Navigating Heartbreak in the AI Era: College Student Attitudes Towards ChatGPT-Authored Breakup Letters

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Abstract. Recently, the artificial intelligence-driven ChatGPT has garnered global attention, with its applications extending to an array of contexts, including personal and emotionally charged decisions. This study adopted a mixed methods including survey and semi-structured interviews to explore college students' attitudes towards using AI-ChatGPT to write breakup letters, an emerging phenomenon with implications for interpersonal communication norms, and briefly analyzed the reasons why people choose different online and offline breakup strategies. Surveys (N=154) revealed a near even split between preferences for online versus offline relationship dissolution. In-depth interviews (N=20) provided richer insights, with thematic analysis identifying openness to AI assistance alongside a predominant desire for human nuance in offline breakups. Despite recognizing limitations, some participants were moved by AI-written messages, seeing potential for skills development. With advancing AI language capabilities, continuing research in this domain is critical to inform ethical guidelines and ensure appropriate integration of technology in sensitive relational contexts. As one of the first investigations of perceptions at the intersection of AI, online communication, and relationship endings, this study's findings contribute valuable baseline data on this evolving dynamic.

Keywords: Breakups; ChatGPT; Artificial intelligence; Online communication; College students.

1   Introduction

Romantic relationships are ways of social connections and are deemed critical for the psychological well-being of the majority of individuals (Leone & Hawkins, 2006)[1]. Such relationships engender a distinctive constellation of challenges, among which the breakup experience represents a salient issue (Alexander, 2008)[2]. Breakups are ubiquitous experiences, especially among adolescents and young adults (Robak & Weitzman, 1998)[3]. Individuals employ various strategies when ending romantic relationships, broadly categorized as online or offline approaches. Online breakups occur over digital media, forums, messaging, and internet platforms. Offline breakups take place in face-to-face encounters and conversations (Alicea & Julians, 2020)[4]. Prior research

suggests potential advantages and drawbacks of both online and offline breakup strategies. Offline breakups allow for nonverbal cues, dialogue, and mutual understanding, which can facilitate closure (Wilmot, Carbaugh & Baxter, 1985)[5]. However, some avoid in-person breakups to elude confrontation or due to logistical barriers, turning to digital mediums (Lukacs & Quan-Haase, 2015)[6]. Text-based online communication poses challenges such as misinterpretation (Ibid).

Despite the prevalence of breakups, little research has examined the role of AI in relationship dissolution. Chatbot technology has indeed undergone tremendous advancements in recent years, especially with the advent of ChatGPT, the famous AI language model, which has changed the landscape of scientific research (Ray, 2023)[7]. The general attitude towards it is dialectical, on the one hand it is effective in helping people working smoothly, and on the other hand it is prescribed to use it in moderation and in a limited way (Raj et al., 2023)[8]. Hence, this study aims to investigate college students' attitudes towards ChatGPT writing breakup letters and analyze motivations behind online versus offline breakup strategies. Understanding views on integrating AI in relationship endings provides insights into evolving social norms and dependence on technology for intimate communication. Findings could have implications for mental health professionals regarding ethical use of AI. This study offers an initial foray into examining AI's potential influence in the dissolution of romantic bonds.

2   Literature Review

Research shows that when partners discover they are on the same page about ending their relationship and can talk about it, outcomes are more favorable. The use of face-to-face interview strategies can make it easier for both parties to reach ideological consensus and decision-making unity. Post-breakup grief, while still considerable, tends to be less when people experience mutual decision to break up (Morris, Reiber & Roman, 2015)[9]. Face-to-face communication is often more conducive to receptive knowledge and understanding of what each other is conveying. While people always use language to express their feelings, insight is also an effective way to help us accept our feelings (Winger, 2005)[10]. Overall, most people place a lot of importance on how they and their partner feel in a relationship. That's why they tend to choose offline rather than online breakups.

However, Alicea's research found that people now communicate more online than offline. It can be summarized that online interactions have four characteristics compared to offline: (1) fewer nonverbal cues, (2) greater anonymity, (3) more opportunity to form new social ties and bolster weak ties, and (4) wider dissemination of information. These characteristics mean that online breakups are not real. They can be distracting, reduce the effectiveness of offline connections, and reduce the perceived quality of human interactions (Alicea & Julians, 2020)[11]. In addition, the results from a survey show that content on Facebook can be a significant source of personal pain after a breakup. Young people who engage in higher levels of internet electronic surveillance experience more breakup distress. This illustrates the incompleteness of the online

breakup strategy, which often leads to more negativity and psychological impact afterward (Lukacs & Quan-Haase, 2015).

