SITEKNIK
Sistem Informasi, Teknik dan Teknologi Terapan
E-ISSN: 3032-3991 P-ISSN: 3090-1626
Vol. 2. No. 2 July 2025. Pages. 206-218

Business Model for Effectiveness of Human-AI Collaboration Patterns in Digital Fiction Storytelling: A Systematic Literature Review

Daffa Shidqi Thamrin
thamrindaffashidqi@gmail.com
Information System, School of Industrial and Systems Engineering, Telkom University, Indonesia

Keywords: Human-AI collaboration, systematic literature review, storytelling fiction, human-centered design, creative writing

Submitted: 10/06/2025
Revised: 30/06/2025
Accepted: 30/06/2025

Abstract

The unavoidable pace of Artificial Intelligence (AI) is changing its role from a simple tool to a potential thought partner in various creative fields, including digital storytelling. This research discusses the effectiveness of human-AI collaboration patterns specifically in the aspect of fictional storytelling, for which creativity, narrative structure, and imagination are crucial. By a Systematic Literature Review (SLR), this research synthesizes results from published article research from 2020 to 2025, with the focus on how AI supports and co-creates with human authors throughout the storytelling process. This research also discovered and identified several benefits, which include increased creativity, idea generation, and efficiency, and also discussed challenges such as authority for storytelling, author originality, and ethical considerations in the ownership of a story. This research also discusses implications for future development and proposes a collaboration model that involves two types of human actors, which are writers and editors, and then collaborating with an AI system by a human-centered business design approach. Those results offer a framework business model for implementing practical storytelling systems by results of literature review and suggest that fictional storytelling may be an ideal and potential field for learning about AI's creative potential. The contribution of this research is the aspect of human-centered AI and provides guidelines for designing collaborative storytelling platforms that include both human and AI roles.

Corresponding Author:
Daffa Shidqi Thamrin
Information System, School of Industrial and System Engineering, Telkom University
Bandung, West Java, Indonesia
Email: thamrindaffashidqi@gmail.com

INTRODUCTION

Artificial Intelligence (AI) technology nowadays is not only used as a tool but is progressing towards becoming a discussion partner with us, where AI can help in the thinking process, but sometimes AI still has limitations to answer well (Collins et al., 2024). AI in the current era has the possibility that its use can produce perfect text, thus risking undermining the rewriting process performed by the author (Zhou & Sterman, 2024). The development of increasingly advanced AI is likely to produce content that is increasingly like humans, especially in text-generating AI (Rae, 2024).

Problems in the process of writing creative storytelling, where many writers encounter the requirement to determine story ideas that have their own distinctive value and appeal to create creative storytelling (Zhou & Sterman, 2024). Creative writers often experience obstacles when developing characters that are an important part of an interesting story, so they need tools that support the storytelling process (Qin et al., 2024). AI has great potential in creative storytelling, but it requires a direct approach and a defined feature interface for users, and the evaluation of collaborative storytelling systems requires a new approach (Yuan et al., 2022). Creative storytelling requires the writer to use their imagination to create interesting characters and a fascinating plot, which requires creativity in storytelling (Z. Li et al., 2024). Additionally, the pattern of human-AI cooperation in storytelling is still difficult to assess consistently by researchers (H. Li et al., 2024).

The process of creating creative storytelling provides obstacles, especially for novice writers who are confused about the guidelines for writing creative storytelling, even though they have an idea for a story. Therefore, this encourages researchers to create an effective strategy with AI tools that have the potential and opportunity to become a human partner as a writer in producing stories from the writer's idea, where the writer can do human-AI collaboration in writing creative storytelling. With this background, this research article seeks to answer two research questions, which are:

RQ1) What are the main issues and benefits encountered in implementing human-AI collaboration in storytelling?

RQ2) What are the research gaps found and future implications for improving human-AI collaboration in storytelling systems?

To answer these two research questions, the researcher gathered relevant references through systematic literature review (SLR). This research contributes to the field of Human-Centered AI by prioritizing humans as the main actors and offering AI tools that have the potential to become work partners for writers. This research aims to provide opportunities for writers who have storytelling ideas, but struggle to create an entire story, and provide insight into the problems and opportunities in incorporating AI tools into collaborative models, especially in storytelling.

RESEARCH METHODS

This section explains the method of this research, namely by conducting a literature study that discusses human-AI collaboration in creative storytelling co-creation, especially fictitious. This research conducted a Systematic Literature Review (SLR) approach to find out, identify, evaluate, and combine previous research on human-AI collaboration in creative digital storytelling. This method was conducted to gain knowledge and insight into collaboration patterns, problems, and future development directions. The study of literature was conducted by searching for research through scientific databases such as ACM Digital Library, Science Direct, Elsevier, Scopus, Nature, and Google Scholar. The search was conducted using a combination of keywords, namely: (“human-AI collaboration” OR “human-AI co-creation” OR “AI-assisted writing”) AND (“content creation” OR “digital storytelling”). The inclusion of research used focuses on research publications between 2020-2025 in the form of research articles, journals, and conference. The research selection process consisted of three stages: checking thandand abstract, then conducting a full text review, and also assessing the

relevance and discussion related research to produce storytelling fiction through human-AI collaboration. Overall, the research literature study aims to study and find knowledge about system opportunities that emphasize human-AI collaboration in creating creative storytelling, especially fictitious, so that it becomes the baseline for creating a creative digital storytelling system, especially because AI in the future will provide more flexibility and convenience in producing content.

