



Collaborative Intelligence and Digital Agency: Women's Lived Experiences in Navigating Human-AI Interaction on Canva

Symmas Pinasthika Syarbini*
Universitas Binus, INDONESIA

Irmawan Rahyadi
Universitas Binus, INDONESIA

Muhammad Aras
Universitas Binus, INDONESIA

La Mani
Universitas Binus, INDONESIA

Article Info

Article history:

Received: March 14, 2026

Revised: April 28, 2026

Accepted: May 12, 2026

Keywords:

Canva AI;
Collaborative Intelligence;
Digital Agency;
Human-AI Interaction.

Abstract

The rapid development of generative artificial intelligence (AI) has transformed digital creative practices, enabling users to produce visual content through AI-assisted design platforms. However, limited research has explored how everyday users experience collaboration with AI tools in creative production, particularly in relation to maintaining digital agency and creative control. This study aims to explore women's lived experiences in interacting with Canva AI during visual content production and to understand how collaborative intelligence and digital agency emerge in AI-assisted creative practices. The study employed a qualitative approach using Interpretative Phenomenological Analysis (IPA). Data were collected through in-depth interviews with seven women who actively use Canva AI in their digital content production activities. The analysis identified four key experiential dimensions: reflexive agency, collaborative intelligence, ethical and cultural filtering, and digital empowerment. Participants treated AI-generated visuals as preliminary materials requiring human interpretation, refinement, and contextual judgment before publication. Canva AI was perceived as a co-creative partner that accelerated idea generation while preserving human control over the final design decisions. The findings suggest that collaborative intelligence in AI-assisted creativity functions as a partnership between human interpretation and technological support, where human agency remains central in shaping digital communication practices.

To cite this article: Syarbini, S. P., Rahyadi, I., Aras, M., & Mani, L. (2026). Collaborative Intelligence and Digital Agency: Women's Lived Experiences in Navigating Human-AI Interaction on. *Smart Society: Community Service and Empowerment Journal*, 6(2), 1-13.

INTRODUCTION

The rapid advancement of generative artificial intelligence (AI) has significantly transformed the ways individuals interact with digital technologies and produce creative content in contemporary digital environments (Amankwah-Amoah et al., 2024; Wessel et al., 2025). AI-powered tools are increasingly integrated into digital platforms, enabling users to generate images, modify visual elements, and design digital materials through automated or semi-automated processes (Li et al., 2024; Shneiderman, 2020). As these technologies become more accessible, they expand opportunities for individuals without professional design expertise to participate in digital content production and visual communication (Bian & Ji, 2021; Li et al., 2024). Previous research suggests that generative AI has reshaped human-AI interaction by influencing how users perceive technological assistance, creativity, and decision-making in digital practices (Fui-Hoon Nah et al., 2023; Mogaji & Jain, 2024). In this context, generative AI also enables new forms of collaborative intelligence, where human creativity interacts with machine-generated suggestions through iterative processes of prompting, interpretation, and refinement (Dellermann et al., 2019; Shneiderman, 2020).

The increasing integration of AI into everyday digital tools has stimulated growing scholarly interest in how users perceive and interact with AI-assisted systems (Borger et al., 2023). Studies have shown that users' familiarity with generative AI and their perceptions of technological risks can

* Corresponding author:

Symmas Pinasthika Syarbini, Universitas Binus, INDONESIA. ✉ symmas.syarbini@binus.ac.id

© 2026 The Author(s). Open Access. This article is under the CC BY SA license (<https://creativecommons.org/licenses/by-sa/4.0/>)

influence their sense of control, trust, and agency when interacting with AI-generated outputs (Barisione et al., 2025; Yu et al., 2025). In organizational settings, research on employee–AI collaboration demonstrates that AI support can shape behavioral outcomes depending on whether users perceive AI as a collaborative partner or as a technological threat (Chen et al., 2025). Other studies examining conversational AI also reveal that system characteristics, including communication styles and gendered AI representations, influence how users evaluate and respond to AI interactions (O’Driscoll & Blackwell, 2025). These studies collectively suggest that human–AI collaboration is not solely determined by technological capabilities but is also shaped by social norms, psychological perceptions, and contextual interpretations (Dellermann et al., 2019; Shneiderman, 2020).

Despite these growing scholarly discussions, much of the existing literature has primarily focused on human–AI interaction in institutional or technological contexts, such as workplace collaboration, technological adoption, and system design characteristics (Ali et al., 2025; Magliocca et al., 2024). While such studies provide valuable insights into how users perceive and evaluate AI technologies, relatively limited attention has been given to how individuals experience AI collaboration in everyday creative practices. This limitation becomes particularly evident in the context of AI-assisted creative platforms that support digital content production (Anantrasirichai & Bull, 2022; Liang, 2024). Platforms such as Canva increasingly integrate generative AI features, including text-to-image generation, automated visual editing, and AI-assisted design suggestions that enable users to produce visual content efficiently (Bansal et al., 2024; Herath et al., 2026). However, the ways in which users interpret AI-generated outputs, negotiate creative authority, and maintain their digital agency within such AI-assisted environments remain insufficiently explored.

