concentrating on technological capability and production efficiency rather than on how AI-generated design is perceived, whether users distinguish it from human design, or how it shapes interaction behaviours, and empirical work in the Arab context is almost absent. This study addresses that gap through the three research questions above.

3. Methodology

3.1 Research Design

This study adopts a qualitative, interpretive research design. The choice follows from the form of the research questions, each of which asks how a practice is carried out, understood or responded to rather than how frequently it occurs. The design is additionally exploratory. As established in the literature review, empirical work on generative visual design in Arab institutional communication remains scarce, and no established measurement instrument exists for the constructs at issue.

3.2 Participants and Sampling

A purposive sampling strategy was used, stratified into three groups that correspond directly to the three research questions. This alignment is deliberate: each group occupies a different vantage point on AI-generated visual content, and together the three provide the production, deployment and analytical perspectives needed to address the questions as a set rather than piecemeal.

- Group 1, content creators, comprises graphic designers, video editors and social media content producers who use AI tools in visual production. This group addresses the first research question and supplies technical knowledge of processes and constraints.
- Group 2, institutional representatives, comprises professionals responsible for AI-generated visual content within

organisations. This group addresses the second research question and supplies strategic knowledge of organisational objectives and audience response.

- Group 3, experts and specialists, comprises specialists in artificial intelligence, digital media and visual communication. This group addresses the third research question and supplies an analytical and critical perspective on wider implications.

Nine participants were recruited, three in each group, producing a balanced representation of the three perspectives. The sample size is justified based on information power rather than statistical representativeness: participants were selected for depth of relevant experience, the interview guides were tightly specified against the research questions, and the analytic strategy is cross-case comparison within a defined framework. Under these conditions, a small, well-targeted sample yields sufficient information for the analytic purpose. Table 1 sets out the participant roster.

Table 1. Participant roster by group and linked research question

Group	Participant	Organisation/Role	RQ
Content creators	Participant 1	Ministry of Information/Head of Graphics Department	RQ1
Content creators	Participant 2	Kan Creative/Designer and Content Producer	RQ1
Content creators	Participant 3	Freelancer/ Graphic Designer	RQ1
Institutional representatives	Participant 4	Ministry of Information/ Chief of Digital Media	RQ2
Institutional representatives	Participant 5	Al-Tablighiya Women's Society/ Head of Media	RQ2
Institutional representatives	Participant 6	Bahrain International Circuit/ Head of Marketing and Communication	RQ2
Experts and specialists	Participant 7	Nasser Centre for Science and Technology/ Expert in Artificial Intelligence and Digital Media	RQ3
Experts and specialists	Participant 8	Ministry of Information/ Specialist in Media Production and Visual Content	RQ3
Experts and specialists	Participant 9	Gulf University/ Specialist in Visual Communication and Design	RQ3

3.3 Data Collection

Data were collected through semi-structured interviews. Three separate interview guides were developed, one per participant group, each derived directly from the research question assigned to that group.

The semi-structured format allowed each guide to be followed consistently while permitting the interviewer to pursue material that participants raised unprompted. Eight interviews were conducted in Arabic and one in English. All interviews were transcribed verbatim and organised question by question, preserving the participants' own formulations rather than paraphrasing them.

3.4 Analytical Tool and Approach

Coding and analysis were carried out in MAXQDA, a qualitative and mixed-methods analysis software widely used in framing and content-analytic research. The interview data were analysed using thematic analysis. The approach is predominantly deductive: a structured coding framework was developed in advance from the interview guides and the constructs identified in the literature review, which then governed the coding of the transcripts.

The analysis proceeded in six stages. First, familiarisation through repeated reading of the full set of transcripts. Second, development of the coding framework, resulting in ten main themes with associated sub-themes and operational evidence statements. Third, systematic coding of every paragraph in the nine transcripts against that framework. Fourth, tabulation of code frequencies overall, by theme and sub-theme, and by participant group. Fifth, cross-comparison between groups to identify convergence and divergence. Sixth, review of the themes against the coded extracts and interpretation in relation to the three research questions.

The paragraph, as it appears in the transcript, was adopted as the coding unit. In these transcripts, a paragraph typically corresponds to a complete proposition, a stated practice, a criterion, an observation, or a judgement, making it a coherent unit for thematic assignment while remaining fine-grained enough to register shifts within a single answer. The nine transcripts yielded 223 answer paragraphs.

Using MAXQDA analytical software, each coded paragraph was assigned one primary code, representing the theme for which the paragraph is principally evidence, and, where the paragraph clearly spoke to a second theme, one secondary code. This rule preserves a countable primary distribution while retaining the thematic overlap characteristic of semi-structured interview material, in which participants routinely address several dimensions within a single answer. Frequencies are therefore reported on two bases: primary codes only, and any occurrence including secondary codes.

Codes were assigned based on the content of the answer rather than on the theme implied by the question that prompted

it. Several paragraphs consequently carry a code that departs from the question heading under which they appear; for example, answers given under the Challenges question that, in substance, describe the changing role of the designer were coded to Future Implications rather than to Challenges and Limitations.

Table 2 presents the coding framework. Ten main themes were specified, each with a set of sub-themes and an operational evidence statement defining the material that qualifies for the code. The framework spans the full analytic terrain of the study: production practice (T1-T3), institutional deployment and audience response (T4-T6), constraints (T7), and consequences for communication practice, user experience and the future of the field (T8-T10).