RESULTS AND DISCUSSION

Benefits, Challenges, and Business Implications (RQ1)

The benefits of collaboration with AI in accelerating the ideation process and adding quality to the results based on mutual evaluation (Shaer et al., 2024), therefore, in this fictional storytelling, encouraging the use of AI to generate the initial creative story process, while the role of humans remains important in the convergence and in line with the human-centered interaction (HCI) approach. AI has great potential to drive the creative communication process (Young et al., 2024), but it cannot totally replace human credibility. Systems such as Sketchar (Ling et al., 2024), and CharacterMeet (Qin et al., 2024), illustrate how AI can incorporate to drive Non-Playable Character (NPC) creation and iterative character development, thereby opening space for more creative exploration for human authors. In addition, AI systems such as ChatGPT can also encourage pre-writing by providing suggestions regarding characterization, storyline, genre, and setting, which can be a starting point for storytelling exploration (Wan et al., 2024). These insights drive this research strategy that proposes how creative storytelling systems offer creative flexibility in generating creative and imaginative stories. In addition, it becomes a reference for storytelling systems by providing and accommodating features such as important attributes of a story such as plot, genre, topic, character, and other important attributes of a story, to provide obvious feedback to users about the drafted story.

One of the key issues and challenges in human-AI collaboration is the requirement for human validation. For example, the use of AI in MS Slide Designer explains that AI still does not know the narrative aspects thoroughly, so it still requires human monitoring (Agarwal, 2024). Through research (Z. Li et al., 2024), the study results encourage knowledge that collaboration with AI in writing can provide great flexibility but can present a major risk of reducing human participation. The phenomenon of “AI hallucination” is an important issue (Halperin & Lukin, 2024), which explains that storytelling systems using AI can have great opportunities and potential in encouraging user creativity based on unthinkable narrative cooperation but can also provide the risk of AI “hallucination”. Another study by (Borges et al., 2024), explained that the use of LLM, especially in the utilization of ChatGPT, can provide correct answers in various ways, but in that study in one session also resulted in the selection of the wrong narrative genre, so it still requires human evaluation. Creative writers who use Hallmark can easily distinguish between human and AI contributions and can adjust the level of AI assistance according to their wishes (Hoque et al., 2024).

A study on the Ghostwriter effect (Draxler et al., 2024), revealed the results of comparing the effect of AI with human writers, where text written by AI is less likely to be recognized as collaborative than text written by humans. This is a clear reference to the creative storytelling system that clearly states and recognizes AI as a human work partner in producing fictional story drafts. The study also explains that AI contributions are often excluded as true collaboration, which is different from human collaboration that emphasizes social aspects (Formosa et al., 2024). In the fictional creative storytelling system, the creativity of ideas and imagination of human writers are the main meaning that cannot be completely replaced by AI, so the proposed solution of having human editors can be more relevant. The creative storytelling system clearly states and recognizes AI as a human work partner in producing fictional stories. The use of AI tools for writers in storytelling systems aims to explore the initial part of the story (divergent phase) but requires the participation of humans as the main authority to improve the quality of storytelling by including the role of human editors in discussing and approving the results

of creative storytelling with writers. A three-actor approach of writer-AI-editor that emphasizes the idea of creativity of human writers and ensures validation by editors can be an opportunity in human-AI collaboration by prioritizing humans as the main actors, which are writers and editors, in producing creative storytelling.

Research by (Puerta-Beldarrain et al., 2025), found that AI has opened great opportunities and potential to make human-AI collaboration more active and valuable. The VISAR study demonstrates the reliability and value of rapid drafts using an argumentative framework, where the drafts provide a tangible intermediate view for the user and model to understand aspects of the writing, allowing the model to assist in the evaluation of ideas, and the identification of gaps in the system scenario (Zhang et al., 2023). MetaWriter can complete scenario tasks more quickly and provide better structural insights, but the results are more like each other than to participants without AI tools, thus questioning originality (Sun et al., 2024). Both are evidence of the reliability and flexibility of argumentative story drafting, but they have the disadvantage that argumentative storytelling requires fact-based information about something, which is different from creative storytelling systems that are imaginative, and originality is the role of editors and writers who discuss in producing stories that have their own characteristics and values. Thus, based on these studies, it is insightful to research fictional storytelling, which includes AI as a writing partner to produce potential creative storytelling based on the user's creative ideas and the editor's validation. The development of the AI assistant proposed in this research seeks to create the potential and opportunity for a new collaboration space between the three actors of writer-AI-editor to produce fictional stories that are creative, have meaning, and are also potentially ethical.