When it comes to the attitude of the world towards ChatGPT, it actually has attracted a lot of attention and discussion in academia, industry, and the tech community. People have a positive attitude towards ChatGPT and believe that it has the potential to advance scientific research in various fields. However, people are also concerned and wary of issues such as human dependency, online fraud, racial discrimination, and sensitive personal information, such as ethical and data biases that they may face. In fact, the exploration of artificial intelligence and chatbots' influence on interpersonal communication and relationship formation constitutes a significant trajectory of contemporary research. Burgoon et al. (2016) have provided seminal theoretical contributions by examining adaptive behaviors within human-to-human interactions, thus laying a foundational basis for interrogating the role of artificial intelligence within this paradigm[12]. In light of this, there is a pressing imperative to systematically integrate platforms such as ChatGPT into established communication models, thereby scrutinizing the modifications they introduce to the dissemination of information and evaluating the consequent effects on the dynamics of relationship development and sustenance. Pursuant to such investigations, not only can the design and implementation of chatbots be optimized, but a more profound comprehension of the quintessence of human communicative exchanges may be gleaned.

3   Research Methods

3.1   Sampling

The research collected 183 pieces of data through questionnaires in advance, of which 154 were valid samples (including 47 males and 107 females). In the valid samples, 72 people chose to break up online, while 82 people chose to break up offline. The samples were all college students, collected through online platforms, and the participants voluntarily signed the informed consent form. According to the reasons for the online or offline breakup of the participants in the sample, the follow-up random face-to-face interview was conducted according to the type, the interview process was recorded, and the participants expressed their feelings and accepted them voluntarily.

3.2   Survey

Considering that questionnaire could collect the subjective opinions, attitudes and perceptions of the participants and compare them in large numbers, gather more information in a relatively short period of time and provide a more comprehensive and extensive data set, this method was employed for the research (Taherdoost, 2021)[13]. In addition, questionnaire also allows participants to provide information in a relatively anonymous environment, which helps protect participants' privacy and encourages them to provide truthful and honest responses.

In this questionnaire, in addition to the basic information (age, gender) of the participants, the following questions are also included: "Have you ever been in a relationship

at least once"; "Have you ever broken up?"; "How is your relationship now"; "Would you choose to break up online or 'break up offline'?" and "Can you briefly explain why based on your choice".

3.3   Interview

This study employed in-depth interviews and audio recordings. Interview research enables the integration of the participants' real-life contexts, and face-to-face interviews allows the researchers to directly observe the participants' voices and expressions, gaining insights into their true feelings and real-life experiences, beyond surface-level quantitative data (Ibid). Interview research also allows for high flexibility since the researcher could make adjustments throughout the research process based on interviews' immediate feedback.

The study first showed the participants a video about a boy who wrote an email asking his girlfriend to forgive him through ChatGPT, and finally forgave him after his girlfriend read the letter (this series of stories happened on mobile social media, that is, online); and then asked questions (subject to change for special or unusual responses) based on the following prepared ones: "What do you think about online breakups (and if he himself is online, then ask how do you think about offline breakups)?"; "What do you feel intuitively after watching this video?"; "What would you think if you were being done this?"; "If it were you, would you accept using AI or ChatGPT emotionally, and tell us about the specific reasons and feelings?", etc.

Interview transcripts were first coded inductively, allowing themes to emerge directly from the data. Then codes were organized into conceptual themes representing participants' perceptions of AI-authored breakup messages.

4   Result & Discussion

While some participants exhibited openness to AI for breakups, reflecting increasing technology use for emotional support, most still preferred offline breakups, aligning with prior research on face-to-face dissolution as more compassionate (Sprecher, Zimmerman & Abrahams, 2010)[14]. Identifying AI limitations mirrors recent critiques of ChatGPT's reasoning gaps and generalization difficulties, and favoring human nuance corroborates concerns about overreliance on imperfect AI (Gao et al., 2023)[15]. Additionally, gender differences in AI skepticism echo findings on women prioritizing emotional intimacy more in relationships (Lin & Wang, 2020)[16]. Overall, results suggest people recognize the potential benefits of AI in breakups but also its inherent limitations for navigating the emotional complexity of relationship dissolution. The following is the discussion on the classification of the collected results.

4.1   Accept AI breakups

People who accept AI generally fall into the following two situations: One is to use AI as a teacher or learning tool to help them master emotional knowledge they don't know

about. The other kind of person thinks that if AI develops in the future and is versatile enough and powerful, they will accept AI.

For an interviewee who views ChatGPT as a teacher, he may argue that the effectiveness of expressing the same content is vastly different between those who are good at speaking and those who are not good at speaking. However, using ChatGPT correctly can improve rhetoric and is an appropriate behavior. For example, some boys don't know how to express their love to their partners. Using artificial intelligence to express themselves is like seeking help from their best friend, which helps to better solve problems.

For an interviewee who believes that artificial intelligence still needs further development, he found that although the content of ChatGPT's letter is quite warm and sincere, it is also an extremely general letter because it does not provide any substantial evidence to enrich it. He thought it exposed a drawback of artificial intelligence today, which is the issue of data collection. The interviewer stated that in the future, when artificial intelligence can fully record all information about a person, including voice, speaking style, experience, etc., thousands of detailed data will help AI simulate a person who is close to being completely real. At this time, he can better utilize artificial intelligence to help him handle various intimate relationships (Male, two relationships, offline breakup, break up for about four years).

