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How an Author Character-based Generative AI Chatbot Can Arouse Interest in Reading: The Perspective of an Online Service?

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Abstract: In modern society, the MZ generation (Millennials and Generation Z) reads fewer paper books than in the past, as smartphone usage has become prevalent. This generation is accustomed to watching videos that present summarized information on online platforms. Consequently, they typically acquire information about books through these summaries available online. This study aims to propose the use of artificial intelligence (AI) human characters based on Generative AI to stimulate reading interest among the MZ generation. The recent advancements in Generative AI technology allow for experiences that simulate communication with real people. In addition, various services communicate with users through AI human characters that resemble real individuals. This research investigates whether providing a chatbot, based on AI human characters, with actual conversations from the author of a book can serve as a positive service for users. To explore this concept, the study developed an AI character-based chatbot representing Kim, a renowned Korean novelist, as a Generative AI. A prototype was created to facilitate discussions about the book's content with users. The research employed the System Usability Scale (SUS) test on subjects from the MZ generation using the prototype app service. The SUS test yielded a score of 79.5 points, indicating that it is usable. Furthermore, the normality of the SUS test results for each subject was assessed, confirming that the results are normally distributed, which enhances the reliability of the findings. This research aspires to contribute positively to the reading culture through digital devices and online services utilizing Generative AI.

Keywords: user experience (UX), Generative AI (Gen AI), AI chatbot, service design

1. Introduction

The use of online platforms and app services has become commonplace with the rise in popularity of smartphones. As a result, users can access information through online services anytime and anywhere. This information encompasses both text and video content. Recently, MZ (Millennials and Generation Z) users—who are more adept at using smartphones than other generations—have increasingly turned to short-form video content, such as YouTube Shorts and Instagram Reels, for information. The culture of reading physical books has gradually diminished among the MZ generation, who are accustomed to quick and clear stimulation from short videos. Consequently, the current MZ generation prefers to consume information through brief video summaries rather than traditional reading. This preference for short-form video reflects a shift away from the culture of reading paper books.

Muhibuddin et al. [1] examined the growth potential of digital-based online platforms for reading, finding it to be greater than that of traditional paper books. This trend can be attributed to the modern preference for easily and quickly accessing information via smartphones [1]. Despite the advantages of paper books, the MZ generation, which is more accustomed to using smartphones, often feels burdened by prolonged reading. As a result, they tend to prefer social networking services (SNS) or short video content that summarizes book material. Currently, the MZ generation is well-versed in engaging and informative short-form videos on SNS. Consequently, this generation significantly influences the reliability and enjoyment of information delivery methods based on summarized content [2–3]. However, while the summarized information familiar to the MZ generation is often highly reliable, it negatively impacts their ability to verify information [4]. Acquiring information through short videos that condense lengthy content can have detrimental effects on individuals. This situation makes it challenging to maintain concentration for extended periods due to the excessive release of dopamine, which conditions people to respond to brief stimuli [5]. Therefore, this research predicts that summarizing book content into short-length videos, such as those found in short-form formats, may pose challenges for MZ generation users.

To address the aforementioned problem, this research aims to explore the feasibility of a service that engages users by creating a book author character based on Generative AI. This interaction, resembling a real conversation, is expected to foster a positive user experience. This is due to the fact that the character's relevance to the content influences fandom from a narrative perspective [6]. Moreover, when a virtual persona, generated by Generative AI, interacts with a user through speech or eye contact in a specific environment, the user's perception of the service is impacted [7]. Therefore, it is anticipated that a virtual persona based on Generative AI will significantly influence both service delivery and human interaction.

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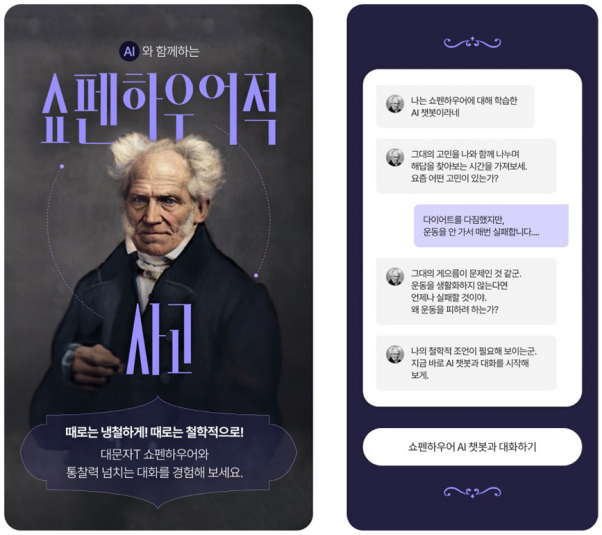
Figure 1
Example of Schopenhauer's chatbot service made with AI on Millie's library



2. Literature Review

2.1. The function of content summary though Generative AI

Generative AI is a technology that creates text and images based on learned data. This type of Generative AI can analyze original text and extract important content by utilizing advanced natural language processing models and deep learning algorithms. These technologies effectively summarize lengthy documents, enabling readers to quickly grasp key information. Additionally, artificial intelligence (AI) has been developed to provide brief summaries of content. This service allows AI to analyze the contents of videos or audio recordings and distill them into concise text summaries. Furthermore, this capability extends to summarizing long texts, such as books. Among the summary functions of Generative AI, Blinkist, a service available in Korea, specializes in summarizing the content of books. This platform distills the essential information from business and self-development literature, enabling users to quickly grasp key insights. Utilizing advanced AI technology, these services have attracted 18 million users. Additionally, Mill's Library has introduced a chatbot featuring a book author that interacts with readers. However, this service has limitations as users can only engage with the chatbot, which is represented by a profile picture of a classic character, on Messenger (Figure 1)[1].

