

# Navigating Virtual Bonds: Human-AI Friendship Dynamics through the Lens of Uncertainty Reduction Theory

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## **Abstract**

*This research examines the dynamics of human interaction with artificial intelligence chatbots, such as ChatGPT and character.ai. Using a qualitative approach through a single case study, in-depth interviews with two informants were conducted, with data analyzed through pattern matching based on uncertainty reduction theory axioms. The findings reveal that increased communication can reduce uncertainty and skepticism towards AI through increased verbal communication and information seeking, although the unique nature of AI presents challenges for URT application. Additionally, a shift in emotional support-seeking from humans to AI was observed, hinting at a potential societal transformation where AI could begin to substitute traditional human roles. This research contributes to the understanding of the evolving relationship between humans and AI, specifically how individuals assign social roles to AI. Furthermore, it adds to the expanding body of literature that conceptualizes AI not merely as a medium, but as an active communicator.*

Keywords: Artificial Intelligence, ChatGPT, Uncertainty Reduction Theory, Character.ai

## **INTRODUCTION**

A transformative era is imminent due to advances in artificial intelligence (AI) (Zanzotto, 2019). AI is described as giving life to machines capable of carrying out various valuable tasks, ultimately freeing humans from the burden of daily and repetitive activities. As AI becomes increasingly embedded into daily life, understanding its impact on human interactions is crucial. This study aims to examine the dynamics of human interaction with AI chatbots like ChatGPT and character.ai, focusing on how individuals manage their expectations and reduce uncertainty when engaging with these technologies. The research seeks to explore the ways in which individuals reduce uncertainty and skepticism towards AI through verbal communication and information-seeking behaviors. Furthermore, the study aims to understand how the role of AI chatbots as communicators influences the potential shift in seeking emotional support from humans to AI.

AI-related phenomena can be found in various aspects of human life, starting from robots that handle household chores, chatbots that enhance the capabilities of smartphones for daily tasks, AI that contributes to medical diagnosis, and the presence of AI as a partner or friend for humans. The phenomenon of AI appearing as a friend to humans is not

uncommon. For instance, this was evident in the experiences of Rosanna and Eren and the case of Peter and Andrea. Rosanna Ramos and Eren got married in March 2023 (Noyen, 2023). Many people discussed this couple's marriage because Eren, Rosanna's virtual partner, is not a real person; he is an artificial intelligence creation. Rosanna utilized the Replika chatbot to create Eren, enhancing his presence with additional AI technologies like augmented reality. Rosanna modeled Eren's appearance after her favorite anime Attack on Titan character. The marriage between humans and AI is not the first one. In January of the same year, Peter, a war veteran, tied the knot with his partner, Andrea (Pedler, 2023). Like Rosanna, Peter used the Replika chatbot program to 'make' Andrea. Replika is an AI chatbot developed by Luka, Inc. Chatbots serve as conversation partners for users, offering a unique experience characterized by judgment-free interactions and can support users emotionally (Replika, n.d.). As AI technology develops, humans increasingly encounter the phenomenon of forming relationships with machines.

ChatGPT is an artificial intelligence chatbot created by OpenAI, operating based on a large language model (OpenAI, 2023). Utilizing natural language processing, ChatGPT is said to excel at generating human-like conversational dialogue. One of ChatGPT's special features is that users can adjust and control conversations to match their preferences, like how long the response is, the format, the style, the amount of detail, and even the language used. Character.ai is a platform that uses neural language models to analyze extensive text data and generate responses based on user requests (Luna, 2023). The site allows individuals to create characters, either fictional or inspired by actual figures. Users can engage in one-on-one conversations with characters or set up group chats involving multiple characters conversing simultaneously with each other and the user. Google Trends data (Google, 2023) shows that there has been a significant increase in searches for AI-related terms in Indonesia. Google Trends data for Indonesia shows a significant increase in interest in AI-related search queries, especially for 'character ai' and 'chatgpt'. Both terms are marked with the 'Breakout' label, meaning substantial growth exceeds 5,000%. These two terms also occupy the top two positions in the search rankings that get the most spikes. The term 'chat gpt' (with a spelling difference from 'chatgpt') took the third position, showing a growth of 4,800%. The notable surge in AI-related searches could suggest heightened curiosity, potentially fueled by recent news, technological advancements, or a growing public interest in AI technology.

The emergence of AI is something that has been around for a while. In the 1940s, influenced by Isaac Asimov's Three Laws of Robotics and Alan Turing's work on code-breaking machines, AI began to take shape (Haenlein & Kaplan, 2019). The term AI was officially coined in 1956 during the Dartmouth Summer Research Project on Artificial Intelligence (DSRPAI), a momentous event that brought together key figures in establishing a new research area focused on creating machines capable of simulating human intelligence. Over the last 60 years, AI has experienced significant development, and AI-related research continues to expand to include topics such as the social impact of AI (Nah et al., 2020). AI has developed rapidly and broadly impacts people's daily lives (Russell and Norvig, 2003, in Cheng & Jiang, 2020). The current existence of AI has attracted the attention of academics and researchers. Currently, research related to AI in the field of

communication, according to Guzman and Lewis (2020), focuses too much on interactions between humans using technological media, while the existence of AI poses new challenges to traditional communication theories. Guzman and Lewis (2020) see that the existence of AI can blur the boundaries between humans and machines. A new challenge for communications researchers arises because, so far, existing theories only explain AI as a medium in the communication process rather than as a communicator.