This research gap becomes even more significant when considering the experiences of women who actively participate in digital content creation and online communication environments. Women increasingly use digital platforms for various purposes, including personal branding, educational communication, entrepreneurial promotion, and community engagement (Chakraborty & Biswal, 2023; Waheed et al., 2022). In such contexts, digital content creation is not merely a technical activity but also a form of self-expression through which users negotiate identity, values, and communication strategies in networked public spaces (Bartoli et al., 2023; Pathak-Shelat & Bhatia, 2019). Nevertheless, existing studies rarely examine how women experience collaboration with generative AI technologies in everyday creative production or how they maintain control over their digital expressions while interacting with AI-assisted systems. Understanding these experiences is important for revealing how digital agency is constructed and negotiated within human–AI collaborative environments (Dellermann et al., 2019; Shneiderman, 2020).

Based on this gap, this study aims to explore how women as active users of Canva AI experience and negotiate human–AI collaboration in the process of producing visual content for social media. Specifically, this research seeks to understand how users interpret AI-generated outputs, integrate them into their creative workflows, and exercise judgment in refining AI-assisted designs. Furthermore, the study investigates how women maintain their digital agency while working with generative AI technologies, particularly in balancing technological assistance with personal creativity, cultural considerations, and communicative intentions. By employing an interpretative phenomenological approach, this research provides deeper insights into the experiential processes through which users interact with AI-assisted creative tools in everyday digital practices.

To clarify the conceptual relationships underlying this study, a conceptual framework is proposed to illustrate how women’s lived experiences as digital creators interact with Canva AI during visual content production. The framework highlights the key dimensions of human–AI collaboration that shape collaborative intelligence and digital agency in AI-assisted creative practices, as presented in Figure 1.

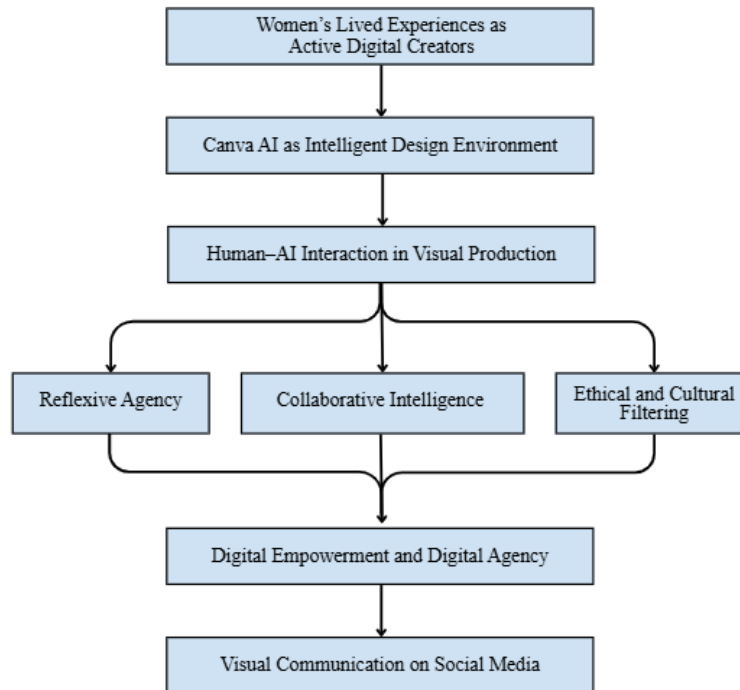


Figure 1. Conceptual framework of women's lived experiences in navigating collaborative intelligence and digital agency through Canva AI-assisted visual production.

The novelty of this study lies in its focus on women's lived experiences in negotiating collaborative intelligence and digital agency within AI-assisted creative platforms. While previous studies have largely examined human-AI interaction in organizational settings, technological adoption contexts, or system design perspectives (Barisone et al., 2025; Chen et al., 2025; O'Driscoll & Blackwell, 2025), this research investigates how everyday users actively interpret, adapt, and refine AI-generated outputs as part of their creative communication practices. By situating human-AI collaboration within the context of digital content creation using Canva AI, this study contributes to the literature on human-AI interaction by highlighting how collaborative intelligence emerges through iterative interactions between human creativity and generative AI systems in contemporary digital environments.

METHOD

Research Design

This study employed a qualitative research design using Interpretative Phenomenological Analysis (IPA) to explore women's lived experiences in navigating human-AI interaction through Canva AI-assisted visual production. IPA was selected because the purpose of the study was to understand how individuals interpret and construct meaning from their experiences when interacting with emerging technologies (Cuthbertson et al., 2020; Kelly et al., 2023). In this research, Canva AI was not treated merely as a technical tool but as a socio-technical environment in which human creativity, personal values, and machine-generated suggestions interact during the visual design process.

The study was grounded in a constructivist paradigm, which assumes that meaning is produced through individuals' interpretations of their experiences within specific social and cultural contexts. From this perspective, the interaction between users and AI systems is understood as a reflective and interpretative process rather than a purely technological activity. Therefore, the research focused on how participants experienced collaborative intelligence and maintained digital agency while using Canva AI to create visual content for social media.

