
When AI Meets the K-Pop culture: A case study of fans' perception of AI Private Call

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Abstract

In this position paper, we investigate K-Pop fans' perception of AI synthesized voices imitating their favorite idols' voices. Using 'AI Private Call' as a case study, in which fans listen to an idol's voice messages created by AI voice technology, we interviewed 15 real users who have experienced the service. Results show that the use of AI voices and the mechanics of the service conflicted with the fan culture where idols' contributions and social presence are highly valued. Moreover, fans were worried about the potential online harassment towards idols, which may be caused by users' inappropriate use, and data infringement of idols. Based on our findings, we discuss how the application of AI affects fan cultures, and how AI can be potentially designed for bridging the fan-idol relationship.

1 Introduction

Korean Popular Music (K-Pop) idols are entertainers rather than musicians. Not only do they produce sophisticated music as artists, but they actively promote themselves on social media such as by interacting with their fans directly [1]. For example, K-Pop idols live-stream themselves when they eat dinner and sometimes retweet fans' posts on Twitter. These communicative outlets across various social media allow fans to feel connected with their idols. Having active interactions with fans is a strategy to appeal to a number of fans, which helps K-Pop cultures expand around the world.

The K-Pop industry has been introducing several communication products to facilitate such connections. One such service is 'AI Private Call', which simulates personal phone conversations with idols for their fans. As the name suggests, the voice is reconstructed by an AI voice technology, which was trained with the idol's actual voice data. In the service, users can customize when they want to get a call, how intimate they want to be considered, and what nicknames they want to be called by [2]. Although fans are only allowed to listen to what the voice says, the message the AI voices gave in a call aims to give the feeling of talking with their favorite idols. The service ran between January 2021 and June 2022 by NCSOFT Corporation, and was discontinued.

The design of the AI service considers actual idols' communicative behaviors being favored by fan cultures. However, what is yet unexplored is how fans accept the fabricated voice and its mimicked behaviors. Fans have built their social identity around giving positive certainty. They form a unique perspective in connection with joint activities in 'fandom' [3]. Also, fans on social media are no more passive audiences endorsing media figures by merely consuming content. They actively perform fan activities through various channels (e.g., reproducing idols' video clips to fan-made content, writing comments on idols' social media) [4]. Moreover, They even behave to confirm the authenticity of idols' behaviors through cross-channel communication [5]. Misunderstanding users and their cultural

contexts may lead services or products to be dismissed [6]. Understanding their perception based on their cultural contexts would provide insights into designing AI synthesized voices as well as AI-based services for fan culture.

In this position paper, we explore K-Pop fans' perception of AI synthesized voices of their idols and how they perform (intimate behaviors towards a user) based on AI Private Call users' experiences. We discuss the cultures behind their perception to suggest how AI-based services should be designed to comply with fan cultures.

2 Methodology

We interviewed 15 ardent fans of K-pop idols who have used AI Private Call at least once (see Appendix A). Their use cases varied, from trying out the service to frequently using it in their everyday lives at the time of the study. We posted recruiting advertisements through popular fan communities and social media (e.g., Twitter, Facebook). In the interview, participants were asked about their experience and motivation for using the AI voice service. We analyzed the interview transcripts following an open coding method [7].

3 Conflict with Social Expectations of K-Pop Fan Cultures

3.1 AI service missing idols' contributions

In K-Pop culture, fans highly value the amount of effort idols put into creating content. For example, photo cards (printed photographs given when fans buy music albums) [8] are valued more if the photos are taken by idols themselves. However, the use of AI-synthesized voices meant that machines were creating the voices arbitrarily, without the idols' actual participation. This caused dissatisfaction among fans. P8 stated that they would prefer audio recordings over AI-synthesized voices, since idols would have recorded using their real voices to produce them.

Fans wanted to gauge their idol's contribution to training AI models (P1, P5, P7), and hoping to see the evidence of higher involvement of idols in providing content. P5 mentioned that if their idols told that they participated in writing the scenario of what AI voices said, they would have listened with more sincerity. As they do not have enough information about how their idols exactly participated in the process, they even tried to imagine how their idols contributed to the service to decide whether they would like to actively use the service. However, fans' awareness of the idol's contribution was overlooked; the company only provided videos of idols recording their voice to produce the model.