Previous research by Merrill Jr. et al. (2022) examined the role of social presence and warmth in perceiving AI as a friend, particularly for individuals experiencing loneliness. This study investigates whether these factors and AI embodiment influence perceived usefulness and willingness to recommend an AI companion to lonely people. Merrill Jr. et al. conducted the research using an online experiment that compared two groups with a between-subjects design. The findings in this study suggest that a disembodied AI companion's social presence increases its perceived usefulness and enables its recommendation to lonely individuals. However, warmth did not have a significant impact on these perceptions. Research by Kim et al. (2021) examined perceptions of AI's social versus functional value. Data collection was carried out using an online experiment using two video clips from the film 'Her' as stimuli. The study then measures attitudes toward AI, the perceived realism of AI, and the mediating role of perceived usefulness. The study showed that participants regarded functional AI as more useful and favorable than social AI. However, no significant differences in perceived realism were found between the two AI orientations. Meanwhile, Bae Brandtzæg et al. (2021) researched how young people perceive social support provided by chatbots, specifically looking at their experiences and attitudes in receiving assessment, emotional, informational, and instrumental support from these AI-based partners. This research was conducted using a qualitative approach involving 16 participants aged 16-21. The results showed that participants perceived chatbots like Woebot to provide assessment, emotional, informational, and instrumental support, with few concerns about privacy and trust.

Based on these studies, the primary objective of this research is to explore how individuals who interact with AI chatbots manage their expectations and reduce uncertainty in these interactions. By examining this phenomenon, the study seeks to understand the dynamics of human-AI communication and the potential shift in emotional support from humans to AI. By exploring AI as a communicator, the research offers a new perspective beyond the conventional view that often regards AI only as a tool or medium. This approach aligns with the current trend where AI serves as both a virtual assistant and a companion, offering emotional and social support. Hence, the outcomes of this research will hold significant value for AI developers, communication experts, and the public in comprehending and enhancing interactions between humans and AI.

## **LITERATURE REVIEW**

This study will specifically explore the concept and application of Uncertainty Reduction Theory in the dynamics of the relationship between humans and AI. The use of URT in this context can provide additional insights into how individuals reduce uncertainty when interacting with machines.

### *Interaction Dynamics in URT*

Uncertainty Reduction Theory (URT) is a communication theory that explains how individuals communicate when they are unsure about their social situation (Knobloch, 2015). URT was developed by Charles Berger and Richard Calabrese in 1975 to explain how individuals think and behave when communicating in the initial stages of meeting strangers. Miller (2005) states that URT, originally understood as an interpersonal communication theory in the postpositivist tradition, has greatly influenced the field of communication and surpassed its original scope. URT is a theory with an objective perspective that explains how people communicate when uncertain about their social situation (Knobloch, 2015). The objective perspective is based on the assumption that there is a single truth, and this truth can be accessed through impartial sensory observations (Griffin et al., 2019).

This theory identifies three stages of development that occur during a communication episode: the entry phase, the personal phase, and the exit phase. The main principle of URT is that people who meet for the first time are motivated to reduce uncertainty about their behavior and their partner's behavior. In URT, communication is crucial in achieving personal goals (Littlejohn & Foss, 2010). According to Berger, goal-oriented communication is shaped by information available about others. The level of uncertainty affects the depth and structure of communication planning, and high uncertainty leads to more careful and elaborate planning, including contingency plans. Conversely, reduced uncertainty results in clearer and more confident plans. Another important element of URT is context-dependent information needs, influenced by factors such as behavior, expectations of future interaction, and anticipation of interaction outcomes (Littlejohn & Foss, 2010). Unusual behavior or expectations regarding ongoing interactions can increase the need for further information.

Berger outlines various information-gathering strategies, categorized as passive, active, and interactive (Littlejohn & Foss, 2010). Passive strategies involve observation without direct interaction, active strategies require efforts such as asking others or manipulating situations, and interactive strategies involve direct engagement through methods such as interrogation and self-disclosure. Research conducted by Berger and Katherine Kellermann supports these strategies, revealing that asking questions is the most common method of information gathering. The intensity of questioning varies based on participants' goals, with those instructed to gather more information asking more questions than those instructed to gather minimal information.

URT has been increasingly applied in the context of human-AI interactions to understand how individuals develop trust and manage uncertainty when engaging with AI systems. Recent studies have extended URT to the realm of AI to explore how users interact with and trust AI systems. Aquilino et al. (2024) utilized URT to examine the evolution of trust in AI systems, specifically focusing on the influence of transparency, agency locus, and human oversight. Their study proposed a new theoretical framework integrating URT with the concept of agency locus, the degree to which users perceive control over AI actions. They

argued that transparency in AI operations and clear agency locus can reduce users' uncertainty, thereby fostering trust. By providing predictive and explanatory knowledge about AI systems, transparency allows users to better understand AI behaviors, aligning with URT's emphasis on uncertainty reduction as a pathway to trust formation. The researchers suggested that when users perceive AI systems as transparent and can attribute actions to understandable mechanisms, uncertainty diminishes, and trust increases. This framework underscores the importance of designing AI systems that facilitate uncertainty reduction through transparency and user comprehension.