It is important to note that this study did not include the prototyping and testing stages of the Design Thinking process. Instead, the primary outcome of the research was a conceptual design framework that outlines the instructional features and design requirements of School ARventure.

This framework is intended to serve as a foundation for future prototype development and empirical evaluation.

Participants

Participants were selected using purposive sampling to ensure that individuals included in the study had relevant experience with AI-assisted design practices. The study involved seven female participants who actively used Canva AI to produce digital visual content for social media communication or professional activities.

The participants represented diverse professional backgrounds, including digital creators, educators, community organizers, and small business promoters. Despite their different professional contexts, all participants regularly integrated Canva AI into their visual content production processes.

To ensure sufficient experiential depth, participants were required to meet the following criteria:

1. Actively use Canva AI features in their visual design workflow
2. Have experience publishing AI-assisted visual content on social media
3. Have used Canva AI tools for at least six months

These criteria ensured that participants had sustained interaction with the platform and were able to reflect meaningfully on their experiences of human–AI collaboration.

Instrument

Data were collected primarily through semi-structured in-depth interviews designed to explore participants' experiences in interacting with Canva AI during visual content creation. The interview protocol included open-ended questions that encouraged participants to describe their experiences, reflections, and interpretations regarding AI-assisted design practices.

The interview questions focused on several key topics, including:

1. participants' initial experiences using Canva AI
2. how AI-generated outputs were interpreted and evaluated
3. participants' role in refining AI-generated visual designs
4. perceptions of creative control and authorship when working with AI
5. ethical, cultural, and communicative considerations in selecting visual outputs

Each interview lasted between 45 and 70 minutes and was conducted individually to allow participants to express their perspectives in depth. To complement the interview data, the study also included limited observation of participants' publicly shared visual materials on social media. This additional observation helped contextualize how AI-generated outputs were refined and adapted before being published as part of participants' digital communication practices.

Data Analysis

The interview data were analyzed using the standard stages of Interpretative Phenomenological Analysis (IPA) (Smith et al., 2020). All interviews were audio-recorded and transcribed verbatim to preserve the authenticity of participants' narratives.

The analysis followed several iterative steps:

1. Reading and familiarization
Each transcript was read multiple times to develop a holistic understanding of participants' experiences.
2. Initial noting
Detailed notes were produced to capture experiential descriptions related to human–AI interaction, creative decision-making, and digital self-expression.
3. Development of emergent themes
Key meanings within each transcript were identified and organized into preliminary thematic categories.
4. Cross-case thematic analysis
Themes from individual participants were compared to identify shared experiential patterns across the dataset.

Through this process, several recurring themes emerged regarding how participants interacted with Canva AI, including reflexive agency in evaluating AI-generated outputs, collaborative intelligence in prompt-based visual generation, ethical and cultural filtering of AI

suggestions, and digital empowerment through AI-assisted design tools. The final interpretation was developed by relating the thematic findings to broader discussions on collaborative intelligence and digital agency within human–AI interaction research.

RESULT AND DISCUSSION

Result

Participants came from diverse professional backgrounds, including education, digital entrepreneurship, and content development. Despite these differences, all participants shared active engagement in digital content production, where Canva AI had become part of their routine visual workflow.

The analysis provides insight into how participants experienced their interaction with Canva AI during visual content production. Across all interviews, Canva AI was not perceived as a system that replaces human creativity. Instead, participants described it as a design environment that requires continuous interpretation, selection, and refinement of AI-generated outputs. In this context, AI-generated visuals were treated as provisional materials that required human judgment before becoming meaningful visual communication.

The phenomenological analysis revealed four major experiential themes that characterize women's interaction with Canva AI: reflexive agency, collaborative intelligence, ethical and cultural filtering, and digital empowerment and agency. These themes illustrate how participants negotiated human–AI collaboration while maintaining control over their creative outputs.

Table 1 summarizes the main themes identified across participants and provides representative statements illustrating how these experiences were articulated during the interviews.

Table 1. Summary of Main Themes in Women's Human AI Interaction on Canva

Main Theme	Meaning Focus	Participants	Representative Statement	Interpretation
Reflexive Agency	AI outputs are treated as initial material requiring human refinement	P1, P4, P6	"Sometimes the result looks good, but I still need to adjust it again."	Human control remains central despite AI assistance
Collaborative Intelligence	AI supports idea generation and accelerates production	P2, P3, P7	"The tool helps me start faster, but the final form still depends on me."	AI functions as a collaborative partner rather than replacement
Ethical and Cultural Filtering	Outputs are selected according to personal values and visual boundaries	P4, P5	"Brand DNA must stay clear."	Visual decisions remain socially and culturally mediated
Digital Empowerment and Agency	AI lowers technical barriers and increases confidence	P6, P7	"Now I can make materials faster and publish more confidently."	Canva AI supports broader digital participation

The themes presented in Table 1 demonstrate that Canva AI functions not simply as a technical design tool but as a collaborative system in which AI-generated suggestions are continuously interpreted, refined, and aligned with participants' communicative intentions before being shared in digital environments.

1. Reflexive Agency in Human–AI Creative Negotiation

One of the most prominent themes emerging from the interviews is reflexive agency, which refers to participants' active role in evaluating and modifying AI-generated outputs. Although Canva AI accelerated the visual production process, participants consistently emphasized the need for further refinement to ensure that generated visuals aligned with their communicative goals and personal design preferences.