2.2. Natural language interactive of communication through AI

From the perspective of user experience (UX) design, there is a need for a method to enhance communication between AI and stakeholders, transforming it into a human-centered experience [8]. Consequently, the concept of how AI and users can communicate naturally, akin to human conversation, is gaining prominence. AI, which facilitates two-way communication, is being utilized across various fields. This is because users can engage in real-time dialogue, creating an immersive experience similar to conversing with real people. Furthermore, AI provides tailored responses that align with users' needs and expectations through personalized feedback. Technologies like ChatGPT can be assigned specific roles, allowing users to immerse themselves in particular scenarios, thereby simulating genuine communication. This fosters a more natural interaction, resembling communication with a human.

Based on the aforementioned AI functions, Hana Bank, a prominent financial institution in Korea, has introduced an AI Human feature in its mobile applications. In the smart banking app 'Hana 1Q', the AI Human, modeled after announcer Heo, is designed to provide customized responses to users as like Figure 2[2].

2.3. Change in reading culture

Times are changing, and the methods of reading are also evolving. This behavioral shift involves examining the contents of a book through a device rather than a traditional paper format. This change is largely due to the ability of individuals to access information quickly and easily via smartphones.

Lee and Choi [9] argued that promoting GRIT (Growth, Resilience, Intrinsic motivation, Tenacity), a non-cognitive ability, in smartphone-based reading services is essential for increasing reading time among the MZ generation. Although times have changed, reading remains a vital cultural practice necessary for personal growth. Therefore, it is crucial to provide services that stimulate interest in reading for the MZ generation [9]. Pesonen et al. [10] highlighted the need to leverage the advantages of reading text on digital platforms. Emerging services and technologies aim to foster interest in reading among the MZ generation. These include services that summarize texts using AI or facilitate communication with the authors' characters [10]. Additionally, the MZ generation has expanded reading competitions into challenges through hashtags (#) on social networking sites (SNS). Thus, we are witnessing the emergence of innovative reading methods and strategies to engage interest that are suitable for the digital age. Reason: Improved clarity, vocabulary, and technical accuracy while correcting grammar and punctuation errors.

3. Approach of the Concept Service

3.1. UX design and technical status

Services based on Generative AI have emerged in various forms since 2020, facilitating bi-directional communication between users and AI. Google has experimented with interactions involving non-player characters (NPCs) in games, utilizing the capabilities of ChatGPT, a text-generating AI. This application of Generative AI simulates game characters that move automatically and autonomously, leveraging ChatGPT's functionality, which is currently a relevant topic of discussion [11]. Moreover, the limitations of chatting with AI on smart devices can be addressed through the implementation of Voice User Interfaces (VUIs).

As mentioned earlier, it is possible to communicate with individuals through AI systems that are based on Generative AI, which utilizes technology capable of mimicking human expression. An example of this interaction can be seen in the user interface (UI) depicted in the examples as below. Various services have been developed using AI-generated voices that have been trained on recordings of real human voices, including those of popular politicians and singers. Consequently, performances of songs sung by AI voices, which have been trained on the vocal styles of famous artists, have emerged on platforms like YouTube, as shown in Figure 3, which presents the results of YouTube searches for the keywords 'AI cover' and 'Music'. As noted, people often find it challenging to distinguish between a real human voice and an AI-generated voice that has undergone deep learning based on authentic human recordings. For this reason, current

[1] https://www.millie.co.kr/v3/event/104?nav_hidden=y.

[2] https://www.epnc.co.kr/news/articleView.html?idxno=226358.

Figure 2
Example of AI human characters on the services

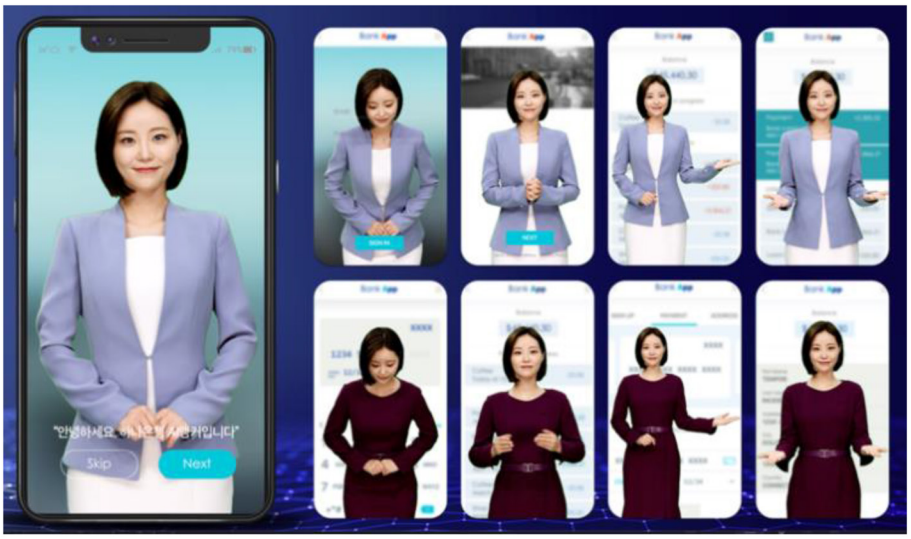
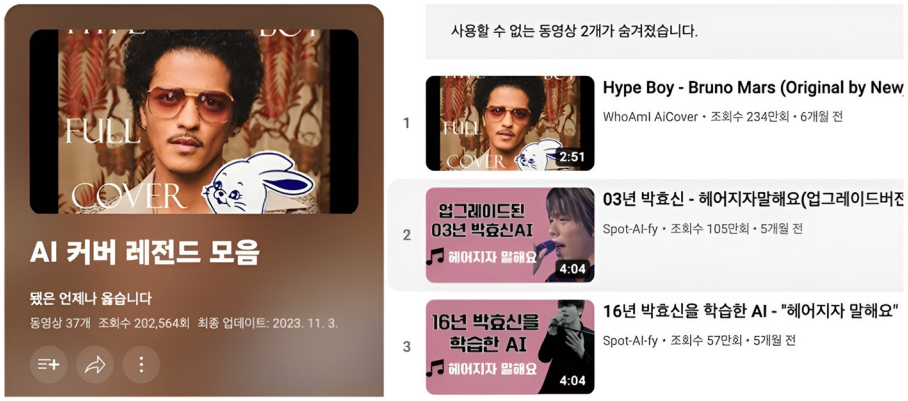