Research Gaps and Future Directions (RQ2)

Based on the study results (Yuan et al., 2022), the Wordcraft system clarifies the findings and states that the human-AI collaborative system proposes obvious features and requires a new approach in system evaluation, so it is relevant to this study which proposes a new approach by adding a new actor in the form of a human editor to validate the quality of storytelling creation. However, the system in Storybuddy does not yet fully support a user-led approach, as the UI is still designed for experts (Zhang et al., 2022). While AI can be effective in the initial ideation process (Shaer et al., 2024), there are still limitations to the use of AI that do not include a validation process, which is relevant to this research that proposes a human-AI-editor collaboration model that plays a comprehensive role in ensuring the quality of fictional storytelling.

The study on LingoComics (Panchal et al., 2024), although providing more learning flexibility and connection to real life, was limited to a storytelling evaluation that did not involve a complete user satisfaction test, and its capacity as a scientific reference was limited because it was published in the format of posters. Moreover, the user evaluation of the VideOrigami system (Cao et al., 2025), suggested that the creators remained addressed during the creation process as well as their control over the GenAI output, with participants feeling that they were more productive when the AI drove the task. However, the study only focused on video creation, so the results are not representative of other creative fields such as writing in creative storytelling systems, but it can be a strong foundation of the validation process with human editors in producing creative storytelling.

SLR by (Lee et al., 2024), confirms that despite the increase in the use of foundation models in assistant writing, dimensions related to ethics, transparency, and controllability are still poorly addressed in existing research. It is relevant to creative storytelling systems that AI is used as a tool for writers to generate initial drafts, where writers can discuss the drafts with AI as a working partner or human editors as validators who validate the final drafts of creative stories. Theories about AI Thought Partners (Collins et al., 2024), where artificial intelligence systems are created to think with humans in collaboration. The creative storytelling system emphasizes AI Thought Partners that help writers, because AI is also an actor involved in creative storytelling, but the main authority in the system

still prioritizes human agreement, namely writers and editors, to produce quality of making creative storytelling. On the other hand, there are limited regulations and cooperation strategies that can evaluate AI contributions in the human-AI writing process, which requires a new approach that formulates an engagement model that includes the intensity, quality, and type of AI contributions (He et al., 2025). The proposed creative storytelling system addresses this through the integration of the role of human editors as validators to develop story quality and address the roles of actors involved in the process of producing creative storytelling.

The differences in values and beliefs between authors varied greatly, making it difficult to determine the dominant view towards AI as a storytelling tool in the Human-AI pattern (Biermann et al., 2022). In addition, the approach of adding human editor actors is in line with research that describes the important idea of human-centered AI that makes human authority the center of control and review of the system (Capel & Brereton, 2023). The proposed storytelling system can integrate AI as a tool for writers, as well as the role of editors in evaluating creative storytelling. Studies on the CharacterMeet system provide a valuable collaborative experience (Qin et al., 2024), but it does not include ratings from expert readers or writers, which create limitations in knowing the quality of storytelling. Thus, it makes it clear that the development of a human-AI-based content evaluation system must include the role of writers and editor approval. Meanwhile, the Luminate system explains that AI-assisted writing systems should encourage a structured and clear divergent mode of exploration (Suh et al., 2024), which is in line with the creative storytelling system where users are provided with features such as storylines, character identities, relationships between characters, story genres, etc., and have AI-assisted tools generate interim drafts for writers to discuss further with human editors.

Furthermore, the creative storytelling system encourages the importance of involving writers who use AI tools as partners, where there is an equally important role in the proposed system, which is the role of the human editor as an evaluation of misinformation and story suitability, thus preventing the dominance of LLM opinions in creative storytelling results (Jakesch et al., 2023). The participation of human editors as a third party serves to validate the AI tool, as well as to accommodate the practicality of the technology, where writers working with AI tools can discuss with human editors in assessing the quality of the story drafts produced (Gero et al., 2023). The study of (Young et al., 2024), also includes the important role of transparency elements in sharing information on AI or human-generated content, without which user responses may be misinformed. This research addresses this gap by proposing a model of open collaboration in fictional storytelling, especially the involvement of human editors and writers who not only review the quality of a story but can be ethical intermediaries between AI and public acceptance of the content. This study's approach offers a new pattern of human-AI collaboration and human editors can be a solution that responds to the need to validate the quality of fictional storytelling, thus opening new business model opportunities with advanced AI.

Research Implications

Based on the literature study as well as the results and discussion of the research, a figure of research implications was produced through relevant research references. Figure 1 is an image that includes the proposed system on the creative storytelling platform, which illustrates the important implications of this research, which is to explain how human-AI collaboration can be optimized in the creative process in an ideal and composed form.