For example, Participant 1 noted that AI-generated images often appeared technically acceptable but lacked the appropriate expressive tone. She explained, "It looks good, but it feels very generic, so I have to edit it again." Similarly, Participant 6 described repeatedly prompting the system

to obtain a suitable result, stating, "I once used many credits to get one output that felt close enough, but I still had to edit it."

These experiences indicate that participants did not treat AI-generated visuals as final products. Instead, they viewed them as provisional resources that required further interpretation and modification. Reflexive agency was demonstrated through iterative prompting, selective evaluation of generated outputs, and adjustments in layout and visual composition. Figure 2 illustrates an example of repeated prompt attempts made by Participant 6 while interacting with Canva AI to obtain a usable visual output before manual refinement.

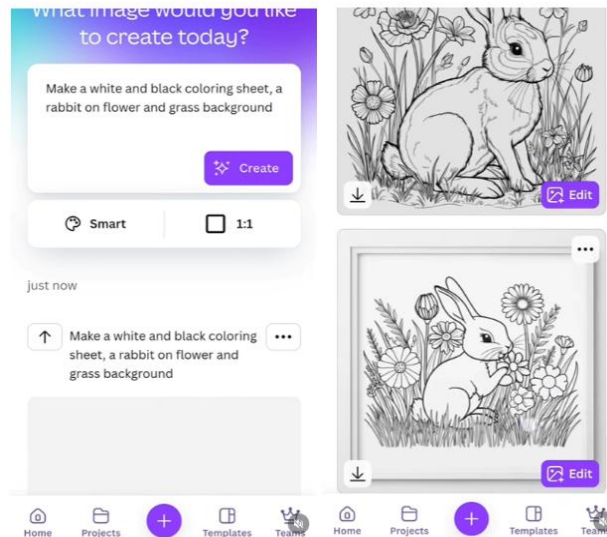


Figure 2. Example of repeated prompt attempts by Participant 6 in Canva AI to obtain a usable visual output before manual refinement.

Although AI facilitated rapid idea generation, human judgment remained central in guiding the design process. Participants continued to evaluate aesthetic coherence, communicative clarity, and contextual relevance before accepting or modifying AI-generated visuals.

2. Collaborative Intelligence in Everyday Visual Production

Another major theme emerging from the findings is collaborative intelligence, which describes how participants experienced the design process as an interactive collaboration between human creativity and AI-generated suggestions. Participants frequently described Canva AI as a tool that accelerated the early stages of idea generation while still requiring human input to structure the final design. Participant 2 explained that Canva AI helped generate highly specific visual elements that would otherwise require extensive searching. She stated, "If I want something very specific, like a woman with a particular hairstyle, Canva AI can generate it quickly." However, she emphasized that AI-generated images were rarely used without further modification.

Similarly, Participant 3 described Canva AI as a tool that increased production efficiency but still required human direction to achieve meaningful results. She noted, "Although this tool helps me start faster, the final result still depends on the structure I give it." Figure 3 presents an example of Participant 3's use of Canva AI's background generation feature to enhance visual content through human-directed prompting and layout selection.



Figure 3. Participant 3's use of Canva AI background generation to enhance visual content through human-directed prompting and layout selection.

These findings suggest that collaborative intelligence operates as a dialogical process rather than a one-directional automated workflow. While AI systems provide visual alternatives and accelerate experimentation, participants remain responsible for contextual interpretation, aesthetic coherence, and communicative relevance.

3. Ethical and Cultural Filtering in AI-Assisted Design

The results also reveal that participants engaged in ethical and cultural filtering when selecting and modifying AI-generated visuals. Participants did not evaluate AI outputs solely based on technical quality but also considered cultural appropriateness, audience expectations, and personal values. Participant 5 described avoiding certain AI-generated illustrations that displayed full facial features because some audiences within her community might perceive them as culturally inappropriate. She explained, "I had to avoid several illustrations that showed faces because some people feel uncomfortable with that."

Similarly, Participant 4 emphasized the importance of maintaining visual consistency with her personal branding identity. She stated, "I normally have a specific way of expressing myself, so no matter how many ideas the AI has, they won't all be relevant to me." These experiences demonstrate that AI-generated visuals remain subject to human cultural interpretation. Participants actively determined which outputs were acceptable, which required modification, and which should be discarded entirely. As a result, collaborative intelligence in AI-assisted design remained strongly contextual, shaped by social norms and personal value systems throughout the creative process.

4. Digital Empowerment and Agency in Everyday Visual Production

Another important finding relates to the sense of digital empowerment experienced by participants when using Canva AI. Participants reported that AI-assisted design tools reduced technical barriers and enabled them to produce visual materials independently without relying on external designers. Participant 7 explained that the ability to create visual content independently increased her confidence in producing and sharing digital materials. She stated that Canva AI allowed her to develop promotional graphics without waiting for external assistance.

Figure 4 presents an example of Participant 7's everyday use of Canva AI, demonstrating how AI-assisted design supported independent content production and strengthened participants' digital confidence.

