Artificial Intelligence in Communication with Music Fans: An Example from South Korea

Marija Polak
Catholic University of Croatia, Croatia
Matilda Kolić Stanić
Catholic University of Croatia, Croatia
Marijana Togonal
Catholic University of Croatia, Croatia

Abstract

According to Kotler, Kartajaya, and Setiawan, there are five components of marketing 5.0: it is data-driven, predictive, contextual, augmented, and agile. This paper uses the case study method to investigate the presence of the 5.0 marketing components in promotional strategies employed by the South Korean popular music industry. The paper explores promotional strategies used by the BTS music group in particular. The group uses the 5.0 marketing method in its promotional strategies, especially in communication with the fans, and such communication thus enters the field of public relations. The case study analysis also indicates the use of data-driven marketing and predictive analytics, which are achieved using artificial intelligence. Additionally, elements of contextual marketing were used to improve the consumer experience, and augmented marketing was utilized to facilitate business, especially for front office staff. Finally, the analysis of BTS's promotional strategies shows a focus on innovation and flexibility, which are elements of agile marketing.

Keywords: marketing 5.0; strategies; communication; artificial intelligence; culture; music
JEL classification: D8; M3; O3
Acknowledgments: The research for this article was conducted by Marija Polak to write her Master's thesis entitled "Innovative Strategies of Promotion on Social Media: An Example from a High-Tech Society (South Korea)." The thesis supervisors were Asst. Professor Marijana Togonal, Ph.D. and Asst. Professor Matilda Kolić Stanić, PhD. The thesis was defended in January 2022 at the Department of Communication Sciences, Catholic University of Croatia, Croatia.

Paper type: Research article
Received: 25 Mar 2022
Accepted: 23 Apr 2022

DOI: 10.54820/entrenova-2022-0006

Introduction

According to Castells, we live in the information age thanks to the fourth industrial revolution based on information and communication technologies (Castells 2000, 37). The same author emphasizes how new information technologies, with computers' help, connect the world in global networks and create virtual communities (Castells 2000, 56). The new paradigm, which is directly linked to information technologies, consists of five features (Castells 2000, 93-96): technologies act on the information (1); technologies have extended effects on all processes of human life (2); they encourage networking to gain the possibility to structure the unstructured (3), and at the same time it is possible to achieve flexibility (4). The last feature is the convergence of specific technologies into a highly connected system (5), with an important observation: the unique technologies that make up the system are almost indistinguishable. The last feature contributed to the technological convergence of the biological and microelectronic revolutions, or as Castells remarks: "only due to the enormous power of computers can decisive progress be made in biological research, such as the identification of human genes or parts of human DNA" (Castells, 2000; 95). On the other hand, research on neural networks and biological logic served as a base for developing electronic machines, and their boundaries are constantly shifting (Castells, 2000; 95-96). That leads us to conclude that artificial intelligence is becoming integral to new information and communication technology.

This is exactly how The Information Revolution is described at the turn of the millennium and is the foundation for the new global economy. The new economy is, therefore, informational because it depends on the creation, processing, and application of information, and it is also global because it is organized in global networks (Castells, 2000; 97). This is the key to understanding Marketing 5.0, inseparable from the global market and new information technologies.

But, our culture also consists of communication processes; communication is the key that mediates culture. New communication is electronic and integrates all forms of communication, from typographic to multisensory (Castells 2000, 399). The modern communication system led by digital social networks (Kotler, Kartajaya, Setiawan, 2017) produces real virtuality; it creates a fictional world "in which phenomena does not exist only on the screen through which the experience is communicated, but it becomes the experience itself" (Castells, 2000; 399). This paper will investigate exactly that: communication with the virtual community of fans of the Korean group BTS, which is one of the most popular music groups (if not the most popular) in the global music market of popular music culture. Conquering the global market would not be possible without information and communication technologies, as stated by Castells. Therefore, this paper will investigate the innovative communication strategies of this globally popular music group. These communication strategies primarily aim at BTS communicating with its virtual global fan community. As already mentioned, artificial intelligence is becoming part of new IT technologies. Therefore, the main hypothesis of this paper will be: BTS uses artificial intelligence in communication with its fans. BTS is considered a suitable case for analysis since they have elements that make them global and technological producers of popular culture.

Furthermore, since BTS are producers of a global cultural product, the theoretical framework of Marketing 5.0 offered by Kotler, Kartajaya and Setiawan will be applied to analyze their communication with fans. This marketing framework offers the application of new technologies and is described as data-driven, predictive, contextual, augmented, and agile marketing. All the mentioned aspects of

Marketing 5.0 are based on IT technologies and the features mentioned by Castells. Said aspects should also include the application of machine learning. The paper will apply the case study method for its analysis.