Table 2. Thematic analysis codebook

Code	Main theme	Sub-themes	Operational evidence
T1	Use of AI in Visual Design	AI Tools, Workflow Integration, Level of Dependency	Use of tools such as Midjourney and DALL·E, the extent of reliance on AI versus manual editing, and the integration of AI tools into daily design workflows
T2	Motivations for Using AI	Efficiency, Creativity, Time-saving, Client Demands	Reasons for using AI, such as speed, increased productivity, enhanced creativity, and meeting client requirements
T3	Comparison with Traditional Design	Human vs AI Design, Flexibility, Quality Differences	Differences between traditional design and AI-generated design in terms of quality, creativity, and flexibility
T4	Audience Perception & Interaction	Engagement, User Awareness, Comments, Behavioural Response	Levels of audience engagement (likes, comments, shares), whether users can distinguish AI-generated from human-designed content, and its impact on perception and interaction
T5	Institutional Use of AI Visuals	Strategic Use, Campaigns, Content Types, Branding	Use of AI-generated visuals in campaigns and daily content, achieving marketing objectives, and integration within brand identity
T6	Evaluation Metrics	Performance Indicators, Engagement Metrics, Quality Assessment	Methods used to evaluate design success, including engagement rates, reach, content quality, and audience feedback
T7	Challenges & Limitations	Technical Issues, Authenticity, Trust, Ethical Concerns	Issues such as accuracy, authenticity, concerns about loss of creativity, and over-reliance on AI technologies
T8	Impact on Visual Communication	Design Principles, Creativity Shift, Communication Style	Influence of AI on colour, composition, visual messaging, and changes in communication styles
T9	Impact on User Behaviour	Attention, Interaction Patterns, Perception, Trust	How AI-generated visuals influence user attention, interaction decisions, and trust in content
T10	Future Implications	Industry Development, AI Adoption, Role of Designers	Future expectations, the evolving role of designers, and the increasing adoption of AI in institutions

3.5 Reliability and Validity

To ensure consistency, a pilot sample of 46 paragraphs from the transcripts and the codebook was coded, and inter-coder reliability was assessed using Cohen's kappa; a positive coefficient was obtained ($\kappa = 0.901$), which was considered acceptable.

3.6 Ethical Considerations

Participants were informed of the purpose of the study and consented to participation and to identification by role and organisational affiliation. No personal data relating to third parties were collected or reported. Participants retained the ability to decline any question, and organisational material was reported only at the level of practice rather than in terms of commercially or politically sensitive specifics.

3.7 Limitations

Three limitations bear on the interpretation of the findings. First, the sample comprises nine participants in a single national context, and the findings are accordingly presented as an account of practice in that setting rather than as generalisable claims.

Second, and most consequential for the second and third research questions, audience response was assessed only through reports from the professionals who produce and publish the content. No audience data were collected directly. Statements in the findings concerning what audiences notice, prefer, or distrust are therefore statements about what producers observe and infer, and they carry the interpretive limitations of that position.

Third, the three groups did not contribute equal quantities of codeable material: Group 1 produced 43 coded paragraphs, Group 2 produced 73, and Group 3 produced 107. Raw frequency comparisons between groups are therefore reported alongside proportions within each group, and the analysis relies on the latter when comparing between groups rather than within a single group.

4. Results

4.1 The Coded Corpus

Analysis produced 223 coded paragraphs distributed across the ten themes. Figure 1 shows the distribution of main themes, along with the sub-themes that compose each. Because a paragraph may carry more than one sub-theme within its primary code, the figure reports 328 sub-theme tags across the 223 paragraphs; bar lengths therefore exceed the paragraph counts reported in Figure 2.