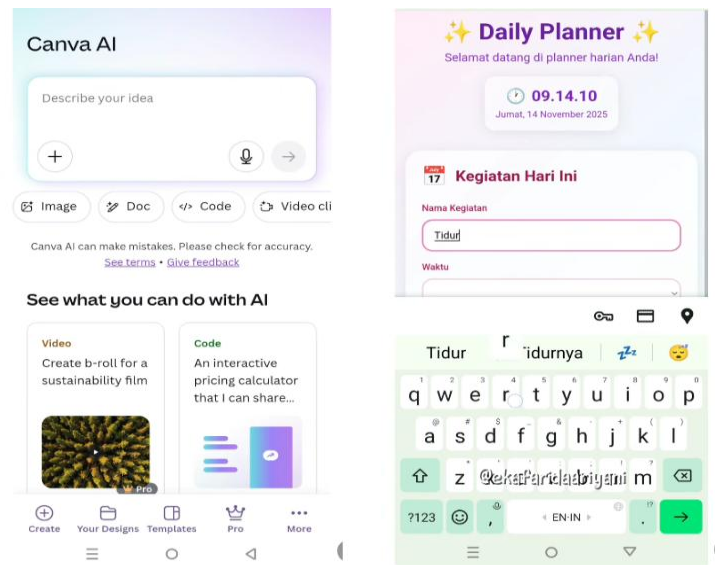


Figure 4. Example of Participant 7's everyday use of Canva AI, showing how AI-assisted design supported independent content production and strengthened digital confidence.

Participant 6 also described a sense of satisfaction when the final design aligned with her expectations. Even when AI contributed to the process, she still perceived the final outcome as a product of her own creative effort. For several participants, this confidence extended into professional and economic activities. AI-assisted design supported educational outreach, small business promotion, and freelance visual production. These findings suggest that Canva AI contributes to digital empowerment not only through task automation but also by reducing barriers that previously limited creative participation. Across participants, the final stage of AI-assisted production was closely connected to communication goals on social media. Visual outputs were not treated as isolated design artifacts but as communicative resources used to convey identity, meaning, and visibility within digital environments.

Discussion

The findings of this study reveal that women's interaction with Canva AI represents a form of collaborative intelligence in which human creativity and artificial intelligence interact through a dynamic and interpretative relationship. Rather than replacing human creativity, Canva AI functioned as a design environment that supported idea generation while still requiring human evaluation, refinement, and contextual judgment. Participants consistently treated AI-generated visuals as provisional materials that required further adjustment before they could be used as meaningful digital communication. Across the interviews, four key experiential dimensions emerged: reflexive agency, collaborative intelligence, ethical and cultural filtering, and digital empowerment. These findings suggest that AI-assisted visual production is not an automated creative process but a negotiated interaction in which users maintain interpretative authority over technological outputs, reflecting broader patterns of human-AI collaboration identified in recent research on generative AI systems (Barisione et al., 2025; Yang, 2024).

The presence of strong reflexive agency among participants indicates that AI-assisted creativity continues to rely heavily on human evaluative judgment. Participants did not passively accept AI-generated results but actively modified prompts, adjusted layouts, and selectively refined generated visuals to align with their communicative intentions. In this sense, AI functions primarily as an ideation catalyst rather than a replacement for human creativity. The interaction between users and Canva AI can therefore be understood as a relational creative process in which technological suggestions stimulate human decision-making rather than determine it. This interpretation aligns with research suggesting that generative AI systems tend to enhance creative exploration when users remain actively involved in guiding the creative process and evaluating machine-generated outputs (Davenport & Mittal, 2022; Shneiderman, 2020).

Suggests that technologies offer possibilities for action that are interpreted and enacted by users within specific contexts. Participants in this study did not simply follow the suggestions provided by Canva AI but interpreted those suggestions according to their communicative goals and

aesthetic preferences. Similarly, (Tong, 2024) argues that digital technologies acquire meaning only through human engagement and purposeful use. The findings also resonate with Shneiderman (2020) concept of human-centered artificial intelligence, which emphasizes that intelligent systems are most valuable when human direction remains central in guiding technological processes. In addition, recent studies on conversational and generative AI suggest that users' interpretations of AI-generated outputs are shaped by social norms, expectations, and contextual judgments rather than purely technical considerations (O'Driscoll & Blackwell, 2025).

This study contributes to the literature on human-AI interaction by demonstrating how collaborative intelligence emerges within everyday digital creative practices rather than solely within organizational or technological contexts. While previous research has frequently examined AI collaboration in workplace automation or enterprise decision-making, the present study highlights how generative AI tools are embedded in routine digital communication activities. By examining women's lived experiences as active digital creators, this research shows that human-AI collaboration involves not only technical interaction but also reflexive interpretation, cultural judgment, and identity expression. These findings extend existing discussions on human-AI collaboration by illustrating how everyday users negotiate creative authority when interacting with AI-assisted design tools in digital environments (Davenport & Mittal, 2022; Shneiderman, 2020).