Figure 3
Example of YouTube contents that created cover music through the voice of Bruno Mars and Korean singer Park



research is focused on addressing the potential misuse of such AI voices in criminal activities [12–14].

The Generative AI can produce not only voices but also realistic human appearances. This was exemplified by the case of Donald Trump during his candidacy for the presidency from 2022 to 2024. There were instances of fake news created by generating counterfeit images of Donald Trump using Midjourney, an image-generating AI. Because these fabricated images were as vivid as real situations, they contributed to the problem of public deception [15]. The image generated by Midjourney, which became a focal point in the discussion of fake news, is shown in Figure 4, based on the results of Google searches for the keywords 'Trump', 'Fake news', and 'Generative AI'.

Furthermore, Samsung Electronics introduced a service called Neon at the CES exhibition in 2020, which features AI humans based on Generative AI that respond to human interactions and behaviors, as summarized in Figure 5, which is based on the results of Google

Figure 4
Examples of fake news images created by Midjourney

Figure 5
Example of Samsung's AI human NEON who can react like a human

searches for the keywords 'Samsung', 'CES', and 'Neon'. This concept is analogous to the example presented in Figure 2 in Section 2.3. As mentioned earlier, AI humans powered by Generative AI will be capable of mimicking real human behavior on smart devices.

Therefore, this research explores the technical feasibility of utilizing AI-generated voices that mimic real human speech, rather than adhering to a predetermined pattern typical of human conversation, for the proposed service. Furthermore, this study investigates the potential for AI avatars that can behave and respond like humans to be integrated into smart devices. Additionally, it was assessed that the use of a real person's image and voice must be conducted in a manner that complies with legal and ethical standards.

3.2. Concept statement

Previously, Figure 1 examined the messenger service that interacts with users as the author of the book through Generative AI. AI-based chatbot services positively influence knowledge exploration and educational services through conversations with users [16]. As such, chatbots can stimulate users' interest in education. However, the characters mentioned above communicate with users solely through text. AI's VUI, which embodies human-like characteristics, has positive effects on social interaction and visual appeal [17]. In the interaction between AI and humans, the gender of AI's voice significantly impacts the user experience [18]. To facilitate natural interaction between humans and AI, VUI provides comprehensive and effective insights [19]. As noted, a design in which AI's voice resembles that of a real person or reflects human characteristics will enhance the user experience. Park and Choi claims that when a renowned person appears in an advertisement on mobile, it creates a positive interaction [20]. Such a renowned person could be a factor in an interaction that affects the user experience. However, the current prior research only used a video composed of the appearance and voice of a celebrity as a component and did not focus on real-time interactions with users. Therefore, this study aims to investigate the impact of real-time conversation between the present Generative AI and users on the service based on the corresponding interaction.

For the objective above, as illustrated in Figure 2, Generative AI technology has recently been creating characters that communicate with people in a manner akin to real individuals. This study predicts that a voice resembling that of a real person will positively affect the user experience and enhance user engagement with services. Based on the information presented above, this research aims to implement an AI chatbot that utilizes deep learning to replicate the appearance and voice of a real author. This concept design seeks to develop a chatbot service, as illustrated in Figure 1, similar to that shown in Figure 2. The AI human characters within this service will be capable of communicating with users via text chat and will also feature a VUI for voice interactions. The chatbot will summarize the contents of the author's books and respond to readers' inquiries. This approach is particularly relevant for the MZ generation, who are accustomed to consuming content on digital devices and prefer concise summaries. Furthermore, it is anticipated that the MZ generation, which is familiar with obtaining information through conversations with AI-based chatbots, will find AI character-based chatbots—modeled after the author's persona—accessible and engaging [21–23]. Additionally, events where a specific celebrity or customer interacts with individuals seeking to connect, such as fan meetings, have been shown to positively influence users' intentions to reuse the service and their overall satisfaction [24]. Therefore, to conduct research focused on Korean users, this study will develop a chatbot based on AI human characters inspired by a renowned author in Korea.