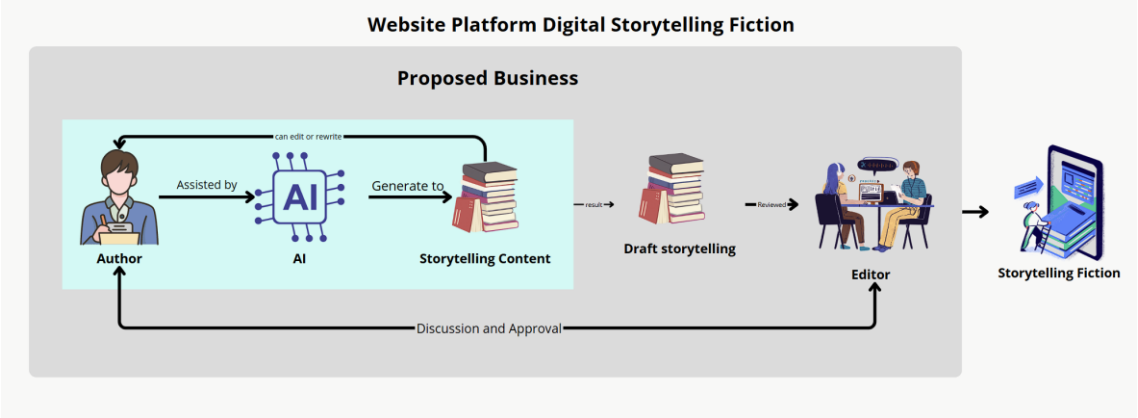

Figure 1. Digital Storytelling Fiction Website Platform Proposed

The framework includes human actors, including authors and editors, who are actively involved in generating and validating stories. The process starts when the author creates an idea through input facilitated by the website system to the AI system, which produces storytelling content that can be customized by the author in collaboration with AI as a writing tool, then the author produces storytelling content in draft form. This storytelling content is not the result, but rather a discussion material that will be edited and reviewed through interaction between the author and editor to produce creative storytelling content that has been agreed upon by both types of human actors. The AI in this system serves as a co-creative assistant as discussed by (Collins et al., 2024), which explains that AI is not a substitute for humans, but a tool to help in the flexibility of iterating ideas, exploring story structures, and proposing drafts of creative storytelling. On the other hand, the validation challenges and risks of AI hallucination as discussed by (Halperin & Lukin, 2024; Z. Li et al., 2024), emphasize the need for the presence of a third-party role, thus opening the opportunity for researchers to propose the role of editor to maintain human quality and authority. This structure of human-AI collaborative design aligns with the recommendations of studies such as (Antony & Huang, 2024; Qin et al., 2024; Suh et al., 2024), which have in common the encouragement of integration between AI-based creative exploration and human-authority.

The importance of discussion and approval between editors and writers is central to this system, as there is validation of the value and quality of the storytelling (Capel & Brereton, 2023; Jakesch et al., 2023). Through the active participation of editors after the process of producing storytelling drafts, this model responds to criticisms of the GenAI system that often produces content without obvious social value (Gero et al., 2023; Rae, 2024). The role of the editor is not only to evaluate the language style of the storytelling, but also to play a complete role in improving the quality of the narrative, the identity of the story, and the characteristics and selling points of the storytelling (Chubb et al., 2024). After the discussion and approval stage through the role of two types of human actors, the result is presented as a storytelling fiction that is ready to be published through a digital platform, which shows potential of transparent, collaborative, and responsible production flow regarding creative storytelling. Therefore, the system proposal in this research produces an information system that accommodates the role of human editors and writers, accompanied by using AI as a tool for human authors in producing storytelling fiction content through a website platform.

In the creative industry, such as advertising, the impact of using AI is also felt, because it can increase efficiency in producing work in the future by combining AI techniques, which are using AI to create storytelling to develop storyboards as a first step before creating advertisements in the advertising field and also generate images using AI

from text to image or image to image (Chaisatitkul et al., 2024). In addition, in the field of game development, many indie game developers see GenAI as a double-edged sword that not only provides promising opportunities but can also be a possible and imminent threat to make the efforts of indie game developers less sustainable (Panchanadikar & Freeman, 2024). Similarly, the issue of GenAI has entered the news sphere, where there are concerns about the individual and social impacts of the increased use of GenAI, especially issues such as misinformation, disinformation, discrimination, and promotion of social tensions (Kieslich et al., 2024).

There are three main issues of concern in the human-AI-based creative storytelling system proposed in this study, which are transparency, ethics, and ownership authority. First, the issue of ownership authority is solved through a three-actor approach, which includes human writers, AI as a working partner (Collins et al., 2024), and human editors as validators who approve and agree on the final story through discussions with human writers. This design proposes prioritizing human authority in the process of story creation and refinement, thus reducing the risk of AI Ghostwriting as discussed by (Draxler et al., 2024), where users often recognize AI-generated text as their own without acknowledging the assistance and contribution of the technology. Through the role of human editors who discuss and approve the writer's storytelling drafts, the system has the potential to ensure that the final output still reflects human authority and oversight.

Second, on the ethical aspect, this system prioritizes generating fictitious and imaginative stories, thus genuinely avoiding serious problems such as disinformation (Kieslich et al., 2024), as well as misinformation of facts (de Lima et al., 2025; Z. Li et al., 2024; Yang et al., 2025). This distinguishes from the argumentative storytelling systems done by (Z. Li et al., 2024; Yang et al., 2025; Zhang et al., 2023), which require factual information in using AI. Therefore, the focus on creative matters such as fiction makes the exploration of AI in this system more ethically safe and does not have a direct impact on the public's view of facts or reality because the focus of the field is on the entertainment industry. In addition, research by (He et al., 2025), specifically clarifying the view of authorship at a more detailed contribution level found that the level of AI assistance varies greatly depending on the type of contribution. Another study on the type of assistants using AI (Formosa et al., 2024), states that the declaration of assistance is favored when the authoring assistant is human compared to AI. Thus, the study proposed a human-AI approach by including the role of human writers and editors in generating human authority on the creative storytelling process, while recognizing the role of AI as also contributing.