Another important implication of this study concerns the role of ethical and cultural interpretation in AI-assisted creativity. Participants frequently filtered AI-generated visuals according to cultural norms, audience expectations, and personal identity considerations before deciding whether to use them in social media communication. This indicates that human-AI interaction remains embedded within broader social and cultural contexts, even when creative production is supported by automated systems. The findings also highlight how AI-assisted design platforms can contribute to digital empowerment by lowering technical barriers that previously limited participation in visual content production. As participants reported increased confidence and autonomy in producing digital visuals, Canva AI enabled broader participation in digital communication practices, particularly in areas such as educational outreach, entrepreneurial promotion, and online community engagement (Contreras-Espinosa et al., 2026; Dinger et al., 2024).

Despite these contributions, the findings of this study should be interpreted within the scope of its methodological context. The experiences explored in this research reflect the perspectives of a limited number of participants who actively use Canva AI in their everyday digital practices. While the interpretative phenomenological approach provides rich insight into lived experiences, future studies may expand this work by examining a wider range of user groups and AI-assisted creative platforms. Further research may also investigate how different cultural contexts, professional backgrounds, or levels of digital literacy influence the ways individuals negotiate human-AI collaboration in digital creative environments, particularly as generative AI technologies continue to evolve rapidly.

Limitations

Although this study provides valuable insights into women's experiences in interacting with Canva AI during visual content production, several limitations should be acknowledged. First, the study involved a relatively small number of participants, which is characteristic of interpretative phenomenological analysis but may limit the broader generalizability of the findings. The purpose of this research was to obtain in-depth understanding of participants' lived experiences rather than to produce statistically representative conclusions. Second, the participants in this study were all active users of Canva AI who had already integrated the platform into their routine digital workflows. As a result, the findings primarily reflect the perspectives of users who are relatively familiar and comfortable with AI-assisted design tools. Users with lower levels of digital literacy or limited exposure to generative AI platforms may experience human-AI interaction differently.

Third, this research focused specifically on the use of Canva AI as a generative design platform. While Canva AI represents an increasingly accessible environment for AI-assisted visual production, other generative AI tools may provide different interaction dynamics and creative affordances. Therefore, the findings should be interpreted within the particular technological and platform context examined in this study.

Finally, the study examined human–AI collaboration within the context of visual communication for social media. Although this context reflects a growing area of digital creativity, AI-assisted creative practices also occur in other domains such as professional design, digital marketing, and multimedia production. Future research may therefore explore how human–AI collaboration develops across different creative contexts and technological environments.

Implications

The findings of this study contribute to the growing body of literature on human–AI interaction by highlighting how collaborative intelligence emerges in everyday digital creative practices. While much of the existing research on generative AI focuses on organizational contexts, technological adoption, or system design, this study demonstrates how AI-assisted tools are interpreted and negotiated within personal and communicative creative activities. The results show that users maintain reflexive agency by critically evaluating AI-generated outputs and adapting them according to their communicative intentions, cultural values, and visual identity. This insight extends theoretical discussions on human-centered artificial intelligence by emphasizing that the effectiveness of generative AI systems depends not only on technological capability but also on users' interpretative engagement and contextual decision-making.

From a practical perspective, the findings suggest that AI-assisted design platforms should prioritize features that support human creativity rather than replace it. The experiences of participants indicate that users benefit most when AI tools function as collaborative partners that expand creative possibilities while allowing users to retain control over final design decisions. Design platforms such as Canva AI may therefore enhance user engagement by providing flexible editing options, transparent AI suggestions, and customization features that enable users to refine machine-generated outputs according to their communicative goals. Such design approaches can help ensure that generative AI systems support digital empowerment and creative participation while preserving users' sense of authorship and agency in digital content production.

Suggestions

Future research may further explore human–AI collaboration in a wider range of digital creative environments beyond Canva AI. Since this study focuses on women's lived experiences in AI-assisted visual production, subsequent studies could examine how different user groups, such as professional designers, educators, entrepreneurs, or novice digital creators, experience interaction with generative AI tools. Comparative studies across different generative AI platforms may also provide deeper insight into how technological affordances influence users' creative decision-making and sense of digital agency. In addition, future research may investigate how cultural contexts, digital literacy levels, and professional purposes shape the ways users interpret and refine AI-generated outputs in everyday creative practices. Such studies would contribute to a broader understanding of how collaborative intelligence evolves as generative AI technologies become increasingly embedded in digital communication and content production.

CONCLUSION

This study explored women's lived experiences in interacting with Canva AI during the process of visual content production. The findings show that Canva AI supports women's creative practices without eliminating the central role of human judgment. Participants perceived Canva AI not as a replacement for human creativity but as a technological collaborator that assists in accelerating idea generation and visual experimentation. However, the final design process still relied heavily on participants' interpretation, editing decisions, and communicative intentions. AI-generated visuals were therefore treated as preliminary materials that required further refinement before they could be used as meaningful digital communication.

The study also reveals that participants actively exercised digital agency when working with AI-assisted design tools. Participants interpreted AI-generated outputs through the lens of their personal identity, communication goals, and audience expectations. Rather than accepting AI-generated visuals as final products, participants engaged in iterative processes of evaluation, modification, and selection. In addition, the findings highlight the importance of ethical and cultural filtering in AI-assisted visual production. Participants considered factors such as cultural

appropriateness, visual identity, and platform-specific communication norms when deciding whether and how to use AI-generated content.