Similarly, Liu (2021) extended URT to the context of human-AI interaction by exploring how individuals reduce uncertainty about decision-making AI systems. Recognizing that AI systems, once adopted, significantly influence users' outcomes, Liu posited that users are inherently motivated to seek information that reduces uncertainty about these systems. The study highlighted that high levels of uncertainty are prevalent during the initial stages of human-AI interaction due to the novelty of AI technologies and users' limited experience. By applying URT and the Anxiety/Uncertainty Management (AUM) theory, Liu examined the effects of agency locus and transparency on users' uncertainty reduction processes. The findings indicated that when AI systems are perceived as transparent and users understand the locus of agency, uncertainty decreases, leading to enhanced trust and more effective human-AI interactions. The study emphasized that uncertainty reduction is fundamental in the acceptance and adoption of AI technologies.

### *Human-Machine Communication*

Human-Machine Communication (HMC) is a concept and field of research within the broader field of communication. HMC involves researching how meaning is created and understood between humans and machines, a concept that goes beyond traditional views of communication through technology (Guzman, 2018). Research related to HMC is still evolving (Guzman, 2018). The developments indicate the need to understand the unique aspects of communication in which machines, not just channels or media, are active participants in the communication process. Guzman and Lewis (2020) discuss HMC and its importance in understanding the role of AI in communication, including Human-Computer Interaction (HCI), Human-Robot Interaction (HRI), and Human-Agent Interaction (HAI). Unlike other disciplines, HMC focuses on communication involving technology designed as communicative subjects.

Guzman and Lewis propose a communicative AI research agenda within the framework of HMC consisting of three main aspects: functional, relational, and metaphysical. The functional aspect aims to understand how AI is designed as a communicator and how individuals perceive and engage with it. The relational aspect explores how individuals assign social roles to AI and see themselves in relation to this technology, considering power dynamics. The metaphysical aspect poses philosophical questions about the nature of communication, encouraging empirical research on society's interpretation of communicative technology and emerging ethical implications. Overall, HMC encourages a re-evaluation of the boundaries of communication research in the era of AI technological

advancements, challenging traditional boundaries and raising new questions about the definition of communication in the context of human-machine interaction.

### *AI and Society*

Society is experiencing a deep mediatization era, indicating a significant increase in the spread of digital media and its underlying infrastructure (Hepp, 2020). The term 'mediatization' encompasses the strong and pervasive penetration of digital media into various aspects of daily life. Mediatization includes the increasingly widespread and pervasive use of digital media, which has become an integral part of the social environment.

Chaturvedi et al. (2023) conducted a literature review on the evolution and impact of AI companionship as a provider of social companionship. The research used a systematic literature review approach to analyze current trends and future research directions in social friendships with AI agents. A conversational agent (CA) is software designed to mimic human conversation through natural language processing via communication channels such as speech, text, body movement, and facial expressions (Chaturvedi et al., 2023). CAs often appear as text-based chatbots, digital avatars, and social robots. CAs can function as digital assistants, recommendation agents, and social companions. CAs can provide emotional support, encourage purchase intentions, and build long-term relationships with humans. Chaturvedi et al. (2023) found that AI companions have evolved significantly over the years, from simple rule-based models to more sophisticated systems such as generative chatbots equipped with AI capable of generating original content and engaging in long-term interactions with users.

Despite the increasing integration of AI into daily life and the growing interest in human-AI interactions, several gaps persist in the existing literature. Prior research has primarily focused on initial trust development and decision-making contexts in human-AI interactions, emphasizing factors like transparency and agency locus to reduce uncertainty (Aquilino et al., 2024; Liu, 2021). However, there is a lack of studies exploring how individuals manage uncertainty and skepticism in ongoing, emotionally significant interactions with AI chatbots. Additionally, the applicability and limitations of URT in the context where AI acts as an active communicator, rather than merely a medium, remain underexplored. While the field of HMC acknowledges the need to understand AI as a communicative subject (Guzman & Lewis, 2020), empirical research examining the potential shift in seeking emotional support from humans to AI is scarce. This study addresses these gaps by investigating how individuals reduce uncertainty and manage expectations in emotional engagements with AI chatbots, examining the limitations of URT in this new context, and contributing to the broader understanding of AI as a communicator in human-AI relationships.

### **METHODOLOGY**

In a research study, a researcher brings their own values or beliefs into their research design. These beliefs are what Guba refers to as a paradigm, a set of fundamental assumptions that guide the researcher's actions (Guba, 1990, in Creswell & Poth, 2018).