Third, transparency in this system has the potential and opportunity to be built step by step through user views and the value of creative storytelling content. When storytelling resulting from human-AI collaboration gains public attention and is of high quality, information about the role of AI in the creation process can become attribution of the storytelling that has selling value. The findings of (Formosa et al., 2024), discuss that the public's view of AI's role in writing is highly dependent on the attribution aspect and the level of assistance. Therefore, this system can include transparency in the documentation of the creative process to address the audience's expectations of public acceptance. In addition, although the use of AI still has an influence on the audience's view of the creator's assurance, where the audience is more likely to judge the creator as less competent if it is known to use AI in the content creation process, because it shows a bad stigma towards the use of AI that has the potential to damage the reputation of users who use AI (Rae, 2024). However, this creative storytelling prioritizes the role of humans, namely writers and editors, in producing fictional storytelling that does not require

argumentative information or facts in creating it, so that when the final result of this creative storytelling produces content using AI as a tool in a flexible manner as done by (Cao et al., 2025; Qin et al., 2024; Sarkhoosh et al., 2024; Zhang et al., 2023), it can potentially open up new innovative spaces for responsible human-AI collaboration in producing quality, ethical, and flexible fictional creative works.

In the future, the implementation of the web-based system will be developed using React.js as a frontend framework, as done in studies (Antony & Huang, 2024; Cao et al., 2025; Chung et al., 2022; Ling et al., 2024; Sun et al., 2024; Zhang et al., 2023), which has display flexibility that encourages the storytelling process. For the backend, Python is used to manage AI API interactions such as ChatGPT, as also used in the systems in studies (Cao et al., 2025; Ling et al., 2024; Sarkhoosh et al., 2024; Wang et al., 2024; Zhang et al., 2023). This approach became the foundation in the implementation of producing a creative storytelling system that prioritizes the role of humans. After the system was developed, usability testing was conducted with two types of participants, which are writers who have an interest in creative storytelling, and editors with a background in editing creative stories, such as having experience in publishing a written work to be a professional writer in ensuring the quality of creative storytelling. The evaluation can be done with a quantitative approach through semi-structured interviews and thematic analysis of the storytelling results produced. This research design model is inspired by (Ling et al., 2024; Qin et al., 2024; Shaer et al., 2024; Sun et al., 2024; Wang et al., 2024; Yuan et al., 2022; Zhou & Sterman, 2024), which have similarities in integrating user and narrative quality evaluation in testing the effectiveness and flexibility of human-AI collaborative systems.

Evaluation of the results of usability testing can ensure the quality and authenticity of stories produced by humans based on the roles of human writers and editors, thus providing learning and insight for researchers in improving creative storytelling systems. This is based on the study findings of (He et al., 2025; Rae, 2024), that a results of the quality of content using AI that contributes and has participation can be influenced by the view of who the creator of the content is, as well as clarifying the view of writing at the level or type of AI contribution. In addition, when this system is declared successful through usability testing because it has the flexibility and efficiency of generating content, it has the opportunity and chance to open the monetization of the system as stated by (Z. Li et al., 2024). Therefore, this system is designed to mostly showcase human involvement, so this approach has the potential and opportunity to produce creative storytelling through human-AI collaboration that can be accepted by the public.

The overall implication of this research is that the future of human-AI collaboration in storytelling depends not only on the flexibility and efficiency of the system, but also on how the system is designed and built to preserve human authority, encourage creative exploration, and create a full discussion space between writers, AI, and editors. This approach provides innovation and new directions for the development of ethical, effective, and human-centered digital creative storytelling systems.

CONCLUSIONS AND SUGGESTIONS

Conclusion

The inevitable advancement of AI technology opens opportunities for the development of collaboration systems in various fields, including in the realm of creative storytelling. This research proposes a human-AI collaboration approach that focuses on fictional stories, by proposing the concept of AI Thought Partner, which makes AI act as a partner in assisting story writers in the creative process. However, the authority over the outcome of the storytelling still belongs to the human authors and editors, which are

actively discussing, reviewing, and agreeing to the result of the creative storytelling, especially fictious. This approach attempts to maintain a balance between AI and humans in maintaining the quality and ethical value of the stories produced.

To answer the first research question (RQ1), this study found insights into the main benefits of human-AI collaboration in storytelling, including efficiency, ease of exploration, and flexibility in structuring the storytelling creative, especially fictional. However, clear issues and challenges were also found in the study, especially in the aspects of originality, ethics, transparency, and the need for human validation to maintain story quality. Business implications were also generated through the opportunity and potential to develop an authoring platform that encourages creative productivity to produce explicitly fictional storytelling. In addition, the answer to the second research question (RQ2) provides insight into some research gaps, such as the lack of standardized human-AI interaction designs or approaches in editorial and creative processes, and the lack of studies on the application of collaborative systems.