Finally, the results demonstrate that Canva AI contributes to users' sense of digital empowerment by lowering technical barriers to visual content production. Participants reported increased confidence, autonomy, and efficiency in creating digital communication materials. In this context, collaborative intelligence should be understood not as a process in which technology replaces human creativity, but as a partnership in which AI expands creative possibilities while human users retain interpretative authority and control over their digital expressions. These findings suggest that human-AI collaboration in creative environments continues to depend fundamentally on human judgment, contextual interpretation, and cultural awareness within contemporary digital communication ecosystems.

AKNOWLEDGMENT

The authors would like to express their sincere gratitude to the teachers and students from the participating special education schools (SLB) who generously shared their experiences and insights during the data collection process. Their valuable contributions were essential in identifying the learning challenges faced by students with intellectual disabilities and in informing the design of the School ARventure learning media. The authors also appreciate the support provided by colleagues and validators who reviewed the research instruments and offered constructive feedback throughout the research process. Their input significantly contributed to improving the clarity and rigor of this study.

AUTHOR CONTRIBUTIONS STATEMENT

SPS was responsible for conceptualization, research design, data analysis, and drafting the original manuscript. **IR** contributed to data collection, interview coordination, and initial data organization. **MA** participated in data interpretation, literature review, and manuscript editing. **LM** contributed to methodological refinement, critical review of the manuscript, and final approval of the published version. All authors read and approved the final manuscript.

REFERENCES

- Ali, I., Nguyen, K., Ali, A. M., & Cui, T. (2025). Human-AI collaboration in knowledge ecosystems: A multidisciplinary review, integrative framework and future directions. *Journal of Knowledge Management*, 1-22. <https://doi.org/10.1108/JKM-03-2025-0431>
- Amankwah-Amoah, J., Abdalla, S., Mogaji, E., Elbanna, A., & Dwivedi, Y. K. (2024). The impending disruption of creative industries by generative AI: Opportunities, challenges, and research agenda. *International Journal of Information Management*, 79, 102759. <https://doi.org/10.1016/j.ijinfomgt.2024.102759>
- Anantrasirichai, N., & Bull, D. (2022). Artificial intelligence in the creative industries: A review. *Artificial Intelligence Review*, 55(1), 589-656. <https://doi.org/10.1007/s10462-021-10039-7>
- Bansal, G., Nawal, A., Chamola, V., & Herencsar, N. (2024). Revolutionizing visuals: The role of generative AI in modern image generation. *ACM Transactions on Multimedia Computing, Communications, and Applications*, 20(11), 356:1-356:22. <https://doi.org/10.1145/3689641>
- Barisione, M., Rama, I., & Marolla, F. (2025). Between AI fear and digital agency: Technological familiarity and risk perception of generative AI's epistemic power. *Information, Communication & Society*, 1-20. <https://doi.org/10.1080/1369118X.2025.2606101>
- Bartoli, C., Nosi, C., Mattiacci, A., & Sfodera, F. (2023). Consumer self-concept in the cyberspace: How digitization has shaped the way we self-disclose to others. *Journal of Strategic Marketing*, 31(6), 1133-1154. <https://doi.org/10.1080/0965254X.2022.2056501>
- Bian, J., & Ji, Y. (2021). Research on the teaching of visual communication design based on digital technology. *Wireless Communications and Mobile Computing*, 2021, 8304861. <https://doi.org/10.1155/2021/8304861>