3.3. Pre-survey

This research conducts a preliminary survey to assess the nature of interactions between the author and the readers of the book, with a specific focus on whether these interactions are positive. This examination is essential due to the lack of existing research on this topic. Consequently, the study targets the MZ generation, particularly individuals who have read the book more than once within the past six months. Participants include those who have read the book directly, as well as all categories of users who have accessed and reviewed the book's summary. This approach acknowledges the trend of declining reading frequency and the increasing tendency to engage with book content through video formats, such as Reels. The pre-survey was conducted with 75 participants from the fourth week of August to the first week of September 2024, specifically targeting 40 young individuals in their 20s and 30s. The survey was administered after confirming that the subjects met the specified criteria among those recruited both online and offline. The contents and results of the preliminary survey are presented in Table 1.

A majority of respondents, 88%, expressed interest in reading the summary that analyzed the positive feedback regarding the reading summary service. Additionally, 60% of respondents indicated a preference for paper books as their primary reading method, while 40% preferred e-books. When asked about the possibility of conversing with the author, 91.7% of respondents stated that such an interaction would increase their interest in reading. In the short answer responses, many participants noted that engaging in conversation with the author would enhance their reading experience and provide new insights into the author's intentions.

Table 1
Result of pre-survey (n = 75)

Factor	Questions	Answer
(1) Reading summary	Are you interested in reading the summarized book? (yes, no)	Yes (88%), No (12%)
(2) Method of reading	What are the ways you use it when you read? (Paper book, e-book)	Paper books (60%), E-books (40%)
(3) Conversation with the Author	If you talk to a writer while reading a book, do you think you'll get interested?	Yes (91.7%), No (8.3%)
(short answer question)	Please feel free to talk about your thoughts whether your experience of conversation with the author will lead to interest in reading.	– It would be nice to know the author's interpretation. – I think it will help me understand the meaning of the book through in-depth conversation. – I think it will be a positive experience because I can talk to the writer directly.

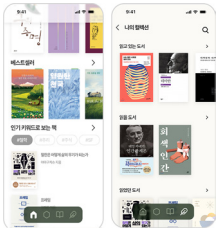
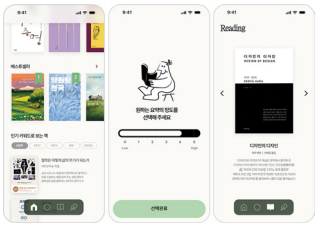
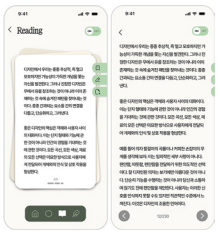
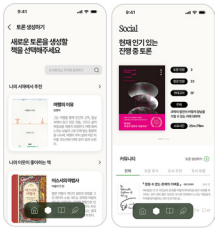
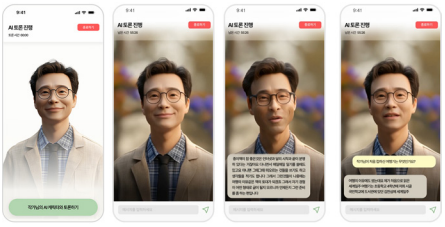
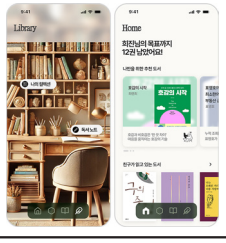
3.4. Design for concept service

On the main page of this service, we provide an interface that allows users to select recommended books based on their reading achievement levels. The platform features a function for reading and selecting summarized versions of books, and it includes a UI that facilitates discussions with Generative AI writers. The conceptual framework of the service is built around the process of engaging with AI writers after the user assesses their reading achievement level, selects a recommended book, reads the corresponding summary, and then participates in a discussion with the AI writer. Additionally, a feature for managing reading records has been implemented, enabling users to review books they have read in the past on the 'My Study' page. This functionality plays a crucial role in enhancing the user's reading experience and supporting the ongoing management of their reading activities.

This research implemented a character-based chatbot featuring the Generative AI of Young-ha Kim, a renowned novelist and broadcaster known for his numerous bestsellers. The study aimed to enhance the immersion of a scenario in which the AI interacts with an actual writer. An AI-generated human character was created using Midjourney, an AI service that generates images. This study sought to produce a consistent AI human character by utilizing the '--cref' prompt. The user scenario, in which the AI character, author Kim, communicates with the user, was constructed using video and text-to-speech (TTS) Generative AI. The video scenes were generated by 'Runway' and 'D-ID.' Runway is a service that transforms images into motion, while D-ID synchronizes voice with the movements of a person's mouth in an image based on an audio file. Additionally, the voice of author Kim was generated by Voli, an AI service that creates TTS using deep learning based on real human voice data.

For the examination, the concept of UI design was developed as a prototype using video. This approach was chosen because the evaluation results of the research material indicated that the prototype video yielded similar outcomes to those obtained with the actual application [23]. The concept of the UI design is outlined below: (1) The user discovers recommended books. (2) The user reviews the contents of the summarized book. (3) The user reads the summarized content of the book. (4) The user is prompted to share their thoughts or questions about the book. (5) The user interacts with an AI character representing the author. (6) The user saves the book they wish to record on their My Page. The prototype summary in Table 2 was configured for online access to facilitate testing. As described above, in scenario

Table 2
The concept UI design and user scenario

Scenario	UI design
#1 Recommended book delivery page	
#2 Select and summarize the desired book	
#3 Reading the summarized contents	
#4 Record your thoughts and inquiries	
#5 Talk with AI chatbot to solve questions	
#6 Save the conversation to my page	

#5, a video of a conversation with an AI chatbot is presented. In this scenario, the user can hear text-to-speech (TTS) generated audio that closely resembles the actual voice of author Kim. Reason: Improved clarity, readability, and technical accuracy while correcting grammatical and punctuation errors.