The contribution of this research, where the researcher proposes a collaborative approach that includes two types of human actors, including human writers and editors in a defined work structure, with humans as decision makers, and AI as explorative and creative tools in providing images and inspiration for human writers in producing creative storytelling, especially fictitious. This design model is expected to be the initial foundation in developing a creative storytelling system based on human-AI collaboration. In the future, further implementation of this design model can be done through the integration of front-end views using frameworks such as React, and back-end systems using Python can accommodate AI processing and user data management in the system, as has been applied in previous studies in similar fields.

The focus of this approach is limited to fictional storytelling content as a conscious strategy, given that AI still runs the risk of producing misinformation when used in a fact-based setting. In other words, since fictional storytelling is not factual to begin with, AI that produces imaginative storytelling can be utilized ethically and responsibly. This strategic approach also opens the potential for innovative economic fields, such as side-job opportunities for individuals with a passion for writing, as well as productivity assistance through inclusive AI-based storytelling systems. Therefore, the results of this research are expected to contribute to gaining insights and become new leads in the development of storytelling systems that are in line with the human-centered approach. This approach also prioritizes AI not as a substitute for humans, but as a partner that encourages a more efficient creative process and potentially a more ethical creative process.

Suggestion

Based on the research results, it is suggested that the development of a human-AI collaboration system in creative storytelling is directed towards an approach that places humans as the main decision-makers in the story production process. AI in this case acts as a Thought Partner that accompanies the process of exploring ideas, developing plot and character developments, without taking over narrative authority from the author and editor. Future implementation of the system is planned to be website-based, with React.js as the frontend framework (Antony & Huang, 2024; Cao et al., 2025; Ling et al., 2024; Sun et al., 2024), which supports display flexibility for the creative writing process. The backend system will use Python to handle AI API interactions such as ChatGPT (Cao et al., 2025; Ling et al., 2024; Sarkhoosh et al., 2024; Wang et al., 2024). After the system is developed, the evaluation stage will be carried out through usability testing on two types of participants, which are fiction writers who have an interest in creative storytelling especially fictious, and role editors who have professional experience in producing creative storytelling. The evaluation process will include semi-structured interviews and thematic analysis of the quality of the resulting narrative, as conducted in previous research (Qin et al., 2024; Shaer et al., 2024; Zhou & Sterman, 2024).

In terms of theory development, this research opens the opportunity for further study of ideal interaction patterns between humans and AI in collaborative processes, especially in the realm of fictitious storytelling that demands high imagination and complex narrative structures. There is still room for exploration of how story quality, originality of ideas, as well as emotional engagement are influenced by a collaboration model involving two human actors (the author and the editor) with an AI system. In addition, issues such as content validation, ethical boundaries of authorship, and transparent division of roles between humans and AI need to be examined more deeply for this approach to be adopted more broadly and responsibly. By making the results of this research the initial foundation, the development of a storytelling system based on human-AI collaboration is expected to not only strengthen the productivity aspect but also create practices that are in line with Human-Centered AI principles as encouraged by various previous studies.

ACKNOWLEDGMENTS

The author of this article would like to thank the fellow colleagues who provided valuable feedback during the discussion. Thanks also to my family for their emotional support.

REFERENCE

Agarwal, O. (2024). MS Slide Designer: A Study on Human-AI Collaboration for Content Creation. ACM International Conference Proceeding Series, 499–503. https://doi.org/10.1145/3635636.3664259

Antony, V. N., & Huang, C.-M. (2024). ID.8: Co-Creating Visual Stories with Generative AI. ACM Transactions on Interactive Intelligent Systems, 14(3), 1–29. https://doi.org/10.1145/3672277

Biermann, O. C., Ma, N. F., & Yoon, D. (2022). From Tool to Companion: Storywriters Want AI Writers to Respect Their Personal Values and Writing Strategies. DIS 2022 - Proceedings of the 2022 ACM Designing Interactive Systems Conference: Digital Wellbeing, 1209–1227. https://doi.org/10.1145/3532106.3533506

Borges, M. G., Correa, C. M., & Silveira, M. S. (2024, December 18). Human+Human or Human+AI: A Comparative Analysis of a Narrative Visualization Design Guide. ACM International Conference Proceeding Series. https://doi.org/10.1145/3702038.3702070

Cao, Y., Huang, Y., Truong, A., Shin, H. V., & Xia, H. (2025). Compositional Structures as Substrates for Human-AI Co-creation Environment: A Design Approach and A Case Study. Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems, 1–25. https://doi.org/10.1145/3706598.3713401

Capel, T., & Brereton, M. (2023, April 19). What is Human-Centered about Human-Centered AI? A Map of the Research Landscape. Conference on Human Factors in Computing Systems - Proceedings. https://doi.org/10.1145/3544548.3580959

Chaisatitkul, A., Luangngamkhum, K., Noulpum, K., & Kerdvibulvech, C. (2024). The power of AI in marketing: enhancing efficiency and improving customer perception through AI-generated storyboards. International Journal of Information Technology (Singapore), 16(1), 137–144. https://doi.org/10.1007/s41870-023-01661-5

Chubb, J., Reed, D., & Cowling, P. (2024). Expert views about missing AI narratives: is there an AI story crisis? AI and Society, 39(3), 1107–1126. https://doi.org/10.1007/s00146-022-01548-2