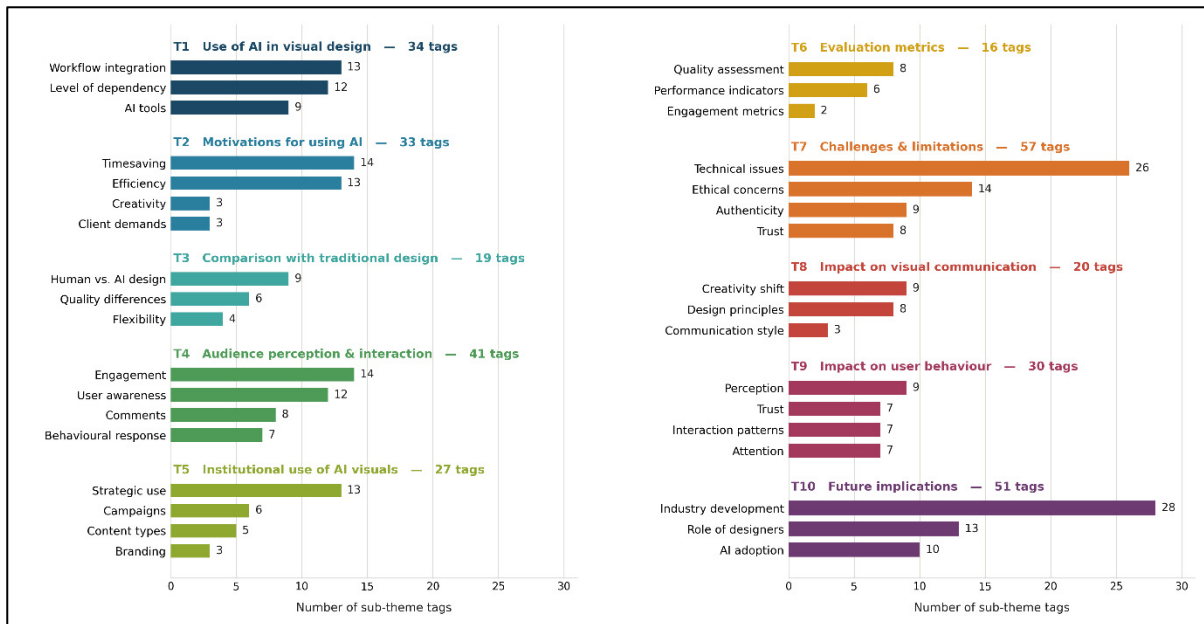


Figure 1. Distribution of main themes and sub-themes across the interviews

Figure 2 shows two themes dominate the corpus. Challenges and Limitations account for 41 primary codes and Future Implications for 38, together comprising 35% of all coded material. Within Challenges, technical issues alone account for 26 tags, more than any other sub-theme in the study, while ethical concerns, authenticity and trust contribute a further 31 between them. Within Future Implications, industry development accounts for 28 tags. Evaluation Metrics is the sparsest theme at 11 primary codes.

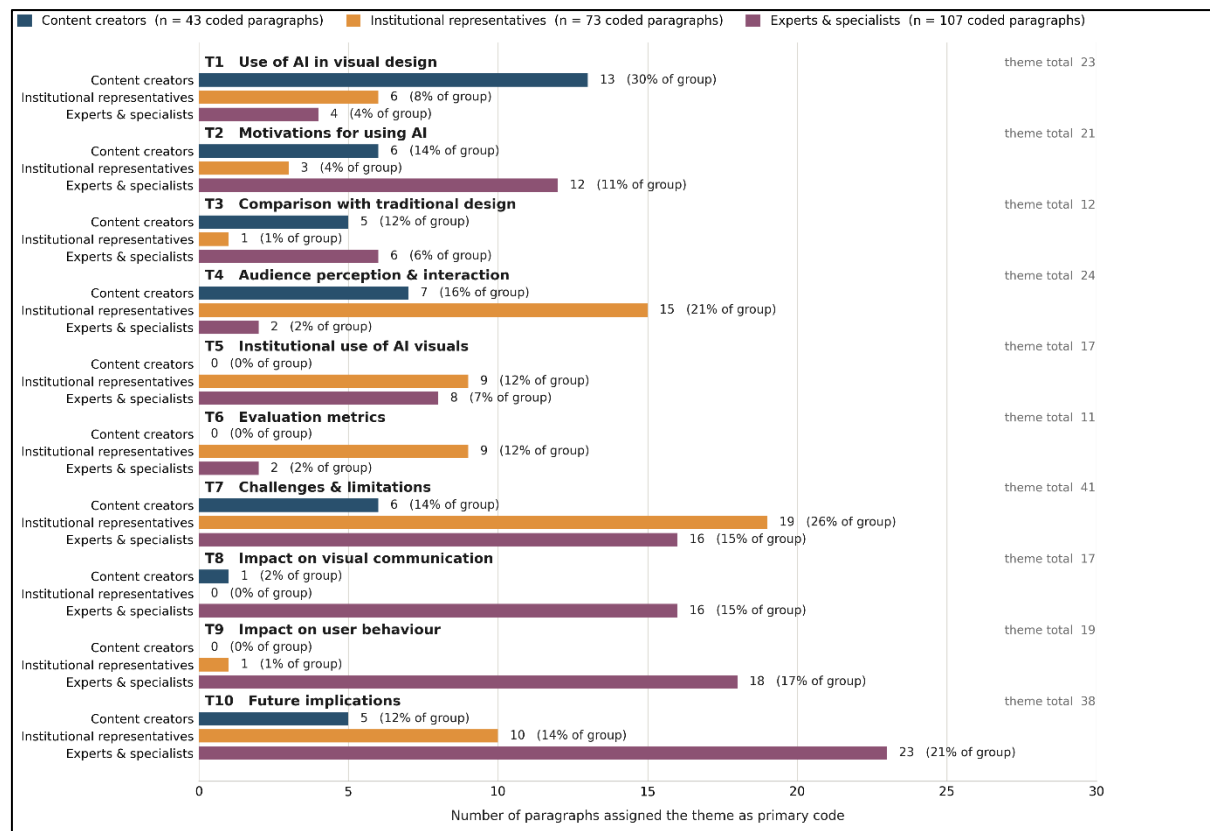


Figure 2. Distribution of primary codes by participant group

4.2 Adoption and Integration into Production Workflows

4.2.1 A Distributed Rather Than Centralised Tool Ecology

Participants did not describe AI as a single tool at a single point in production; it appears at three distinct workflow positions, with different tools at each.

At pre-production, AI supports style research and conceptual direction: Participant 3 queries ChatGPT on how to achieve a specified style, receiving guidance on colours, typefaces and composition before any execution begins.