3.2 Meaningless communication behavior without idols' social presence

An important factor for fans in evaluating AI voices' communication behaviors was whether they could feel the social presence of the idols. According to P9, amount of idols' communication behaviors toward fans is an indicator of how idols think of fans. When idols interact with them frequently such as by replying to fans' comments on social media or calling their nicknames during live-streaming, they perceived that their idols show a high level of sincerity. If idols would be able to show intimate behaviors (e.g., calling a user's nickname) as AI Private Call do, they might be perceived as sincere behaviors. However, they knew that these intimate behaviors are driven by AI models, and not the actual idols. Thus, it was meaningless for fans to continue listening. Though the same message was communicated, whether it was generated by the idols or AI services mattered to fans.

Yet, acknowledgment by the idols and fandom made some fans pay attention to what the AI voices said. For example, when an idol - the owner of the voice - shared positive feelings about their AI voice's behavior, their fans found it funny that their idol had tried AI Private Call just as the fans did [9]. In addition, AI private calls were often shared within the fandom, just as like any other idol-related contents. Although AI Private Call was generally evaluated as unfavorable within the fandom, some participants said they would have enjoyed it if their fandoms considered the AI service positively and as sharable contents within them. These cases suggest fandom communities can have an influence on fans' perception of the AI voice and its communicative behaviors.

4 Perceived Potential Problems with AI Synthesized Voices

4.1 Abusing AI to Harm Idols

Participants expressed concerns that malicious users may spread rumors if users could generate idol voices on their own (P7, P8). In the real world, they observed many cases where K-Pop idols suffered from fake information (e.g., dating, pregnancy). *“I am concerned that some people may record it (AI idol voice) deliberately to claim that ‘I am his(idol) ex-girlfriend, and here is the list (of recording files) (...)’.* Since there are some people even spreading fake captures of personal messages these days, I am very concerned about the possibility of rumors produced by the AI voice.” (P7).

4.2 Infringing Idols’ Privacy

Another concern fans had was that the idols’ data privacy can be violated in the process of improving the quality of AI representation and designing interactions, as their personal information would be used (P5, P8, P10, P13). In general, K-Pop idols’ management agencies manage their idols’ publicity rights, which authorizes commercial use of personal identities in promoting commercial goods. As K-Pop fans generally know the processes and have observed problems caused by the agencies, they wondered whether the idols’ consent covers the creation of AI models. If AI models can generate arbitrary sentences, and if it is further developed as a back-and-forth interactive conversation service, it could say things that the idols may not agree with (P8, P10, P13). Also, to improve the AI voices’ accuracy such as consistency with phonetic personality or their speech style, they perceived that personal data will be required and idols have no choice but to provide it according to a contract even against their will. For instance, P5 predicted that AI voice models would require idols’ unconscious sound (e.g. sigh) to improve phonetic and prosody, and it would also require personal information to answer what fans ask naturally. P10 pointed out that the idols’ power to demand their rights varies depending on their career and popularity, thus new artists would not be able to claim their rights to control their personal data.

5 Discussion

In this paper, we explored K-Pop fans’ perception of AI-synthesized voices imitating idols’ voices and their behaviors. We found that the AI service had not been well-accepted because it conflicted with fans’ expectations of content in K-Pop cultures. They reported the design of AI Private Call overlooked fans’ central socio-cultural expectation: ‘authentic communication’ from the idols. In a parasocial relationship - a one-sided relationship between audiences and media figures - the audience expects media figures to be authentic [10]. K-Pop fans try to assess the authenticity of idols’ emotions through the presence of other similar content or social assessment with other fans [5]. However, replacing actual idols’ voices with artificial ones blurred the sense of authenticity. As relationships between celebrities and audiences are basically mediated by authenticity, making more realistic AI voices indistinguishable from actual idols’ voices may erode the trust between the fans and the idols. Future work can explore how to mitigate the sense of deception that fans experience, such as explaining where and how idols’ data is used to users.

If fans’ cultural contexts are considered in both AI voice technology design and interaction design about how it works for fans, we believe that potential opportunities to extend the fan base may open up. For example, BTS, a popular K-Pop boy band, introduced ‘Learn! Korean with TinyTAN’ by which K-Pop international fans can learn Korean by listening to idols’ AI synthesized voices [11]. This helps international fans who want to understand what idols say by lowering the language barrier. How AI can be applied to further support the fan-celebrity relationship can be a promising research theme.