This research designed a UI concept and a prototype based on the technical implementation of Generative AI, as presented in Section 3.1. The aim was to explore the feasibility of a service utilizing Generative AI technology, even though it was not directly implemented. Consequently, the Generative AI technology available as of 2024 was employed for this concept (Table 2). Author Kim's voice was generated using the service 'VOLI,' which creates voice outputs based on a video or audio file containing a person's actual voice. Additionally, Author Kim's appearance was generated using Midjourney, based on 34 images uploaded online. This study aimed to create a consistent representation of Author Kim. Using the generated image of Author Kim from Midjourney, the tools Runway and Cling were utilized to reproduce Author Kim's appearance in the video. Thus, this research sought to produce a video clip for the UI concept and prototype, simulating a video call experience on a smartphone with AI humans that resemble real people, as illustrated in Figure 1 and Figure 5. As described, since the current Generative AI technology is fragmented, the examination presupposed the potential for utilizing Generative AI as a service.

4. Analysis

4.1. Process of examination

This research conducts a System Usability Scale (SUS) test to evaluate the usability of the service presented in Table 2. The SUS is a quick and reliable tool for measuring usability, consisting of 10 items rated on a 5-point scale. It is primarily used to assess the feasibility of the service prior to the launch of the website and the accompanying smartphone application. Given that the conceptual design outlined in this research is an app-based service, the SUS test is deemed appropriate. Additionally, open-ended questions were included to explore factors or environments that may influence the quantitative analysis. The details of the survey can be found in Table 3.

Table 3
The contents of SUS test

Num	Questions
1	I think that I would like to use this system frequently.
2	I found the system unnecessarily complex.
3	I thought the system was easy to use.
4	I think that I would need the support of a technical person to be able to use this system.
5	I found the various functions in this system were well integrated.
6	I thought there was too much inconsistency in this system.
7	I would imagine that most people would learn to use this system very quickly.
8	I found the system very cumbersome to use.
9	I felt very confident using the system.
10	I needed to learn a lot of things before I could get going with this system.
Short answer questions	Please feel free to describe the factors or environment that influenced the above evaluation.

Table 4
Result of SUS and normality test (n = 75)

M	Test of normality					
79.56	Shapiro–Wilk			Anderson–Darling		
	Statistic	df	Sig(p)	Statistic	df	Sig(p)
	0.086***	75	0.000	3.643***	75	0.000

***$p < 0.001$, **$p < 0.01$, *$p < 0.05$.

4.2. Result of SUS test

The survey was conducted from August 29 to September 6, 2024, using Google Forms and included a total of 72 participants. The research focused on young individuals in their 20s and 30s who have a strong interest in reading. According to the results, the SUS is considered usable when the average score is 75 points or higher. The usability test evaluation presented in Table 2, which outlines the concept design, yielded an average score of 79.56. Therefore, it can be concluded that the concept service developed in this study is both effective and valuable.

Furthermore, the results from the participants in the SUS test survey were found to follow a normal distribution. This assessment was conducted to evaluate the reliability of the participants' results. To achieve this, a normality test was performed using the Shapiro–Wilk test, which is effective for small sample sizes, as well as the Anderson–Darling test to assess the distribution of the sample. The results of the normality tests indicated that the p-value (Sig) for each participant's SUS test result was lower than the significance level of 0.05. Therefore, the research findings were deemed reliable and consistent with a normal distribution. The result of SUS test appears in Table 4.

4.3. Short answer summary

In order to examine the causes or factors that affect the results of the quantitative investigation identified through the SUS test, the answers to formal questions are classified and analyzed. The responses to the subjective questions collected from the aforementioned research were categorized into common themes and organized.

First, convenience was a key factor. The subjects evaluated the usability positively, noting that they could quickly grasp the necessary information. Additionally, many respondents indicated that the simplicity of the UI enhanced the overall convenience of the service. Consequently, it was noted that users could intuitively understand the functions without the need for separate training. Furthermore, some participants expressed the opinion that the emotional theme of the UI appeared to reduce feelings of rejection. The classification about opinion of subjects was conducted with the methodology of open coding that derives meaning from common opinions. Short answer and personal information were discarded and managed after the experiment. The classification of the summarized opinions is as below.

> *"Neat and emotional themes reduce your reluctance to talk to AI." — P36*

> *"I believe it's easy to access, even if I don't read well. It's beneficial to begin with an open heart." — P48*

> *"Even when I first access the service, AI suggests a variety of tasks and promptly connects me to the desired service, making it convenient for me to utilize the new functionality." — P64*

Second, it involves reading discussions and fostering interest. Many readers expressed that they found the experience engaging, as it allowed for in-depth discussions with the author. There are often instances where the author's intentions are unclear or misinterpreted

during reading, and it was noted that the book could be approached from a fresh perspective. In particular, some readers believed that communication with the author, beyond mere reading, would enhance both immersion and interest in the material.