Chung, J. J. Y., Kim, W., Yoo, K. M., Lee, H., Adar, E., & Chang, M. (2022, April 29). TaleBrush: Sketching Stories with Generative Pretrained Language Models. Conference on Human Factors in Computing Systems - Proceedings. https://doi.org/10.1145/3491102.3501819

Collins, K. M., Sucholutsky, I., Bhatt, U., Chandra, K., Wong, L., Lee, M., Zhang, C. E., Zhi-Xuan, T., Ho, M., Mansinghka, V., Weller, A., Tenenbaum, J. B., & Griffiths, T. L. (2024). Building machines that learn and think with people. Nature Human Behaviour, 8(10), 1851–1863. https://doi.org/10.1038/s41562-024-01991-9

de Lima, E. S., Neggers, M. M. E., Feijó, B., Casanova, M. A., & Furtado, A. L. (2025). An AI-powered approach to the semiotic reconstruction of narratives. Entertainment Computing, 52. https://doi.org/10.1016/j.entcom.2024.100810

Draxler, F., Werner, A., Lehmann, F., Hoppe, M., Schmidt, A., Buschek, D., & Welsch, R. (2024). The AI Ghostwriter Effect: When Users do not Perceive Ownership of AI-Generated Text but Self-Declare as Authors. ACM Transactions on Computer-Human Interaction, 31(2). https://doi.org/10.1145/3637875

Formosa, P., Bankins, S., Matulionyte, R., & Ghasemi, O. (2024). Can ChatGPT be an author? Generative AI creative writing assistance and perceptions of authorship, creatorship, responsibility, and disclosure. AI and Society. https://doi.org/10.1007/s00146-024-02081-0

Gero, K. I., Long, T., & Chilton, L. B. (2023, April 19). Social Dynamics of AI Support in Creative Writing. Conference on Human Factors in Computing Systems - Proceedings. https://doi.org/10.1145/3544548.3580782

Halperin, B. A., & Lukin, S. M. (2024). Artificial Dreams: Surreal Visual Storytelling as Inquiry Into AI 'Hallucination.' Proceedings of the 2024 ACM Designing Interactive Systems Conference, DIS 2024, 619–637. https://doi.org/10.1145/3643834.3660685

He, J., Houde, S., & Weisz, J. D. (2025). Which Contributions Deserve Credit? Perceptions of Attribution in Human-AI Co-Creation. Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems, 1–18. https://doi.org/10.1145/3706598.3713522

Hoque, M. N., Mashiat, T., Ghai, B., Shelton, C., Chevalier, F., Kraus, K., & Elmqvist, N. (2024, May 11). The HaLLMark Effect: Supporting Provenance and Transparent Use of Large Language Models in Writing with Interactive Visualization. Conference on Human Factors in Computing Systems - Proceedings. https://doi.org/10.1145/3613904.3641895

Jakesch, M., Bhat, A., Buschek, D., Zalmanson, L., & Naaman, M. (2023, April 19). Co-Writing with Opinionated Language Models Affects Users' Views. Conference on Human Factors in Computing Systems - Proceedings. https://doi.org/10.1145/3544548.3581196

Kieslich, K., Diakopoulos, N., & Helberger, N. (2024). Anticipating impacts: using large-scale scenario-writing to explore diverse implications of generative AI in the news environment. AI and Ethics. https://doi.org/10.1007/s43681-024-00497-4

Lee, M., Gero, K. I., Chung, J. J. Y., Shum, S. B., Raheja, V., Shen, H., Venugopalan, S., Wambsganss, T., Zhou, D., Alghamdi, E. A., August, T., Bhat, A., Choksi, M. Z., Dutta, S., Guo, J. L. C., Hoque, M. N., Kim, Y., Knight, S., Neshaei, S. P., … Siangliulue, P. (2024, May 11). A Design Space for Intelligent and Interactive Writing Assistants. Conference on Human Factors in Computing Systems - Proceedings. https://doi.org/10.1145/3613904.3642697

Li, H., Wang, Y., & Qu, H. (2024, May 11). Where Are We So Far? Understanding Data Storytelling Tools from the Perspective of Human-AI Collaboration. Conference on Human Factors in Computing Systems - Proceedings. https://doi.org/10.1145/3613904.3642726

Li, Z., Liang, C., Peng, J., & Yin, M. (2024, May 11). The Value, Benefits, and Concerns of Generative AI-Powered Assistance in Writing. Conference on Human Factors in Computing Systems - Proceedings. https://doi.org/10.1145/3613904.3642625

Ling, L., Chen, X., Wen, R., Li, T. J.-J., & LC, R. (2024). Sketchar: Supporting Character Design and Illustration Prototyping Using Generative AI. Proceedings of the ACM on Human-Computer Interaction, 8(CHI PLAY), 1–28. https://doi.org/10.1145/3677102

Panchal, D., Collins, C., & Shimabukuro, M. (2024, October 13). LingoComics: Co-Authoring Comic Style AI-Empowered Stories for Language Learning Immersion with Story Designer. UIST Adjunct 2024 - Proceedings of the 37th Annual ACM Symposium on User Interface Software and Technology. https://doi.org/10.1145/3672539.3686352