- Borger, J. G., Ng, A. P., Anderton, H., Ashdown, G. W., Auld, M., Blewitt, M. E., Brown, D. V., Call, M. J., Collins, P., Freytag, S., Harrison, L. C., Hespings, E., Hoysted, J., Johnston, A., McInnery, A., Tang, P., Whitehead, L., Jex, A., & Naik, S. H. (2023). Artificial intelligence takes center stage: Exploring the capabilities and implications of ChatGPT and other AI-assisted technologies in scientific research and education. *Immunology & Cell Biology*, 101(10), 923–935. <https://doi.org/10.1111/imcb.12689>
- Chakraborty, U., & Biswal, S. K. (2023). Impact of social media participation on female entrepreneurs towards their digital entrepreneurship intention and psychological empowerment. *Journal of Research in Marketing and Entrepreneurship*, 25(3), 374–392. <https://doi.org/10.1108/JRME-03-2021-0028>
- Chen, J., Xue, J., Li, Y., & Luo, W. (2025). Impact of different employee–AI interaction: Instrumental vs. emotional support and gender differences. *International Journal of Human-Computer Interaction*, 41(21), 13394–13407. <https://doi.org/10.1080/10447318.2025.2474460>
- Contreras-Espinosa, R. S., Salvador-Mata, B., Arciniega-Cáceres, M., & Scolari, C. A. (2026). From experimentation to integration: Mapping AI use across European media and communication professionals. *New Media & Society*. <https://doi.org/10.1177/14614448261416895>
- Cuthbertson, L. M., Robb, Y. A., & Blair, S. (2020). Theory and application of research principles and philosophical underpinning for a study utilising interpretative phenomenological analysis. *Radiography*, 26(2), e94–e102. <https://doi.org/10.1016/j.radi.2019.11.092>
- Davenport, T. H., & Mittal, N. (2022). How companies can prepare for the coming “AI-first” world. *Strategy & Leadership*, 51(1), 26–30. <https://doi.org/10.1108/SL-11-2022-0107>
- Dellermann, D., Lipusch, N., Ebel, P., & Leimeister, J. M. (2019). Design principles for a hybrid intelligence decision support system for business model validation. *Electronic Markets*, 29(3), 423–441. <https://doi.org/10.1007/s12525-018-0309-2>
- Dinger, B., Byun, S.-E., & Park, J. (2024). Integrating AI into curricula: Project-based learning in digital entrepreneurship. *International Journal of Fashion Design, Technology and Education*, 1–10. <https://doi.org/10.1080/17543266.2024.2438170>
- Fui-Hoon Nah, F., Zheng, R., Cai, J., Siau, K., & Chen, L. (2023). Generative AI and ChatGPT: Applications, challenges, and AI–human collaboration. *Journal of Information Technology Case and Application Research*, 25(3), 277–304. <https://doi.org/10.1080/15228053.2023.2233814>
- Herath, S., Bashardoust, A., Bole, Y., & Shrestha, Y. R. (2026). Design principles for text-to-image generative artificial intelligence creativity support tools for visual design. *European Journal of Information Systems*, 1–26. <https://doi.org/10.1080/0960085X.2026.2616042>
- Kelly, N. J., Hallam, J., & Bignell, S. (2023). Using interpretative phenomenological analysis to gain a qualitative understanding of presence in virtual reality. *Virtual Reality*, 27(2), 1173–1185. <https://doi.org/10.1007/s10055-022-00719-2>
- Li, H., Xue, T., Zhang, A., Luo, X., Kong, L., & Huang, G. (2024). The application and impact of artificial intelligence technology in graphic design: A critical interpretive synthesis. *Heliyon*, 10(21), e40037. <https://doi.org/10.1016/j.heliyon.2024.e40037>
- Liang, J. (2024). The application of artificial intelligence-assisted technology in cultural and creative product design. *Scientific Reports*, 14(1), 31069. <https://doi.org/10.1038/s41598-024-82281-2>
- Magliocca, P., Canestrino, R., Carayannis, E. G., & Gagliardi, A. R. (2024). Understanding human–technology interaction: Evolving boundaries. *European Journal of Innovation Management*, 28(5), 2006–2028. <https://doi.org/10.1108/EJIM-04-2024-0341>
- Mogaji, E., & Jain, V. (2024). How generative AI will change consumer behaviour: Implications for research and practice. *Journal of Consumer Behaviour*, 23(5), 2379–2389. <https://doi.org/10.1002/cb.2345>
- O’Driscoll, A., & Blackwell, A. F. (2025). Social norms, social AI: Investigating the effects of AI (im)politeness and gender on user perception. *BCS Human–Computer Interaction Conference Proceedings*, 590–600. <https://doi.org/10.14236/ewic/BCSHCI2025.66>
- Pathak-Shelat, M., & Bhatia, K. V. (2019). Young people as global citizens: Negotiation of youth civic participation in adult-managed online spaces. *Journal of Youth Studies*, 22(1), 87–107. <https://doi.org/10.1080/13676261.2018.1483074>

- Shneiderman, B. (2020). Human-centered artificial intelligence: Reliable, safe, and trustworthy. *International Journal of Human-Computer Interaction*, 36(6), 495–504. <https://doi.org/10.1080/10447318.2020.1741118>
- Smith, S. M., Cotterill, S. T., & Brown, H. (2020). An interpretative phenomenological analysis of performance influencing factors within the practice environment. *Journal of Physical Education and Sport*, 20(4), 1646–1657. <https://doi.org/10.7752/jpes.2020.04224>
- Tong, Q. (2024). Creativity in the digital canvas: A comprehensive analysis of art and design education pedagogy. *International Journal of Advanced Computer Science and Applications*, 15(6), 942–948. <https://doi.org/10.14569/IJACSA.2024.0150696>
- Waheed, S., Sattar, S., Bhatti, Z. I., & Naeem, M. (2022). Social media encourages women entrepreneurship: A study of challenges and empowerment. *International Journal of Media and Information Literacy*, 7(2), 596–605.
- Wessel, M., Adam, M., Benlian, A., Majchrzak, A., & Thies, F. (2025). Generative AI and its transformative value for digital platforms. *Journal of Management Information Systems*, 42(2), 346–369. <https://doi.org/10.1080/07421222.2025.2487315>
- Yang, D. (2024). Human-AI interaction in the age of large language models. *AAAI Spring Symposium Technical Report*, 3(1), 66–67. <https://doi.org/10.1609/aaaiss.v3i1.31183>
- Yu, T., Tian, Y., Chen, Y., Huang, Y., Pan, Y., & Jang, W. (2025). How ethical factors affect user trust and adoption intentions of AI-generated content tools: Evidence from a risk-trust perspective. *Systems*, 13(6). <https://doi.org/10.3390/systems13060461>