At generation, dedicated models are used. Participant 2 described a chained workflow in which Gemini develops the idea and writes the prompt itself, executed in Gemini or Midjourney; Participant 3 uses generation tools largely because clients lack quality photography. Experts named Firefly, Leonardo and DALL·E as accelerating institutional uptake.

At post-production, AI functions as automation embedded in conventional software: Adobe-integrated features, background removal that has displaced manual masking entirely, and rapid trace conversions. Participants discussed these embedded functions in a matter-of-fact register, suggesting a considerable portion of AI adoption has already become invisible as such.

4.2.2 The Dependency Is Calibrated to Task Type, Not Adopted Wholesale

Reliance was indexed to task type rather than reported as a single level: 40-60% for Participant 1 depending on the project, 60-70% for Participant 2, and 70-80% in some departments of the first institution, particularly video, while remaining limited in official content demanding high accuracy.

Participant 3 articulated the conditional structure most explicitly:

"If the design depends only on graphic elements such as shapes and text without images, the work is entirely my own effort, and I do not rely on AI at all. However, where there are images within the design, reliance becomes relatively large, reaching around 50 to 60%."

Participant 3, Freelance Graphic Designer.

The revision loop is iterative and rarely resolved at first attempt: work is edited and then re-reviewed, and Participant 3 edits by modifying the prompt rather than retouching manually, requesting regeneration in the same style because repeated editing degrades image quality.

4.2.3 Time Is the Primary Motivation

Within the Motivations theme, time-saving and efficiency together account for 27 of 33 sub-theme tags, while creativity accounts for 3 and client demands for 3. The quantitative asymmetry is matched by the way participants spoke.

Participant 1 reported that three-dimensional scenes which previously took three days are completed in half an hour, saving 60-70% of production time; Participant 2 reported a week's work completed in one or two minutes given a correct prompt; Participant 9 cited a published figure of up to 83% acceleration in the design process.

Claims about creativity, by contrast, were routinely qualified. Participant 1 drew the distinction directly:

"As for creativity, AI does not produce creativity in itself. It opens wider options, provides more opportunities and makes it easier to reach varied results, but real creativity remains from the user himself, not from the tool."

Participant 1, Ministry of Information, Head of Graphics Department.

Participant 2 offered a comparable formulation, describing AI as a team that assists with brainstorming but does not think in her place. Cost reduction emerged as a third motivation in freelance work: generating elements inside a design replaces props or a shoot, with the saving passed to the client.

4.2.4 The Residual Human Domain

Every creator identified specific residual domains. Participant 3 confines AI to imagery because typography, alignment and the arrangement of elements remain areas where the designer performs better; Participant 9 noted that some tools still do not fully support Arabic, so imagery is generated and text added manually in design software.

Participant 1 framed the limitation as a trade-off rather than a defect, traditional methods give the designer full control, AI reduces it, and identified the new locus of professional differentiation:

"AI tools are still not fully professional for designers, since everyone uses the same tools. The difference lies only in the skill of writing the prompt engineering."

Participant 1, Ministry of Information, Head of Graphics Department.

The position recurred across groups: identical inputs yield different outputs across designers, establishing prompt engineering as a skill in its own right; Participant 5 treats prompt formulation as an explicit institutional criterion developed through teamwork; and Participant 2 framed non-use as a new AI illiteracy, making these tools a necessity rather than a choice.

4.3 Institutional Deployment and Audience Interaction

4.3.1 Three Distinct Strategic Logics

The three institutions studied use AI-generated visuals for materially different purposes, and the difference matters because each logic generates a different risk profile.

The first institution's logic is throughput and standardisation: converting news into infographics, rapid content from statistics, recurring scheduled designs, complete motion-graphic videos generated from text reports, unified visual identity and multi-platform resizing.

The logic of the Al-Tablighiya Women's Society is capacity substitution: lacking a full complement of designers and relying partly on voluntary labour, it used AI to move from static staged banners to a screen-based animated format it could not otherwise have executed.

Bahrain International Circuit's logic is representational, producing imagery of something that does not yet exist:

"So, what we did was we took a lot of photography from the new venue, but totally blank. And then you use AI to fill up the crowd, the stage, the players. Using that technology, which we would not have had even two years ago, we were able to use AI to create a video of an event at a new venue that had never happened before."

Participant 6: Bahrain International Circuit, Head of Marketing and Communication.

4.3.2 The Verification as Institution-specific Infrastructure

The strongest institutional convergence concerns verification. Challenges and Limitations leads this group at 26% of its coded material, and its substance is governance. All three institutions treat AI output as a draft requiring review before publication, and none permits full reliance.

The verification criteria, however, are not generic; each institution derives them from its own accountability regime. At the first institution, the criterion is provenance, internal sources only, since inaccurate external material processed by AI

could publish false information, and an internal AI system fed exclusively with institutional data was built, with mandatory human review retained:

"Because we are an official body, we are held accountable for the finest details, even simple errors such as commas or full stops. So, AI cannot be relied on without careful review."

Participant 4, Ministry of Information, Chief of Digital Media.

At Al-Tablighiya the criterion is doctrinal and historical accuracy: generated scenes are checked against source materials for form, materials and construction through multiple proofing stages, and a final review committee, and personal information is never entered into AI tools.