Artificial Intelligence in Public Relations and Marketing

The literature that deals with the research on the application of artificial intelligence in Public Relations and Marketing are not numerous. The author who significantly contributed to the understanding of the application of artificial intelligence in public relations is Manuelita Maldonado (2020). Maldonado points out that artificial intelligence enters almost all professions: in medicine, it is used for diagnostics, and its predictive capabilities are used, for example, in the business world, to forecast future results. Artificial intelligence is also used in sectors that are not directly related to communication (Korteling et al., 2021).

It is to be expected that artificial intelligence will be used more and more in the branches that are directly connected with communication (that is, they belong to the branches of information and communication sciences) and that it will change how the effectiveness of communication is measured or how we analyze our key publics (Maldonado 2020, iv). Suppose we add that public relations work on communication with people who now communicate daily and globally using technologies that include artificial intelligence. This suggests that artificial intelligence is becoming an integral part of public relations, which entails complex ethical issues.

What is artificial intelligence? There is no single definition of artificial intelligence (Gasser, Schmitt 2020: 142; Boddington 2017: 1). Therefore, the terms it includes: "intelligence" and "artificial" will be defined. Intelligence is "the ability to learn and apply knowledge or solve complex problems" (Donath 2020: 54). The term "artificial" indicates that it was "designed by human intention, not directly by evolution" and that a person is responsible for it (Bryson 2020: 15). Very simply, one could say that artificial intelligence is "the ability of a digital computer or computer-controlled robot to perform tasks normally associated with intelligent beings" (Copeland 2022). Artificial intelligence is therefore related to machine learning and the algorithms on which artificial intelligence systems are based, which in turn are created using machine learning (Maldonado 2020: 12). Algorithms allow machines to perform various complex tasks independently, including collecting and analyzing extremely large amount of data and creating various forecasts based on them (Boddington 2017: 2). Large corporations whose services are used by people all over the world every day, such as Facebook, Amazon, Apple, Google, and Microsoft use deep learning algorithms such as Google Search, Facebook News Feed, Apple Siri, Amazon Alexa (Maldonado 2020: 30, 55, 41, 72-74, Slee 2020: 108).

Although European research shows that only 3.3% of communication professionals use assistants or artificial intelligence devices in the office, such as Siri or Amazon Echo with Alexa (Zerfass et al. 2019: 61), there is an expected increase in the usage of artificial intelligence in public relations. In her work, Maldonado showed that artificial intelligence is already being applied in research of key publics, influencer marketing, crisis communication, and media relations.

Researching key publics on social networks with the help of AI can provide big data information about individual behavior, preferences, and interests (Mattern 2020: 258). Also, sentiment analysis using text analysis or natural language processing (NLP) (cited according to Pejić Bach et al. 2019: 11) can determine whether an organization's published content is positive, negative, or neutral. Maldonado believes that such application of artificial intelligence helps analyze public opinion, market research, reputation, or user experience and can more accurately segment

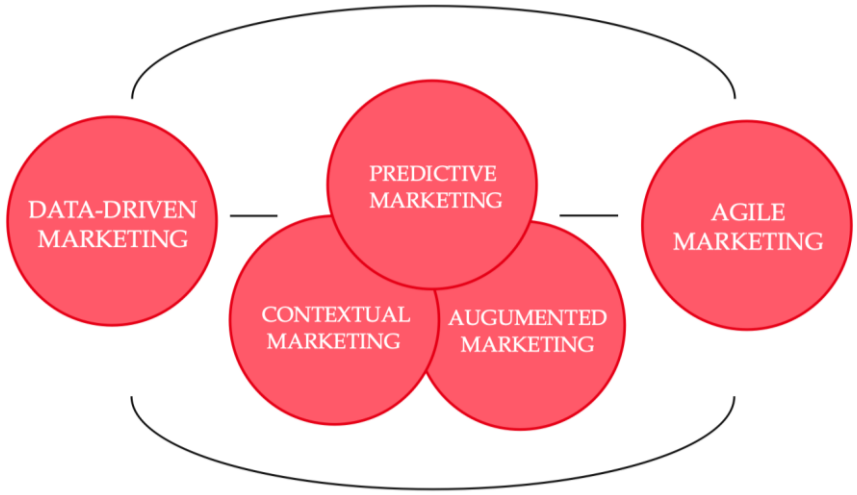
the public (Freberg 2022: 271). At the same time, accuracy is still the biggest challenge due to the complexity of human feelings. It is difficult for a machine to recognize sarcasm, non-verbal gestures, grammatical nuances or cultural differences, etc. (Maldonado Ardila 2020: 31).