Panchanadikar, R., & Freeman, G. (2024). "I'm a Solo Developer but AI is My New Ill-Informed Co-Worker": Envisioning and Designing Generative AI to Support Indie Game Development. Proceedings of the ACM on Human-Computer Interaction, 8(CHI PLAY), 1–26. https://doi.org/10.1145/3677082

Puerta-Beldarrain, M., Gomez-Carmona, O., Sanchez-Corcuera, R., Casado-Mansilla, D., Lopez-De-Ipina, D., & Chen, L. (2025). A multifaceted vision of the Human-AI collaboration: a comprehensive review. In IEEE Access. Institute of Electrical and Electronics Engineers Inc. https://doi.org/10.1109/ACCESS.2025.3536095

Qin, H. X., Jin, S., Gao, Z., Fan, M., & Hui, P. (2024, May 11). CharacterMeet: Supporting Creative Writers' Entire Story Character Construction Processes Through Conversation with LLM-Powered Chatbot Avatars. Conference on Human Factors in Computing Systems - Proceedings. https://doi.org/10.1145/3613904.3642105

Rae, I. (2024, May 11). The Effects of Perceived AI Use On Content Perceptions. Conference on Human Factors in Computing Systems - Proceedings. https://doi.org/10.1145/3613904.3642076

Sarkhoosh, M. H., Gautam, S., Midoglu, C., Sabet, S. S., & Halvorsen, P. (2024). Multimodal AI-Based Summarization and Storytelling for Soccer on Social Media. MMSys 2024 - Proceedings of the 2024 ACM Multimedia Systems Conference, 485–491. https://doi.org/10.1145/3625468.3652197

Shaer, O., Cooper, A., Mokryn, O., Kun, A. L., & Shoshan, H. Ben. (2024, May 11). AI-Augmented Brainwriting: Investigating the use of LLMs in group ideation. Conference on Human Factors in Computing Systems - Proceedings. https://doi.org/10.1145/3613904.3642414

Suh, S., Chen, M., Min, B., Li, T. J. J., & Xia, H. (2024, May 11). Luminate: Structured Generation and Exploration of Design Space with Large Language Models for Human-AI Co-Creation. Conference on Human Factors in Computing Systems - Proceedings. https://doi.org/10.1145/3613904.3642400

Sun, L., Tao, S., Hu, J., & Dow, S. P. (2024). MetaWriter: Exploring the Potential and Perils of AI Writing Support in Scientific Peer Review. Proceedings of the ACM on Human-Computer Interaction, 8(CSCW1). https://doi.org/10.1145/3637371

Wan, Q., Hu, S., Zhang, Y., Wang, P., Wen, B., & Lu, Z. (2024). "It Felt Like Having a Second Mind": Investigating Human-AI Co-creativity in Prewriting with Large Language Models. Proceedings of the ACM on Human-Computer Interaction, 8(CSCW1). https://doi.org/10.1145/3637361

Wang, S., Menon, S., Long, T., Henderson, K., Li, D., Crowston, K., Hansen, M., Nickerson, J. V., & Chilton, L. B. (2024, May 11). ReelFramer: Human-AI Co-

Creation for News-to-Video Translation. Conference on Human Factors in Computing Systems - Proceedings. https://doi.org/10.1145/3613904.3642868

Yang, K., Raković, M., Liang, Z., Yan, L., Zeng, Z., Fan, Y., Gašević, D., & Chen, G. (2025). Modifying AI, Enhancing Essays: How Active Engagement with Generative AI Boosts Writing Quality. Proceedings of the 15th International Learning Analytics and Knowledge Conference, 568–578. https://doi.org/10.1145/3706468.3706544

Young, J., Jawara, L. M., Nguyen, D. N., Daly, B., Huh-Yoo, J., & Razi, A. (2024, May 11). The Role of AI in Peer Support for Young People: A Study of Preferences for Human- and AI-Generated Responses. Conference on Human Factors in Computing Systems - Proceedings. https://doi.org/10.1145/3613904.3642574

Yuan, A., Coenen, A., Reif, E., & Ippolito, D. (2022). Wordcraft: Story Writing With Large Language Models. International Conference on Intelligent User Interfaces, Proceedings IUI, 841–852. https://doi.org/10.1145/3490099.3511105

Zhang, Z., Gao, J., Dhaliwal, R. S., & Li, T. J. J. (2023, October 29). VISAR: A Human-AI Argumentative Writing Assistant with Visual Programming and Rapid Draft Prototyping. UIST 2023 - Proceedings of the 36th Annual ACM Symposium on User Interface Software and Technology. https://doi.org/10.1145/3586183.3606800

Zhang, Z., Xu, Y., Wang, Y., Yao, B., Ritchie, D., Wu, T., Yu, M., Wang, D., & Li, T. J. J. (2022, April 29). StoryBuddy: A Human-AI Collaborative Chatbot for Parent-Child Interactive Storytelling with Flexible Parental Involvement. Conference on Human Factors in Computing Systems - Proceedings. https://doi.org/10.1145/3491102.3517479

Zhou, D., & Sterman, S. (2024). Ai.llude: Investigating Rewriting AI-Generated Text to Support Creative Expression. ACM International Conference Proceeding Series, 241–254. https://doi.org/10.1145/3635636.3656187