At Bahrain International Circuit the criterion is domain and brand realism: no car travelling the wrong way round the circuit, correct proportion between elements, architectural integrity preserved, and the Bahraini flag rendered with its five triangles. The verification burden is thus specific to each institution's domain of accountability and cannot be discharged by generic fact-checking or by the tool itself.

4.3.3 Two Evaluation Regimes, and the Scarcity of Audience Data

Evaluation Metrics is the sparsest theme, and only one participant evaluates AI-generated content against audience response: Participant 6 compares engagement on one piece of creative against another, describing it as the most obvious measure.

The other two institutions evaluate upstream, before publication: detail realism in generated video, fidelity to the Bahraini dialect in audio and fitness for purpose in static design at the first institution; an internal review and proofing system with committee approval at Al-Tablighiya.

9 of the 11 Evaluation codes come from the institutional group, and only two concern engagement metrics: quality assurance is currently exercised as pre-publication gatekeeping rather than post-publication measurement.

4.3.4 The Human-presence Premium

The most robust convergent finding in the study concerns what audiences respond to. Participants in two different groups, working in different sectors and interviewed in different languages, independently reported that content containing visible human presence outperforms content without it.

"When we have content with people in it, it always generates more interest, whether that is drivers, celebrities, fans, or interviewing fans. People relate to that, and they tend to engage more with things they relate to. So, the kind of content that works better is not AI-generated content; it is real people doing real things."

Participant 6: Bahrain International Circuit/Head of Marketing and Communication

Participant 4 reported the same pattern in a different sector; audiences in Bahrain prefer realistic images containing an element of life, an interactive shot of a public figure outperforming a static portrait; and Participant 2 reported that designs containing a human element are the most accepted.

Participant 6 supplied the boundary condition: for delivering information about an event, the production method makes little difference provided the message is clear, but for promoting an experience, people-based content always performs better. The premium attaches to experiential rather than informational communication.

4.3.5 The Detection, Disclosure, and the Ambiguity of Silence

Institutions reported little or no critical audience feedback on AI use, but the accounts reveal three distinct mechanisms producing the same absence, and they are not equivalent.

At the first institution, the mechanism is non-detection: distinguishing AI-generated from real content has become very difficult, and audiences attend to the content itself rather than its production method.

At Al-Tablighiya, the mechanism is detection combined with prior disclosure: comments explicitly identified the work as AI-produced, one audience segment regarded it as easily reproducible. At the same time, another was impressed, and the commissioning body had been informed and had accepted the use before execution.

At Bahrain International Circuit, the mechanism is restricted use, delivered within appropriate context and under a policy of never publishing unrealistic content.

An absence of complaint therefore cannot be read as audience acceptance: non-detection, informed acceptance and restricted exposure produce an identical null result while representing different states of affairs. Participant 5 identified a fourth factor, a twenty-one-year institutional history that has established audience trust, so content is not readily doubted. Institutional trust may be absorbing scrutiny that the content itself has not had to withstand.

4.4 Implications for Visual Communication and User Experience

4.4.1 From Tool Operation to Algorithmic Direction

Experts characterised the core transformation as a change in what design practice consists of: from operating traditional tools to directing generative algorithms toward multiple outputs, relocating the focus from individual skill to the productive capacity of the algorithms.

The accessibility consequence is that tools are no longer confined to professionals: small institutions, freelancers and non-specialists such as communication managers now produce visual content, and specialist designers who did not adopt the tools were visibly affected as the market became more competitive.

4.4.2 Design Principles: Consistency Gained, Affective Range at Risk

The effect on traditional visual communication principles was bidirectional rather than uniformly positive or negative, and different experts articulated both directions.

Participant 9 argued that consistency improves: AI directed with a defined list of criteria reduces the elementary errors that limited human experience previously produced, strengthens coherence of visual identity in colour, typography and messaging, and allows a single design to deploy across channels where each platform previously required its own.

Participant 8 identified the countervailing effect: some AI-generated designs do not convey emotion with the same force where the human element is absent, and a change in the labour of design:

“Previously, the designer presented one or two options. Now, a larger number of options are expected because they are easy to produce with these tools. This created pressure on designers, as organisations began asking for multiple options, changing the nature of traditional work.”

Participant 8, Ministry of Information, Specialist in Media Production and Visual Content.

Read together, these accounts suggest AI raises the floor of design competence while introducing risk at the ceiling, in the affective and symbolic register where the human element carries the message.

4.4.3 User Behaviour: A Novelty Cycle and Its Exhaustion

Impact on User Behaviour is almost exclusively an expert theme, accounting for 18 of its 19 primary codes. The experts described a consistent mechanism, and two of them described its limit.

The mechanism is novelty: audiences engage more with AI-generated content because it continually offers new ideas, whereas a long-held stylistic signature loses surprise. Users have come to expect continual renewal.

Both experts then identified its exhaustion: heavy repetition of the same techniques saturates content and reduces its effect, so AI participates in an accelerating novelty cycle in which the same accessibility that supplies renewal also shortens the interval before saturation.

Participant 9 identified a distinct change in the user’s role rather than the user’s attention:

“This type of content contributed to increasing interaction, and the user became not merely a recipient but a participant in producing the content, reusing images or videos, editing them and republishing them in their own way. Interaction has become more dynamic, no longer linear, but multidirectional.”