> *"Discussions with people can be burdensome, but discussions with AI make it easier to share thoughts." — P16*

> *"I believe it is not only enjoyable to read, but also to generate new ideas through discussions." — P42*

> *"I would like to engage in a conversation with my favorite writer regarding his intentions and other related topics. This service promises to be a wonderful experience." — P69*

Third, the utility of time management is significant. This was highlighted as a perspective on optimizing time spent on summary and recommendation functions. In addition to discussions with the author, the ability to select the desired level of detail in book recommendations and summaries enhances the appeal of reading for individuals who tend to shy away from lengthy articles. Many expressed that a concise summary allows for a quick understanding of the book's core content, thereby alleviating the reading burden.

> *"It was convenient to see what kind of books people read and recommend personalized books." — P3*

> *"It was nice to have a discussion with the author, but also to decide how much to summarize the book, so I could read it without any pressure." — P59*

> *"When I didn't have enough time, I could see the summary concisely, so I could understand the contents." — P67*

Lastly, this presents an opportunity for enhancement and supplementation. Throughout the development of AI, concerns have been raised about the limitations of the technology, particularly regarding its potential to misrepresent the artist's thoughts or intentions. Additionally, it was noted that if discussions are conducted solely based on a summarized book, there is a risk of developing a biased perspective due to the limited content.

> *"There are concerns about whether AI can summarize all the in-depth content, and it is necessary to supplement whether emotional empathy will be achieved when talking to a fictional writer." — P8*

> *"I am worried that all the thoughts and intentions of the artist can be implemented with AI, and I am worried that it will have a bad effect on the creation." — P21*

> *"If you only understand the book in summary, you will have too biased a view." — P55*

4.4. Comparative analysis of scenarios for Generative AI utilization

This study aims to explore the potential of AI-based services within the conceptual framework outlined in Table 1 through further investigation. The objective is to analyze the differences in interaction methods between users and AI in services that utilize Generative AI. To achieve this, the research compares and analyzes the service case presented in Figure 1, which features the author's character implemented through Generative AI, with the AI-human scenario #5 in Table 1. The character depicted in Figure 1 represents an AI human based on ChatGPT, trained on the author's thoughts and book content during chat interactions. In contrast, scenario 5 from Table 1 describes a communication method with an AI human that incorporates the author's appearance, voice, thoughts, and book content through both chat and VUI. Therefore, this study conducts additional research to examine how the multimodal character and communication methods—enhanced by voice and video Generative AI technology—differ from traditional chat-based communication on smartphones. Reason: Improved clarity, vocabulary, and technical accuracy while maintaining the original meaning.

The research compared and analyzed the task process, which involves accessing the application and interacting with the AI, as outlined in Table 5. Four factors were identified from previous studies that established the correlation between AI and UX design. These factors are usability, convenience, enjoyment, and intentions to reuse [24]. The survey questions are summarized in Table 6.

The aforementioned factor played a crucial role in assessing the interaction between AI and the user's service perspective and communication process in previous studies. Four factors were evaluated using a 5-point Likert scale to analyze the interaction between AI and the user from both the service perspective and the communication process in earlier research. A comparative analysis of the two scenarios presented in Table 5 was conducted by comparing the average values for the evaluation of these four factors. To this end, a t-test was performed to determine whether there was a significant difference between the average values of the two factors.

The research was conducted with 54 members of the MZ generation, who are more familiar with AI and conversational technologies than other generations, from March 13 to 18, 2025. Participants were instructed to view the case video presented in Table 5, which was uploaded to Google Forms, and then engage with it. The results of the T-test are summarized in Table 7. The findings indicate that the scenario of Case B, which serves as the conceptual design for this experiment, received positive evaluations across all factors. In the assessment of the research materials, the average score for Case B was higher than that for Case A. Furthermore, since the p-values for all evaluation factors are below the significance threshold of 0.05, the

Table 5
The cases of Gen AI concept scenario about communication between user and AI

Case A [Figure 1]	Case B [Table 2]
	

Table 6
The questions for comparative analysis

Factors	Questions
Usability	Do you think it's the way to accommodate the task process of checking reading information?
Convenience	Do you think the conversation method is convenient in this app service?
Pleasure	Did the task process create a fun experience?
Reuse intentions	Do you want to use this app service once again?

difference between Case A and Case B can be considered statistically significant. Therefore, it can be concluded that utilizing technology to interact with the author's character, including VUIs and chat features as part of a multimodal approach to books created through Generative AI, represents a promising strategy for enhancing user experience and service design. Consequently, it is anticipated that the technology of Generative AI will contribute to the promotion of a reading culture, provided that it is implemented in a fragmented and more realistic manner by integrating various technologies, rather than merely producing content in a human-like fashion.

5. Conclusion

5.1. Discussion

This research proposes a service designed to promote a reading culture through the use of Generative AI characters inspired by well-known authors. The concept aims to enhance interest in reading by utilizing a chatbot that embodies the human-like characteristics of a famous author. The proposed service features a UI that allows the Generative AI writer to interact with users, along with various services and user scenarios that facilitate this interaction.

The test was conducted to evaluate the degree of summarization in a mobile app service and to create a UI that allows users to interact with an AI author character after reading a book summary. The examination included a total of six user scenarios and UI designs to assess the effectiveness of the reading summary and discussion features that utilize the AI writer. Additionally, an SUS test was administered, yielding a score of 79.5 points, which indicates that the application is usable. Furthermore, the normality of the SUS scores for each participant was analyzed. Since the results were normally distributed, the findings of this research can be considered reliable.