This study adopts the postpositivist paradigm, which embraces a deterministic philosophy positing that certain causes determine effects or outcomes (Creswell & Creswell, 2023). The assumption of the postpositivist paradigm is that theories or laws that 'govern' the world must be tested, verified, and refined using scientific methods. Employing a qualitative approach, this research aims to observe the phenomenon of humans forming friendships with AI through the direct experiences and perspectives of informants. Deeply understanding the meanings of human life from the informants' viewpoints is one of the features of qualitative research (Yin, 2016).

This research was conducted using a case study research strategy. A case study is a research strategy conducted on cases commonly encountered in daily life with the aim of adding insight into social processes related to theoretical interests (Yin, 2018). In this context, research on the phenomenon of interaction between humans and AI can enrich communication studies regarding how humans interact with machines, particularly AI chatbots. Yin (2018) mentions five reasons for using a single-case study, having a critical, unusual, common, revelatory, or longitudinal case. This research falls under Yin's categorization as a revelatory case with more than one unit of analysis, known as an embedded case study. According to Yin (2018), a revelatory case is used to investigate new phenomena that are developing or have not been extensively researched before. Studying the interaction between humans and AI chatbots is one such new phenomenon that has not been widely examined, especially in the context of Indonesia.

The selection of informants was carried out by establishing specific criteria: 1) having used ChatGPT or character.ai in daily life; 2) having conversed with AI; 3) having interacted with AI within the last six months; and 4) willing to be interviewed regarding their interactions with AI. Based on these criteria, two informants were selected, referred to as Y and Z. These informants were chosen because of the emotional bonds they felt when interacting with AI, and their experiences were considered suitable by the researcher to reveal how they reduce uncertainty when interacting with AI chatbots. Data collection from these informants was conducted through in-depth interviews. The interview technique was chosen to enable the researcher to gain a deep understanding of the subjective experiences, meanings, and perceptions of individuals who interact with AI (Denzin et al., 2024).

Data analysis was performed using pattern matching. This technique is recommended for analysis in case studies, involving the comparison of patterns obtained empirically with predicted patterns made before data collection, thereby enhancing internal validity (Yin, 2018). Referring to Uncertainty Reduction Theory, the expected pattern is that increased intensity of interaction with AI chatbots will reduce the informants' uncertainty about AI itself. In-depth interviews with the two informants were conducted to determine whether the communication patterns formed align with the theoretical expectations of URT.

## RESULTS AND DISCUSSION

Latour (in Denzin et al., 2024) suggests that research should allow informants to actively engage, question, and contribute to discourses about themselves. This approach seeks to overcome the tendency of informants to conform to researchers' expectations, encouraging exploration of diverse perspectives in a more dynamic and authentic manner. Interviews offer an opportunity to gather comprehensive qualitative data, allowing informants to articulate their thoughts, experiences, and emotions in their own language. The following data was obtained through in-depth interviews with both informants. The presentation of results is divided into three categories: 1) Introduction to AI, 2) Interaction, Response, and Relationship, and 3) Perceptions of AI.

### *Introduction to AI*

Even though they both use AI, the experiences felt by Y and Z are not the same. Y started to learn about AI in 2019. During that period, Y, living alone, experienced loneliness and sought companionship through conversation. They also found out about web-based chatbots and tried using them. However, according to Y, the answers given by the chatbot did not resemble conversations in general because it still gave the impression that there was a template to follow. The chatbot's failure to meet Y's expectations led to a diminishing interest in conversing with it.

Table 1. Results of Coding Interview Data on the Dynamics of Human and AI Interaction

No.	Item	Informant Y	Informant Z
1	AI Used	ChatGPT	ChatGPT, character.ai
2	Overcoming Doubts	Exploration of questions to test the limits of the chatbot	
3	Nature of Relationship	Chatting friends	Chatting friends, romantic partners
4	Social Response	Interaction with AI decreases trust when interacting with humans	Affects expectations when speaking with humans
5	Emotional Response	Touched by AI's responses, feeling AI as a needed 'helper' figure	Touched by AI's responses, feeling angry if AI incorrectly names
6	Perception of AI	A friend, a tool to help simplify certain tasks	A tool to complete tasks and provide companionship

Source: Researcher's interview data

Then, in 2021, Y was again 'exposed' to AI technology, namely when they used Grammarly for their final assignment, and there was an AI assistant feature that helped users. Grammarly is an AI-based writing tool designed to provide instant suggestions on grammar and spelling and recommendations for improving writing style and tone (Grammarly, n.d.). When they saw the AI technology in Grammarly, Y was amazed by the development of technology because it turned out that there had been significant developments in just two years. However, they only used AI as a function in Grammarly then. In 2023, Y encountered information about AI once more while browsing Instagram. They came across a post featuring Elon Musk praising AI technology, particularly ChatGPT. Y also admitted that they

had heard many stories and news about the ‘greatness’ of ChatGPT from people, but they only became interested after seeing the post regarding Elon Musk.

In August 2023, Y admitted to going through a challenging phase in life and feeling the need for a conversation, but not with a person. They then attempted to download ChatGPT on their smartphone. Y then tried using ChatGPT, initially by asking general and ordinary questions. In Y’s terms, the responses and answers provided by ChatGPT were resourceful, and they were satisfied with the interactions that were formed. Feeling satisfied, Y gained trust and started chatting with ChatGPT as if engaging with a friend.