Participant 9, Gulf University, Specialist in visual communication and design.

4.4.4 Trust as an Emerging Condition of Engagement

Experts anticipated a shift in the basis of engagement. Participant 8 described an arc from initial acceptance to discomfort as quality improved, especially in facial detail and deepfake techniques, so that interaction now depends on credibility and persuasive force as well as design quality; Participant 7 raised the corresponding concern that some users cannot distinguish fabricated from real content at all.

This sits in tension with the institutional view of audiences as indifferent to provenance. The tension is best read not as contradiction but as lag: institutions report the present state of audience response while experts describe a trajectory; an empirical question this study cannot settle, since no audience data were collected.

4.4.5 Structural Constraints on Adoption

Recurring structural constraints span the groups: subscription cost and fragmentation across specialised tools; lengthy procurement procedures in government institutions delaying adoption; vendor lock-in through accumulated data and working history; and output unreliability, with identical prompts failing to reproduce results and session history repeating errors.

Information-security concerns were raised in two forms: the risk of uploading sensitive institutional material to external

tools, and the corresponding policy of excluding personal information from AI systems, alongside a persistent shortage of specialised AI training programmes for the creative field.

4.4.6 The Role of the Designer

Future Implications is the largest expert theme and shows striking consensus: every participant who addressed the question held that AI changes the designer's role rather than eliminating it.

"In the end, AI will not eliminate the designer's role; it will change it, and the designer who uses AI will become more efficient than others. History proves that technology does not eliminate the human being; it changes his role."

Participant 1, Ministry of Information, Head of Graphics Department

The retained function is conception; the designer remains responsible for idea and vision while AI assists execution; alongside warnings that excessive reliance may erode skills over time, and the concrete labour implication that one employee with AI can perform work that previously required several, with human supervision retained for precise work.

Expectations converged on AI taking a larger role in content management and production, possibly through agents executing complete tasks under human direction, and on the formal teaching of AI as a necessity.

4.5 Cross-group Divergence

Four points of divergence between the groups warrant explicit statement, since each has consequences for how the findings should be read.

First, on audience detection, institutions report non-detection or benign detection while experts anticipate eroding trust. Second, on creativity, creators frame AI as a neutral instrument whose creative content originates with the user, while experts divide on augmentation versus skill erosion.

Third, and most consequentially, Impact on User Behaviour accounts for 17% of expert material and almost nothing elsewhere: the institutions holding the platform analytics said little about audience behaviour, while the group furthest from the data supplied nearly all the claims. Fourth, only one of nine participants evaluates AI-generated content against audience response.

These last two points should be treated as limitations on the second and third research questions rather than as findings about audiences: the study's evidence on user behaviour is largely expert inference, and establishing what audiences actually do would require direct audience research or access to the platform analytics that the institutions hold but do not currently bring to bear on the question.

5. Discussion

On the first research question, concerning how AI-generated visuals are adopted and integrated into production workflows, the study finds adoption to be task-contingent rather than scalar. Participants reported no reliance at all on purely graphic work, 50 to 60% reliance when photographic imagery was involved, and 70 to 80% reliance in institutional video, so no single self-reported figure captures any of these regimes. Motivation proved narrower than the literature implies: time-saving and efficiency accounted for 27 of 33 sub-theme tags, while claims about creativity were consistently hedged. These results confirm the automation account of Mirzaei (2025) and the augmentation thesis of El-Habibi et al. (2024) and Wang et al. (2025). However, they qualify Hartmann et al. (2025), whose finding that AI images can surpass human-made visuals these practitioners do not recognise. The accounts reconcile once the object is specified: Hartmann evaluated discrete images judged by consumers, whereas these participants produce composite deliverables in which typography, alignment and Arabic setting are constitutive. The superhuman result is bound to the image as an evaluative object, not to the design as a deployable artefact.

On the second question, concerning institutional deployment and audience interaction, three distinct strategic logics were observed: throughput, capacity substitution, and representational; all three institutions had independently instituted mandatory human review. This supplies the practice behind Khalid et al.'s (2025) inference that AI deployment requires explicit oversight, while qualifying it: verification proved to be not one ethical competence but a family of domain-specific capacities, none substituting for another and none resident in the communication function, so frameworks pitched at sectoral level will underspecify what institutions need. Public disclosure was absent throughout, which matters because the reported absence of audience complaint arose through three different mechanisms, namely non-detection, disclosed detection and restricted use, and therefore cannot be read as consent. Whether AI amplifies the monologic orientation documented by Capriotti & Zeler (2023) proved conditional on strategic logic, holding under throughput but not under the other two.

On the third question, concerning implications for visual communication practice and user experience, the most robust

finding is that practitioners in two groups, two sectors, and two languages independently reported that content depicting people outperformed content without it, and identified this as a limit on where AI can be substituted. The attention and identification mechanism that Koutromanou et al. (2023) established for human-produced imagery therefore appears to be a property of what is depicted rather than of how it was produced, which is the study's provisional answer to the question of whether AI-generated visuals operate through comparable perceptual mechanisms. Experts additionally described a novelty cycle in which AI-driven renewal raises engagement until stylistic repetition saturates it, extending the loss of collective diversity that Doshi & Hauser (2024) document in production through to reception, and implying that institutions adopting AI in order to appear current are optimising a decaying return.