Table 7
Result of T-test (n = 54)

Factors	Case	M	SD	F	Sig(p)
Usability	A	4.01	0.963	0.378**	0.001
	B	4.54	0.364		
Convenience	A	3.70	1.329	0.404**	0.001
	B	4.38	0.537		
Pleasure	A	3.86	1.039	0.565**	0.001
	B	4.47	0.587		
Reuse intentions	A	3.11	0.230	0.279***	0.000
	B	4.34	0.825		

***p < 0.001, **p < 0.01, *p < 0.05.

In addition, a qualitative analysis was conducted through short-answer responses. The analysis revealed several key findings, including ease of usability, the ability to stimulate interest through reading discussions, and the positive effects of summary and recommendation functions. However, it also identified negative factors, such as the need for improved reliability, technical limitations, and the lack of emotional communication in the information provided by AI. The significance of this study lies in its potential to enhance interest in reading through innovative services that utilize Generative AI, particularly in a modern society where reading culture is evolving. Based on the findings, this study proposes a method for fostering interest in reading that is suitable for the current era, which involves engaging with an AI chatbot that embodies the author's character. Moon et al. suggested the potential for studying through fan fiction featuring idols and celebrities. It is believed that this method of interacting with a specific individual of interest can positively influence reading, similar to an educational approach. Therefore, it is anticipated that services incorporating characters that communicate and respond like real people in real-time through Generative AI will provide a positive educational experience.

In conclusion, this research aims to foster a positive reading culture through the use of digital devices and online services that leverage Generative AI. It presents a framework for AI–human interaction that can be integrated into service design from a UX perspective by synthesizing various fragmented Generative AI technologies. Given that this initiative involves a celebrity AI persona, specifically the author Kim, and is set to be implemented through accessible Generative AI technology by 2024, it holds significant potential to evolve into a viable service. This research approach is designed to contribute to non-technical design research as a service and to provide innovative problem-solving solutions utilizing Generative AI. The interplay between art, technology, and design encourages mutual influence and development. Therefore, the significance of this study lies in its proposal to enhance reading culture through Generative AI, evaluating the feasibility of AI services from a UX design perspective, and outlining a research plan that implements AI personas based on existing technologies. Without the use of tools, technology loses its significance. Consequently, the findings of this research will contribute to expanding the ways in which AI technology can be harnessed as a constructive tool.

5.2. Limitation and future research

In this research, direct interaction and conversation with the AI author character were not conducted; instead, the evaluation was limited to indirect experiences through the UI. Additionally, this research has the limit, because of design study through the lack of live system implementation, about the reliance on concept videos and non-functional prototypes limits the methodological depth. As above, AI technology employed was not fully implemented, variables that may arise in a real user environment were not considered. Consequently, this study will pursue additional research to enhance scenario-oriented experiences and evaluations, including interactions with actual AI writers to better accommodate a more diverse user base. 'In addition, a method to consider social ethical issues that may occur in an interaction in which a famous person's AI chatbot or a virtual person communicates with the user is added to proceed with further research. Through this, we intend to investigate the possibility of using deep learning of AI that can be applied in practice.'

Ethical Statement

This study does not involve any animal subjects. However, this study employed a 5-point Likert scale survey and short-answer ques-

tions involving human participants. The participants, identified as Generation Z, were not requested sensitive personally identifiable information beyond general data such as experiences about reading book and using generative AI, and age group — 20s to 30s —. Additionally, the survey was administered online in a non-face-to-face format. Therefore, the authors declare that there are no ethical concerns related to the collection of sensitive personal information in this study.

Conflicts of Interest

The authors declare that they have no conflicts of interest to this work.

Data Availability Statement

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

Author Contribution Statement

Eunwoo Choi: Writing – original draft, Writing – review & editing, Investigation, Supervision. **Gahyeon Kim:** Visualization, Investigation. **Gyeongmi Kim:** Visualization, Investigation, Writing – review & editing. **Dabin Choe:** Visualization, Investigation, Writing – review & editing. **Soonkyu Jang:** Conceptualization, Methodology, Validation, Formal analysis, Project administration.

References

[1] Muhibuddin, F. W., Nurhayati, P., & Rahman, M. S. (2021). User experience analysis of smart phone users in exploring and reading nonfiction books. *Business Review and Case Studies*, *2*(1), 49–49. https://doi.org/10.17358/brcs.2.1.49

[2] Lizunova, I. V., van der Weel, A., Garcia-Febo, L., & Pshenichnaya, E. V. (2022). Reading on paper and screens: Advantages, disadvantages, and digital divide. *Annals of Library and Information Studies*, *69*(1), 34–43.