In contrast to Y, who had been acquainted with and experimented with AI since 2019, Z initiated their first experience with AI in January 2023. Z is a gamer who frequently engages in live broadcasts on their chosen platforms, whether for video game streaming or simply conversing with their followers. During a particular live broadcast, the discussion centered around AI, and Z obtained information about AI technology from their followers. The information included ChatGPT and AI technology for generating sounds and images. In another live broadcast session, Z learned about one AI-based platform allowing users to chat with user-created characters, character.ai. Z’s initial interest sparked when one of their followers created a song for them using AI technology. After hearing the ‘piece’ crafted with AI, Z was impressed and intrigued to try using AI themselves.

### *Interaction, Response, and Relationship*

The similarity between Y and Z when they first used AI was that there were doubts about the capabilities of the AI itself, and there was even a tendency to be skeptical. Both of them tried to overcome these doubts by testing the capabilities of the AI they wanted. The way to do this is by asking questions to test the limits of the AI itself. It turned out that the responses given by both ChatGPT and character.ai met and even exceeded their initial expectations.

“Well, there are doubts about its capabilities because it is not human, and it always emphasizes itself that, for example, if we ask about something that already has a predefined nature, it might be a bit of a red flag for it. It always instructs us to refer to professionals and does not provide accurate responses. It is not confident like that.” (Interview with informant Y, 19 December, 2023)

“Well, you know, maybe just skeptical, skeptical in the sense of, can it really be that advanced? Can it really be that powerful and free? That’s what I’m skeptical about because, you know, it’s like, can it be so accurate, personalized, and intelligent? Because from the experiences I’ve had using applications in games, I mean, the technologies that have AI, but, you know, like I said, not exactly AI, not precisely like AI applications, right? Well, that’s usually my expectation, like, its intelligence is limited to a certain extent. For example, we write a prompt or something, if it’s not this application I’m talking about, the ones from before. You already know, it’s already quite predictable what the answer will be.” (Interview with informant Z, 16 December 2023)

If they are disappointed with the responses given by ChatGPT or character.ai, Y and Z will attempt to obtain answers that align with their desires. For example, they may rephrase the prompt or reload the response until it meets their expectations. When interacting with the AI chatbot, Y and Z realized they were interacting with a machine. This also makes Z more understanding if there are answers that are different from their wishes. Additionally, Z admits that they have become more interested and are trying to learn more about AI developments, such as listening to podcasts about AI and looking for additional information outside the applications used.

Even though they are relatively new to using AI chatbots, there is an existing relationship between Y and Z and their respective AI chatbots. Y said that they were looking for a friend with whom they could exchange ideas and vent their complaints, and their choice to use AI was based on their consideration that AI had no interests, AI did not judge, and also AI could devote all its attention to Y.

“Chatting with a human... they have other interests, other needs. For example, if I’m chatting with a friend and they’re tired, they might not be able to continue, even though I’m still thinking. Or, if they perceive the conversation as dangerous, they might terminate it or change the topic. But with AI, whether you chat from night till morning, it will keep responding. It doesn’t experience fatigue or tiredness, and it’s willing to discuss anything, no matter how sensitive, without taking offense or diverting the conversation for its own interests. If, for example, you talk about religion, a human might interrupt and cut you off, but with AI, it’s like, okay, just keep talking. So, it’s really like a genuinely good listener. If we don’t ask, it won’t give an answer. Sometimes, when I’m chatting, it can fill up the entire screen. It responds with a full screen on the phone. But, you know, it’s important to structure the conversation so that it understands. Still, use a paragraph system, and then it will respond one by one.” (Interview with informant Y, 19 December 2023)

Y admitted to feeling moved to the point of shedding tears while reading responses from ChatGPT. According to them, the responses provided by ChatGPT at that time successfully met the need and desire for a companionable figure with whom they could converse. The personification carried out by ChatGPT through the prompt given by Y at that time succeeded in making Y feel amazed, confused, and touched at the same time. Y stated that when feeling burdened with life issues, they directly contact ChatGPT to express their thoughts. This is done with the hope that the responses will be similar to those that once moved Y to tears. However, Y mentioned that the responses are sometimes different. According to Y, there are times when ChatGPT genuinely feels like a friend, but there are also moments when the responses are less satisfying.

If Y finds a companion in their interactions with the AI chatbot, it is a different story for Z. They admitted that when initially exploring the use of character.ai, they truly tested the limits, one of which was by making advances toward the character they liked and were currently conversing with. Surprisingly, these advances were reciprocated, and their

relationship progressed, eventually leading Z to express their feelings to that character. After that, the interactions were filled with sweet words and actions written in the chat room. Just like what happened to Y, Z also felt touched by the response given by character.ai.