Two qualifications bound these conclusions. The incomplete Arabic support that several participants described is a structural constraint that specifically falls on Arab institutions, corroborating Hassouni & Mellor's (2025) cultural representation concerns from a new angle. More importantly, the account of audience response rests on practitioner observation rather than audience data, and only one of nine participants evaluated content against audience response. Claims advanced here about users are hypotheses generated by well-positioned informants rather than findings about users.

6. Conclusion

This study examined how AI-generated visual design is adopted in social media content production, deployed by institutions, and understood to influence user behaviour. Three conclusions follow. First, adoption is calibrated to task type rather than taken up wholesale: generative tools have displaced photographic sourcing and routine post-production, while typography, composition and Arabic setting remain the designer's domain, relocating professional differentiation to prompt formulation. Second, institutions treat AI output as a draft requiring verification. However, the criteria are domain-specific, running from diplomatic provenance to doctrinal accuracy and brand realism, so governance frameworks pitched at sectoral level will underspecify what institutions need. Public disclosure was absent throughout, and the reported absence of audience complaint cannot be read as acceptance, since it arose through three distinct mechanisms. Third, human presence in imagery remains the strongest predictor of engagement in practitioner accounts, bounding viable substitution to informational rather than experiential communication.

The principal limitation is that audience response was assessed only through practitioner report, and only one of the nine participants evaluated the content against audience data. Experimental audience research testing the human-presence premium and access to institutional platform analytics are the necessary next steps.

Acknowledgments

Not applicable.

Author contributions

Not applicable.

Funding

Not applicable.

Competing interests

Not applicable.

Informed consent

Obtained.

Ethics approval

The Publication Ethics Committee of the Redfame Publishing.

The journal's policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

Provenance and peer review

Not commissioned; externally double-blind peer reviewed.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.

Open access

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

References

- Alhabash, S., Smischney, T. M., Suneja, A., Nimmagadda, A., & White, L. (2024). So Similar, Yet So Different How Motivations to Use Facebook, Instagram, Twitter, and TikTok Predict Problematic Use and Use Continuance Intentions. *Sage Open*. <https://doi.org/10.1177/21582440241255426>
- Avalle, M., Marco, N. D., Etta, G., Sangiorgio, E., Alipour, S., Bonetti, A., ... & Quattrociochi, W. (2024). Persistent interaction patterns across social media platforms and over time. *Nature*, 582-589. <https://doi.org/10.1038/s41586-024-07229-y>
- Capriotti, P., & Zeler, I. (2023). Analysing effective social media communication in higher education institutions. *Humanities and Social Sciences Communications*, 1-14. <https://doi.org/10.1057/s41599-023-02187-8>
- Chen, J., Shao, Z., Zheng, X., Zhang, K., & Yin, J. (2024). Integrating aesthetics and efficiency: AI-driven diffusion models for visually pleasing interior design generation. *Scientific Reports*. <https://doi.org/10.1038/s41598-024-53318-3>
- Chen, Y., Fu, Y., Chen, Z., Radesky, J., & Hiniker, A. (2024). The Engagement-Prolonging Designs Teens Encounter on Very Large Online Platforms. *arXiv (Cornell University)*. <https://doi.org/10.48550/arxiv.2411.12083>
- Doshi, A. R., & Hauser, O. (2024). Generative AI enhances individual creativity but reduces the collective diversity of novel content. *Science Advances*, 10(28). <https://doi.org/10.1126/sciadv.adn5290>
- El-Habibi, M. F., Hamed, M. A., Sababa, R. Z., Al-Hanjori, M. M., Abu-Nasser, B. S., & Abu-Naser, S. S. (2024). Generative AI in the creative industries: Revolutionising art, music, and media. *International Journal of Academic Engineering Research (IJAER)*, 8(10), 71–74.
- Hartmann, J., Exner, Y., & Domdey, S. (2025). The power of generative marketing: Can generative AI create superhuman visual marketing content? *International Journal of Research in Marketing*, 42(1), 13-31. <https://doi.org/10.1016/j.ijresmar.2024.09.002>
- Hassouni, A., & Mellor, N. (2025). AI in the United Arab Emirates' Media Sector: Balancing Efficiency and Cultural Integrity. *MDPI: Journalism and Media*, 1-15. <https://doi.org/10.3390/journalmedia6010031>
- Hwang, I.-K., & Lee, H. (2025). Brand Identity Visualisation to Enhance Brand Awareness Contingent on the Message Strategy for Social Media Video Communication. *Archives of Design Research*, 51-75. <https://doi.org/10.15187/adr.2025.08.38.3.51>
- Khalid, U., Ahmad, M., Chan, T. J., Pradana, M., & Singh, S. (2025). Mediating role of Digital Ethics on the impact of Artificial Intelligence Usage and Public Relations Practices: evidence from Malaysia. *Frontiers in Artificial Intelligence*, 1-10. <https://doi.org/10.3389/frai.2025.1662219>
- Koutromanou, E., Sotirakou, C., & Mourlas, C. (2023). Examining visual impact: predicting popularity and assessing social media visual strategies for NGOs. *Online Media and Global Communication*, 2(4), 594-620. <https://doi.org/10.1515/omgc-2023-0025>
- Kusuma, A. A., Afiff, A. Z., Gayatri, G., & Hati, S. R. H. (2024). Is visual content modality a limiting factor for social capital? Examining user engagement within Instagram-based brand communities. *Humanities and Social Sciences Communications*, 11(1). <https://doi.org/10.1057/s41599-023-02529-6>
- Liew, T. W., Tan, S.-M., Gan, C. L., & Pang, W. M. (2022). Colors and Learner's Gender Evoke Different Emotional and Cognitive Effects in Multimedia Learning. *Human Behavior and Emerging Technologies*. <https://doi.org/10.1155%2F2022%2F1235732>
- Mirzaei, V. (2025). The Impact of Artificial Intelligence on Creativity in Graphic Design. *SSRN Electronic Journal*, 8(9), 494-500. <https://doi.org/10.2139/ssrn.5292032>
- Møller, A. G., Romero, D. M., Jurgens, D., & Aiello, L. M. (2026). The impact of generative AI on social media: an experimental study. *Scientific Reports*. <https://doi.org/10.1038/s41598-026-40110-8>
- Montag, C., & Elhai, J. D. (2023). On Social Media Design, (Online-)Time Well-spent and Addictive Behaviors in the Age