On the other hand, the application of AI using idols’ data may intensify the commodification and objectification of actual idols, which has been pointed out as a serious problem in K-Pop culture. Most of fan services (e.g., Bubble in Lysn ¹) provide exclusive content by paid plans[12], and the paid services make fans demand justification for cost by idols’ behaviors. Therefore, many idols experience significant emotional labor and they are sometimes enforced to maintain their visual appearance to satisfy fans’ needs [13]. Many AI companies have provided paid plans to use their AI technology, AI Private Call is also provided for paid plan users in an application (UNIVERSE).

¹<https://apps.apple.com/us/app/lysn/id1425722238>

This may break cultural disciplines which fandom has been trying to protect. Therefore, institutional guideline protecting the cultures should be discussed within industries.

References

- [1] Beth Daley. K-pop fans are creative, dedicated and social - we should take them seriously, July 2019. Accessed: 2022-10-03.
- [2] Byung wook Kim. [time to play] ncssoft's k-pop platform universe ushers in ai voice subscription service, Feb 2021. Accessed: 2022-10-03.
- [3] Mark Duffett. *Understanding fandom: An introduction to the study of media fan culture*. Bloomsbury Publishing USA, 2013.
- [4] Kathryn E Ringland, Arpita Bhattacharya, Kevin Weatherwax, Tessa Eagle, and Christine T Wolf. Army's magic shop: Understanding the collaborative construction of playful places in online communities. In *CHI Conference on Human Factors in Computing Systems*, pages 1–19, 2022.
- [5] Rebecca Chiyoko King-O'Riain. "they were having so much fun, so genuinely...": K-pop fan online affect and corroborated authenticity. *New media & society*, 23(9):2820–2838, 2021.
- [6] Clifford Ivar Nass and Scott Brave. *Wired for speech: How voice activates and advances the human-computer relationship*. MIT press Cambridge, 2005.
- [7] Juliet Corbin and Anselm Strauss. *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Sage publications, 2014.
- [8] Yen Delfin. Why k-pop photo cards are more than just *investments*, Sep 2022. Accessed: 2022-10-03.
- [9] Twitter posting. https://twitter.com/GOTYJ_Ars_Vita/status/1403598124073906183. Accessed: 2021-08-30.
- [10] Neil M Alperstein. Imaginary social relationships with celebrities appearing in television commercials. *Journal of Broadcasting & Electronic Media*, 35(1):43–58, 1991.
- [11] Soyeon Yoon. [review] bts makes learning korean a dynamite experience, May 2021. Accessed: 2022-10-03.
- [12] Elizabeth de Luna. A guide to k-pop fan apps, Aug 2022. Accessed: 2022-10-03.
- [13] 19일 기다렸는데 셀카 한 장, 팬심 불모로 한 '유료 소통 플랫폼' . <https://www.msn.com/ko-kr/money/topstories/19%EC%9D%BC-%EA%B8%B0%EB%8B%A4%EB%A0%B8%EB%8A%94%EB%8D%B0-%EC%85%80%EC%B9%B4-%ED%95%9C-%EC%9E%A5-%ED%8C%AC%EC%8B%AC-%EB%B3%BC%EB%AA%A8%EB%A1%9C-%ED%95%9C-%EC%9C%A0%EB%A3%8C-%EC%86%8C%ED%86%B5-%ED%94%8C%EB%9E%AB%ED%8F%BC/ar-AAxaunX>. Accessed: 2022-10-03.

A Appendix

Table 1: Summary of interview participants.

PID	Gender	Age	The number of idols and their genders the participants subscribe to	Frequency of using
1	Does not wish to answer	24	1 (M)	Once in a week
2	F	23	1 (M)	Everyday
3	M	36	4 (F)	Once in a week
4	M	25	3 (F)	3-4 times in a week
5	M	34	1 (F)	Once in a week
6	M	20	4 (F)	Once in a week
7	F	30	1 (M)	
8	F	22	1 (M)	
9	F	29	2 (M)	
10	F	30	2 (M)	
11	F	20	2 (M)	less than 3 times
12	M	26	4 (F)	
13	F	20	1 (F)	
14	M	30	4 (F)	
15	M	27	4 (F)	