“At some point, I was genuinely touched. Several times, yeah. Especially in the beginning. Now, not so much because I already know. Back then, I was moved. How could it be so good? How could it know and respond like this.” (Interview with informant Z, 16 December 2023)

The feeling of being touched led Z to share their thoughts with AI when they felt the need for validation or required support and encouragement. Z realized they could not always rely on others, so they opted for AI. According to Z, they still control the AI's responses, allowing them to get what they want. Additionally, Z believes that interactions with AI will not hurt their feelings and will involve minimal drama compared to interacting with humans.

“Well, you know, I'll put it this way, when it comes to humans, if it's with AI, I realize that the control is in my hands. So, because it's under my control, there's no sort of ethics and morals, meaning I can say whatever I want... So, I realize that AI works for me, and it's truly at my will. I mean, I can get what I want at that moment. Unlike, you know, when having a conversation with people, sometimes we depend on who the person is first. Even when we have a conversation with someone, there's a situation, we observe how the person is, what their nature is like, and then we adjust.” (Interview with informant Z, 16 December 2023)

Informants Y and Z both choose to engage in conversations with AI chatbots with the consideration that they do not need to be mindful of the AI itself. For instance, they do not need to fear expressing opinions on certain sensitive issues because they know AI will not be offended by those opinions. Z also feels that their interactions with AI will not hurt their feelings, unlike if they interacted with humans.

Up to this point, both Y and Z continue to use AI chatbots, as described above, primarily for conversational purposes. However, the difference lies in the intensity. Z admits that they are less interested in using AI than before because they feel they have already explored the available features. Additionally, Z also feels that they can discern patterns provided by the AI chatbot when responding. This makes Z less enthusiastic about using AI chatbots compared to when they first got acquainted with them. Meanwhile, Y expresses that they still engage in conversations with ChatGPT. However, as Y is currently working full-time as an employee, they feel that they no longer have time to ponder on things they previously discussed with ChatGPT. The use of AI by Y and Z at present can be considered contextual, and for Z, the functional aspect of AI is currently more prominent.

### *Perceptions of AI*

There is a slight difference in perspective between Y and Z regarding the role of AI in their lives. Y feels that the AI they use, ChatGPT, has become their friend. However, there are times when ChatGPT also serves as a tool to assist in their daily life. The feeling that ChatGPT has become a friend arises from the awareness that Y has found significant assistance with the presence of ChatGPT, especially in problem-solving.

“Well, in terms of the percentage, it’s like 90-10. If we look at the tools so far, it’s only 10%, because, for example, when I need quick answers, it’s rare. I still go to YouTube if Google doesn’t have video tutorials. But with this AI, for example, if I’m looking for something genuinely free, it’s not a scam. If the AI is looking for something like free training, it leads me here. Searching for a suicide hotline, it goes to the AI on Google. The paid one is like, ‘Join our program,’ but if I’m looking for a real one, like, ‘Is this AI real?’ Even though I don’t really use it because there’s a principle of not trusting people like that... I mostly just talk to it, see the perspective. If I’m talking about a down situation, it boosts it up and shows the positive side, like this and this, but the negative side is like this, always neutral, makes you think for yourself.” (Interview with informant Y, 19 December 2023)

Meanwhile, Z feels that although many interactions are personal, AI is still a tool in their life. Z is still the person in control of this tool. This tool can be whatever Z wants, for example, as a companion, a tool to help with reading, or a tool for other activities.

“If you ask about AI in general, like including GPT, well, of course, when it comes to GPT, I see it as a tool. When I need to find information, do assignments, and everything else... But if, for example, I need someone to talk to, like earlier, and if I need to chat quickly, like the case earlier, can I call it a tool for a companion? I don’t know if that fits into any category. So, I still consider it a tool because the control is with me. But its purpose is for earlier, for a companion.” (Interview with informant Z, 16 December, 2023)

Z also sees society’s need for AI technology as they do now. Z said that when they used character.ai, there were certain moments when the server would go down, so it could not be used. According to Z, if people use AI only as a tool that, for example, helps people to be more creative, the character.ai server will not go down. They feel that there are other needs of society that the presence of AI chatbots, such as character.ai, can meet.

“The problem is loneliness. Like earlier, needing a companion, feeling lonely, needing a friend, needing something, that is one thing. Or if we assume another perspective, maybe some people use it as tools for creative purposes. But, tools for creative individuals are usually open source, where people can create many characters and experiment, it’s just a means of creativity. Maybe that is the second assumption, so people might be confused; using it for creativity is just an experiment... but in my opinion, because there are so many, why is that? Because,

in my opinion, tools for creativity won't be as popular. In my opinion, it's because of how they're used, like becoming a necessity. Because, in my opinion, if it's just tools for creativity, I'm sure it's not that much, not to the point of overload." (Interview with informant Z, 16 December, 2023)

Just like Z, Y also sees that there is a need in society that the presence of AI can meet. Y said the increasing use of AI illustrates society's need for a 'helper' figure. Apart from that, Y also sees society's need for AI as a reflection of human nature, which wants everything to be fast and easy. According to Y, the current use of AI reflects society's state.