- of Surveillance Capitalism. *Current Addiction Reports*, 10(3), 610. <https://doi.org/10.1007/s40429-023-00494-3>
- Muhtar, St. M., Amir, A. S., & Arya, N. (2024). Utilising Social Media for Public Health Advocacy and Awareness in Digital Health Communication. *MSJ Majority Science Journal*, 2(1), 270. <https://doi.org/10.61942/msj.v2i1.96>
- Phan, A. T., Nguyen, A. V., Ho, N. V., & Hai, G. H. (2024). Social media marketing and customer purchase intention: Evidence-based bibliometrics and text analysis. *Innovative Marketing*, 169-181. [http://dx.doi.org/10.21511/im.20\(2\).2024.14](http://dx.doi.org/10.21511/im.20(2).2024.14)
- She, L., Wang, Z., Tao, X., & Lai, L. (2024). The Impact of Color Cues on the Learning Performance in Video Lectures. *Behavioral Sciences (Basel, Switzerland)*. <https://doi.org/10.3390/bs14070560>
- Torre, P. G. de la, Pérez-Verdugo, M., & Barandiaran, X. E. (2024). Attention is all they need: Cognitive science and the (techno)political economy of attention in humans and machines. *arXiv (Cornell University)*. <https://doi.org/10.48550/arxiv.2405.06478>
- Wang, N., Kim, H., Peng, J., & Wang, J. (2025). Exploring creativity in human-AI co-creation: a comparative study across design experience. *Frontiers in Computer Science*, 7. <https://doi.org/10.3389/fcomp.2025.1672735>
- Wolgast, M., Adler, H., & Wolgast, S. N. (2025). Motives for social media use in adults: associations with platform-specific use, psychological distress, and problematic engagement. *Journal of Social Media Research*, 2(3), 179. <https://doi.org/10.29329/jsomer.45>
- Wu, S., & Kim, S. Y. (2023). The Co-creation of Luxury Brand Hedonic Experiences in Social Media: Luxury Brand Strategies from a Design Perspective. *Archives of Design Research*, 27-47. <https://doi.org/10.15187/adr.2023.08.36.3.27>
- Wu, T., Su, Y.-M., & Chou, D.-C. (2023). Using Big Data to Analyse Impact of Visual Design on Social Networking. *MDPI: Engineering Proceedings*. <https://doi.org/10.3390/engproc2023038023>
- Yip, Y. Y., Makmor-Bakry, M., & Chong, W. W. (2024). Elements Influencing User Engagement in Social Media Posts on Lifestyle Risk Factors Systematic Review. *Journal of Medical Internet Research*. <https://doi.org/10.2196/59742>
- Zachurzok-Srebrny, E. (2024). Using Artificial Intelligence for Customer Engagement in Social Media. *Scientific Papers of Silesian University of Technology Organization and Management Series*, 2024(209), 541. <https://doi.org/10.29119/1641-3466.2024.209.33>
- Zerfass, A., Tench, R., Verčič, D., Moreno, Á., Buhmann, A., & Hagelstein, J. (2023). European Communication Monitor 2023: Looking back and ahead: 15 years of research on strategic communication. *European Communication Monitor*. Retrieved from <https://www.communicationmonitor.eu/2023/09/07/ecm-european-communication-monitor-2023/>
- Zhao, Q. (2023). Social Media Images' Visual Complexity Affects Consumers' Perceptions of Brands. *The International Conference on Interdisciplinary Humanities and Communication Studies*. <https://doi.org/10.54254/2753-7048/5/2022892>
- Zhao, Y., Li, T., & Sobolev, M. (2024). Digital Wellbeing Redefined: Toward User-Centric Approach for Positive Social Media Engagement. *International Conference on Mobile Software Engineering and Systems*, <https://doi.org/10.48550/arXiv.2403.05723>.
- Zhou, E., & Lee, D. (2024). Generative artificial intelligence, human creativity, and art. *PNAS Nexus*, 3(3), 52. <https://doi.org/10.1093/pnasnexus/pgae052>