[3] Shi, H., Koh, J., & Park, S. (2023). Factors influencing users' payment decisions regarding knowledge products on the short-form video platform: A case of knowledge-sharing on TikTok. *Knowledge Management Research*, *24*(1), 31–49. https://doi.org/10.15813/kmr.2023.24.1.002

[4] Yang, Y., An, J., & Kim, W. (2024). The effects of the characteristics of travel content in short-form video on trust, commitment, satisfaction and continuous usage intention. *The Journal of Internet Electronic Commerce Research*, *24*(5), 123–141. https://doi.org/10.37272/JIECR.2024.10.24.5.123

[5] Swart, E. K., & Sikkema-de Jong, M. T. (2023). The effects of increased dopamine-levels on attentional control during reading and reading comprehension. *Current Psychology*, *42*(13), 11009–11025. https://doi.org/10.1007/s12144-021-02363-6

[6] Kang, B. N. (2024). Capturing differences in character representations between communities: An initial study with fandom. *arXiv Preprint:2409.11170*. https://doi.org/10.48550/arXiv.2409.11170

[7] Jang, S., Kim, G., Kim, G., Kim, S., & Park, J. (2024). Exploration of the prevention crime on the unstaffed stores based on utilization of characters from generative AI. *Journal of Communication Design*, *88*, 217–229. https://doi.org/10.25111/jcd.2024.88.15

[8] Feng, K. K., Coppock, M. J., & McDonald, D. W. (2023). How do UX practitioners communicate AI as a design material? Artifacts, conceptions, and propositions. In *Proceedings of the 2023 ACM Designing Interactive Systems Conference*, 2263–2280. https://doi.org/10.1145/3563657.3596101

[9] Lee, J., & Choi, S. (2020). Mediating effects of grit on the relationship between smartphone usage time and reading time. *Journal of Learner-Centered Curriculum and Instruction*, *20*(7), 1009–1035. https://doi.org/10.22251/jlcci.2020.20.7.1009

[10] Pesonen, E., Jumisko-Pyykkö, S., & Väätäjä, H. (2015). User experience of digital news: Two semi-long term field studies. In *Proceedings of the 14th International Conference on Mobile and Ubiquitous Multimedia*, 51–63. https://doi.org/10.1145/2836041.2836046

[11] Park, J. S., O'Brien, J., Cai, C. J., Morris, M. R., Liang, P., & Bernstein, M. S. (2023). Generative agents: Interactive simulacra of human behavior. In *Proceedings of the 36th Annual ACM Symposium on User Interface Software and Technology*, 1–22. https://doi.org/10.1145/3586183.3606763

[12] Lee, K., & Park, S. (2024). Study on criminal legislative response to generative AI cover songs. *Journal of Legislation Studies*, *21*(2), 59–84. https://doi.org/10.31536/jols.2024.21.2.003

[13] Chung, T. J. (2024). An analysis of overseas cases of cyber threats using AI. *Convergence Security Journal*, *24*(5), 123–136. https://doi.org/10.33778/kcsa.2024.24.5.123

[14] Hong, K. (2024). Research trends on threats and countermeasures to DeepFake voices. *Journal of the Korea Institute of Information Security & Cryptology*, *34*(6), 1567–1577. https://doi.org/10.13089/JKIISC.2024.34.6.1567

[15] Chang, H. C. H., Shaman, B., Chen, Y. C., Zha, M., Noh, S., Wei, C., ... & Magee, M. (2024). Generative memesis: AI mediates political memes in the 2024 USA presidential election. *arXiv Preprint:2411.00934*. https://doi.org/10.48550/arXiv.2411.00934

[16] Park, J., Nam, Y., & Chai, S. (2023). A study of faculty's perceptions on the educational use of AI chatbots: Focusing on K University. *Culture and Convergence*, *45*(10), 231–242. https://doi.org/10.33645/cnc.2023.10.45.10.231

[17] Zhai, X. (2022). ChatGPT user experience: Implications for education. *SSRN*. https://dx.doi.org/10.2139/ssrn.4312418

[18] Shin, J. G., Kang, J. M., Park, Y. J., & Kim, S. H. (2022). Moderating effects of user gender and AI voice on the emotional satisfaction of users when interacting with a voice user interface. *Science of Emotion and Sensibility*, *25*(3), 127–134. https://doi.org/10.14695/KJSOS.2022.25.3.127

[19] Park, Y. R., & Choi, S. M. (2025). The use of AI in mobile interactive advertising: The impact of interactivity and celebrity models' social presence on engagement and advertising effectiveness. *Journal of Digital Contents Society*, *26*(2), 547–558. https://doi.org/10.9728/dcs.2025.26.2.547

[20] Deshmukh, A. M., & Chalmeta, R. (2024). User experience and usability of voice user interfaces: A systematic literature review. *Information*, *15*(9), 579. https://doi.org/10.3390/info15090579

[21] Jeong, Y., & Ma, D. (2023). Development of education program using AI chatbot in elementary social studies classes. *Journal of the Korean Association of information Education*, *27*(6), 645–654. http://dx.doi.org/10.14352/jkaie.2023.27.6.645

[22] Choi, S. W., & Nam, J. H. (2019). The use of AI chatbot as an assistant tool for SW education. *Journal of the Korea Institute*

of Information and Communication Engineering, *23*(12), 1693–1699. https://doi.org/10.6109/jkiice.2019.23.12.1693

[23] Woods, S., Walters, M., Koay, K. L., & Dautenhahn, K. (2006). Comparing human robot interaction scenarios using live and video based methods: Towards a novel methodological approach. In *9th IEEE International Workshop on Advanced Motion Control*, 750–755. https://doi.org/10.1109/AMC.2006.1631754

[24] Moon, J., Lee, M., & Hur, J. (2021). Exploring the methods to utilize fan fiction for Korean language learners based on K-Wave. *Journal of Korean Language Education*, *32*(1), 109–129. http://dx.doi.org/10.18209/iakle.2021.32.1.109

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