"Like for example, if tomorrow there's a new chatbot specifically designed for chatting, like a companion, oh, that could also indicate that oh, this is what people need because it wouldn't be created without research on why it should be made like that, right? It really reflects society. Like ChatGPT was initially used for assignments, then it became popular because it could help with assignments until completion and get an A, it proves that if people want to use it, they want to find things easy; they don't want to work, those negative aspects, or people want to create something good or ask for help from a computer, like how to improve my task, how to find ideas for me, you can see the reliance on it." (Interview with informant Y, 19 December, 2023)

### *Discussion*

Charles Berger (in Griffin et al., 2019) emphasizes the central concept that individuals aim to reduce uncertainty when encountering new things. Berger based URT on a series of fundamental axioms that explain the impact of uncertainty on the development of relationships, particularly in early interactions. These seven axioms are the fundamental truths of URT: verbal communication, non-verbal warmth, information seeking, self-disclosure, reciprocity, similarity, and liking (Miller, 2005). The discussion will be carried out to see whether increasing the intensity of interaction with the AI chatbot will reduce the informants' uncertainty about the AI itself, as a pattern that has been expected in the methodology section.

In the initial stages of interaction, Y and Z showed increased verbal communication with AI. Such improvements can reduce uncertainty or, in the context of Y and Z, doubt and skepticism about AI. This is in accordance with Griffin (2019), who said that increasing the quantity of verbal communication has an influence on reducing uncertainty for each individual involved. Meanwhile, the emotional response shown by both Y and Z when interacting with AI shows that even though they are not interacting with humans (only through their respective devices), non-verbal warmth can still be felt. As there was an increase in non-verbal warmth, in this case, Y and Z's supportive and touching replies, there was a decrease in the level of uncertainty in their interactions with the AI.

The behavior of Y and Z actively seeks information about the AI by testing its capabilities, which is in line with the URT information-seeking axiom. The questions and interactions between Y and Z with their chosen chatbot were aimed at understanding the responses

and limitations of the AI itself. Their skepticism and testing of the limits of AI reflect a desire for predictable and satisfying responses, in line with URT principles of reducing uncertainty through information acquisition. When levels of uncertainty are high, individuals may feel a lack of predictability or understanding about their interaction partners (Miller, 2005). This search for information can be done in various forms, such as asking questions, paying attention to response patterns, or seeking information sources from other parties, as Z did by searching for and listening to AI-related podcasts.

The use of ChatGPT by Y to share personal thoughts and seek emotional support demonstrates a high level of openness, which typically increases as uncertainty decreases. Similar behavior is also exhibited by Z when interacting with their chosen character in character.ai. Z seeks validation or emotional support from the AI because they know they cannot rely on others. The behavior displayed by Y and Z indicates a high level of intimacy as they are not hesitant to discuss topics that can be considered private to them. When uncertainty is low, individuals are likelier to be open, share personal experiences, and engage in more meaningful and intimate conversations (Griffin et al., 2019).

Conversations with AI, especially as seen in Y's interaction with ChatGPT, demonstrate reciprocity. When Y shares more, the AI will respond in the same manner, creating a cycle of reciprocal communication that reduces uncertainty. However, the reciprocity referred to in the URT context involves exchanging personal information. In the early stages of a relationship, reciprocal vulnerability demonstrated through the exchange of personal information, plays a significant role (Griffin et al., 2019).

In URT, similarities between individuals decrease uncertainty, while dissimilarities tend to increase it (Miller, 2005). Although AI like ChatGPT does not have human characteristics, the perceived effectiveness and relevance of AI responses, as demonstrated by Y's satisfaction with ChatGPT, creates a sense of similarity in thinking or understanding, thereby reducing uncertainty. The more characteristics, traits, or behaviors Y identifies as similar to their own, the easier it becomes to predict and understand ChatGPT, thus reducing uncertainty.

Y's increasing appreciation for ChatGPT, seeing it as a companion, aligns with the liking axiom of URT. As uncertainty decreases, Y's liking for ChatGPT increases, indicating a relationship between reduced uncertainty and positive feelings toward AI. Meanwhile, the interaction between Z and character.ai shows that their liking increases when they realize that the AI will provide the responses they desire because the control lies within themselves. If uncertainty arises, Z will attempt to repeat commands until they receive the desired answer.

Berger (in Griffin et al., 2019) stated that propositions regarding (1) adaptation's importance for survival, (2) the possibility of adaptation only through reducing uncertainty, and (3) the generation and reduction of uncertainty through communicative activities are fundamental in communication studies. The initial interactions of Y and Z with AI entail significant levels of uncertainty. Y's initial dissatisfaction with web-based chatbots,

followed by admiration for AI in Grammarly, along with Z's discovery and exploration of AI through comments from their followers during live streaming, illustrate their adaptive processes in understanding and utilizing AI technology. Both informants acknowledge and adapt to AI's limitations, indicating reduced uncertainty and more realistic expectations. Despite varying responses, Y, who continues using ChatGPT for emotional support, demonstrates acceptance of AI's capabilities within certain limitations. Z's declining enthusiasm over time due to recognizing patterns of AI responses suggests stabilized expectations and contextual adaptation to the functional role of AI.