4.2   Not accept AI breakups

A viewpoint that does not accept AI breakups is expressed as since the irreconcilable contradictions and reasons behind the breakup, it is impossible to help reconcile based solely on a letter that is unknown whether it was written for oneself or whether it has genuine feelings. Such interviewees believe that the logic of ChatGPT is very hollow.

In fact, women's predominance in wanting a divorce (among couples who divorce) seems to have been consistent over time (Rosenfeld, 2018)[17].This is likely to reflect that in an intimate relationship, women are more focused on emotions and inner needs, and more sensitive to dissatisfaction or unhappiness in marriage. Women may be more inclined to take the initiative to seek a solution or a better sense of well-being, i.e., divorce. During the establishment of an intimate relationship, it is also likely to be the case in the subconscious of both men and women. This may explain to some extent why men can give an "I can be touched" answer when talking about electronic breakup letters, while women tend to indifferently put forward the idea that "what is written by AI is empty and meaningless". This is likely because women care more about an intimate relationship than men, and how the content of an email is written is often the best test of how much your partner values the relationship.

Another viewpoint can be summarized as the interviewee's belief that using ChatGPT to end a relationship is dishonest. They believed that emotional communication between partners should not be assisted by others or other tools, which was a manifestation of irresponsible and disrespectful self-feelings when facing their partners. Breaking up was considered something that required serious discussion, and artificial intelligence cannot do it.

Sprecher (2010) said open conversations are considered compassionate strategies. People pursue equality, authenticity, mutual respect, and ritualistic romantic relationships, crave spiritual solace, and do not want the intervention of AI or informal communication to affect the intimacy between two people. This also reflects people's distrust of AI and the future challenges of AI, namely: ChatGPT is often trained on large datasets, which can lead to overfitting and difficulty in generalizing to new or unseen data. And ChatGPT is slow to respond to text generated in real-time (Ray, 2023).

4.3   Summary

To conclude, people who choose to break up online and offline have the following different reasons:

<1> Online reasons include ① Avoid embarrassment; ② It won't be too uncomfortable; ③ There will be a lot of unexpected situations offline, such as easy to be soft-hearted, easy to hesitate and be irrational; and ④ Extremely avoiding communication in order not to face the partner and be angry.

<2> Offline reasons include ① It shows formality and respect; ② Avoid misunderstanding and the communication efficiency is high, since the emotions and expressions of the other party can be accurately perceived; ③ It shows sense of ceremony: in addition to respecting the relationship and partner, the offline meeting also proves that there is no concealment, and by the way, you can also see the "last face" of the other party; and ④ It is more specific and real, to face the problem head-on, and do not run away.

Even though the data from the survey shows that the probability ratio of people who are inclined to break up online and those who tend to break up offline is one-to-one, with the gradual deepening of the interview topic, most people's original intention is still inclined to choose offline breakup. Offline breakups are more likely to be adopted. Long-distance relationships and online dating are difficult to succeed given the reasons for weakening intimate relationships from a distance, which further leads most students to prefer offline breakups as online relationships are more likely not to be defined as successful relationships.

5   Conclusion

This study aimed to investigate college students' perceptions of ChatGPT in the context of writing breakup letters and analyze the reasons behind choosing online and offline breakup strategies. The results of the study highlighted several key findings. Firstly, it was observed that most participants did not oppose the application of AI such as ChatGPT in emotional scenarios. Some even accepted and were moved by the breakup letters written by ChatGPT, seeing it as a useful tool to help improve their communication skills in relationships. This suggests that AI has the potential to assist individuals in navigating online emotional problems. Secondly, the preference for offline breakup strategies was predominant among the participants. The findings also underscored the need for AI to further develop in order to address existing limitations.

However, there are some limitations involved in the experiment. In recent decades, communication has shifted from in-person to online (Alicea & Julians, 2020). In the video watched by the participants, the protagonist is a boy who writes an apology letter written by ChatGPT to a girl, which has a certain impact on the gender variable, because it may lead to the "preconception" (Black & Boyle, 2022)[18]. Else, each person's background information can be investigated in more detail to distinguish between them, such as whether they have been deceived by AI before.

Moreover, several fruitful avenues exist for further research. Larger scale quantitative studies could investigate correlations between relationship attitudes, breakup strategies, and AI receptiveness across demographics. Longitudinal designs examining changes in AI acceptance over time as the technology progresses would also prove informative. Additionally, future research should compare participant reactions to human-authored versus AI-authored breakup messages to directly assess differences. As AI language models become more sophisticated, continuing to probe perceptions of integrating this technology into intimate interpersonal domains remains imperative. How does reliance on AI for emotional tasks impact human behavior, norms, and well-being? While this initial study suggests openness to AI assistance, fuller understanding is needed to guide ethical development and usage of increasingly human-like artificial intelligence.

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