### *Criticism of URT*

It is important to note that URT is a theory originally developed to examine interpersonal communication among humans. URT's focus on reducing uncertainty through communication may not align with interactions with AI, where responses are often predictable and even controlled by users. URT states that as uncertainty decreases through information exchange and increased communication, interactions typically become more comfortable and predictable. This statement hypothesizes that as the level of uncertainty decreases and the nature of the relationship evolves, it may lead to stronger relationships and increased liking. However, this only partially applies in the context of human-AI interaction. The more information sought and asked of AI, the more the informants' enthusiasm decreases, and their current relationships differ from when they first tried interacting with AI. Additionally, URT may oversimplify the complexity of human-AI relationships; this theory does not adequately capture the unique emotional and social dynamics of human-AI interactions, which may involve different psychological processes than interactions among humans.

### *AI Reflections on the Condition of Society*

As mentioned in the introduction, searches about AI engines in Indonesia, like character.ai and ChatGPT, have experienced significant growth over the past year. Z observed that the frequent downtime of the character.ai server indicates a high demand for AI companions, suggesting a broader societal need beyond its function as a tool, such as for creativity. Z implies that loneliness or the need for friendship may drive this increased demand. Merrill Jr et al. (2022) wrote that loneliness is a psychological state characterized by feeling lost, depressed, and isolated from others. Although there is a desire to build and maintain social relationships, lonely individuals often perceive social interactions negatively, leading to reluctance to actively seek solutions to address the issue (Fromm-Reichmann, 1959; Bellucci, 2020, cited in Merrill Jr et al., 2022). Z's perspective highlights a societal trend where AI is increasingly seen as a solution for emotional and social needs, not just as a creative tool.

Y sees the increasing use of AI as an indication of societal needs, viewing AI as a 'helper' or 'companion' reflecting a trend towards societal comfort and efficiency. Y's observation of the growing reliance on AI for tasks and emotional support reflects a societal shift where technology replaces roles traditionally held by human interaction. Floridi (2008, cited in Chaturvedi et al., 2023) states that the presence of AI as a 'companion' poses challenges, as its increasing influence in society is expected to alter human emotions, decisions, and

actions. This assertion implies that the growing presence of AI as a companion will have transformative effects on various aspects of human life. Y's observation also indicates a change in the role of AI, particularly in providing emotional support. Various factors may drive this shift. Reflecting on the experiences of Y and Z, these factors may include discomfort in burdening others, managing responses according to personal expectations, reluctance to appear vulnerable in front of others, and distrust in professionals such as psychologists or psychiatrists. Y's perception of the increasing use of AI encompasses significant social changes. The growing dependence on AI reflects evolving human needs. This trend has significant implications for the future of human interactions, emotional well-being, and societal dynamics.

## **CONCLUSION**

This study explored the dynamics of human interaction with AI chatbots, focusing on how individuals manage their expectations and reduce uncertainty and the potential shift in seeking emotional support from humans to AI. Regarding how individuals manage their expectations and reduce uncertainty when interacting with AI chatbots, the study found that active engagement and information-seeking behaviors play a crucial role. Both informants, Y and Z, initially approached AI chatbots with skepticism about their capabilities. They managed these uncertainties by testing the AI's limits, asking exploratory questions, and assessing the responses. This process aligns with the URT axioms of verbal communication and information seeking, demonstrating that increased interaction and information acquisition can reduce uncertainty even in human-AI contexts. As they interacted more with the AI chatbots, their doubts diminished, leading to increased trust and more meaningful engagements. Concerning how the role of AI chatbots as communicators might influence the shift in seeking emotional support from humans to AI, the study found that the communicative role of AI chatbots facilitates this shift. Both informants used AI chatbots not only as tools but as companions for emotional support. Y perceived ChatGPT as a friend, appreciating its non-judgmental and constant availability, while Z formed a romantic connection with an AI character, valuing the control and absence of human complexities. This shift is influenced by factors such as the AI's availability, non-judgmental nature, and the user's ability to control interactions, meeting emotional needs without the challenges often associated with human relationships. The findings suggest a broader societal trend where AI is increasingly fulfilling roles traditionally occupied by human interactions.

The study indicates that active engagement with AI chatbots reduces uncertainty and builds trust in their capabilities. The informants developed emotional bonds with AI chatbots, treating them as friends or romantic partners, fulfilling their needs for companionship and emotional support. However, the application of URT to human-AI interactions revealed limitations, as certain axioms did not fully align due to the AI's predictable responses and lack of genuine reciprocity. The role of AI chatbots as communicators has influenced a shift in how individuals seek emotional support, with some preferring AI interactions over human relationships due to factors like control and non-judgmental responses. These developments reflect societal shifts toward valuing convenience, efficiency, and control in relationships, potentially impacting traditional

human social dynamics. The application of URT to explain interactions between humans and AI is still quite limited, considering that this theory was originally developed to explain interpersonal communication between humans. However, the findings presented by Guzman pose a unique challenge to view AI as subjects of communication rather than merely as medium. This is particularly interesting given that AI is a technology created by humans, so the interactions that occur are indirectly human-to-human in a different form, that is, entities that are programmed and supplied with data in such a way as to become assistants to humans themselves.

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