Marketing 5.0

Artificial intelligence is entering the practice of public relations, and it seems that it has not only reached the marketing field more strongly in practice but has already entered theory. Thus, Kotler, Kartajaya, and Setiawan (2021) elaborated the theoretical framework of the new marketing they call Marketing 5.0, which we will briefly present in the following lines.

The new generation technologies that enable Marketing 5.0 are artificial intelligence, neuro-linguistic programming, sensors, robotics, augmented reality, virtual reality, the Internet of Things, and blockchain (Kotler, Kartajaya, Setiawan, 2021). Therefore, all the mentioned technologies of the new generation include artificial intelligence. These technologies enable marketing to be data-driven, predictive, contextual, augmented, and agile, as in the graphic representation below. (Figure 1)

Figure 1
Components of Marketing 5.0



Source: Kotler, Kartajaya, Setiawan, 2021

According to the same authors, data-driven marketing is collecting and analyzing large amounts of diverse data using new technologies (including AI) that enable safer decision-making. Such analytics represent the first step of Marketing 5.0. (Kotler, Kartajaya, Setiawan, 2021). The same authors emphasize that because of the collected data, it is possible, for the first time, to segment the market into individual customers. Thanks to the power of computers, that individual market can lead to detailed profiles, as detailed as we want. In doing so, the authors explain how big data is collected using algorithms from the media, social networks, web data, data from points of sale using Internet of Things (IoT) technologies, and engagement data - this is data collected from a continuous communication link between customers or companies; such as data from a call center, email or chat. Also, thanks to the enormous amount of collected data, segmentation becomes more dynamic because strategies can be changed almost on the go - that is, in real-time.

Another element of Marketing 5.0 is predictive analytics which uses machine learning and analytics to predict results even before moving into the campaign itself or to predict market movements. Here is also the case that most such analysis is performed by artificial intelligence (Kotler, Kartajaya, Setiawan, 2021). That analysis is done using machine learning that detects specific patterns and learns to create new current algorithms without relying exclusively on the basic ones. It's interesting how predictive analytics examines past customer behavior to predict future behavior. Therefore, marketers will need the help of statisticians and computer scientists to build models that work for their customers, product, or brand. Marketing experts often use predictive models such as regression modeling, collaborative filtering model, and neural network model (Kotler, Kartajaya, Setiawan, 2021).

Contextuality is the third element of Marketing 5.0, which identifies and profiles consumers, according to Kotler, Kartajaya, and Setiawan (2021). It allows them personalized interactions using sensors and digital interfaces in the sales phase. Due to the protection of consumers' privacy, the same authors explain that the technology does not identify faces and store their identities, but it collects the demographic characteristics of customers. For example, facial recognition technology is used to obtain demographic data such as age and race, and consumers' emotions. The authors also mention eye-tracking and motion sensor technologies that monitor customers' eyes and their movements to find out, for example, what the customer is interested in when looking at a certain product. This collected data from the store is combined with external data (such as weather forecasts, etc.) based on which artificial intelligence can select certain products and promotions to display on the screens of smart refrigerators (Kotler, Kartajaya, Setiawan, 2021).

This is not something brand new, as contextual marketing has been used in digital advertising for a long time (Kotler, Kartajaya, Setiawan 2017) - an example is the analysis of the web browsing history of consumers. With the Internet of Things and artificial intelligence, human scanning of the environment is imitated. People use their natural sensors to search for signs in the space around them (called situational awareness). Namely, by looking at people's facial expressions and gestures, they can conclude what other people think of them and how they are perceived by the environment in which they are. Kotler, Kartajaya, and Setiawan (2021) emphasize that smart sensors collect such data about people and then process it using artificial intelligence, which tries to learn human relationships.

The same authors provide examples of how AI learns and leads consumers to further interaction. Stores use Bluetooth sensors that receive data from customers' smartphones. Mobile phones generally have many applications and are connected to the Internet, making it easier to directly connect the sensor with the customer, especially if the customer has an app from the said store. Thus, if the customer is logged in to the app with a created personal profile, the sensor from the store can send him a notification (Kotler, Kartajaya, Setiawan, 2021). In addition to smartphones for communication with sensors, the authors also mention smart watches, headphones, and fitness straps, which can provide even more personal information about the customer. If the store has facial recognition technology, the customer can be shown ads based on this analysis - notifications adapted to mood, age, gender, time of day, etc. (Kotler, Kartajaya, Setiawan, 2021).

Furthermore, using facial recognition technology, marketers can get information about how the customer feels about their product since artificial intelligence can analyze human facial expressions in photos, videos, and live cameras. The same authors state that such a technique is already used in focus groups when testing ads

(Kellogg's example) or observing the cinema audience while watching a movie (Disney). In addition, a person's voice can be a way to recognize people and their feelings, so there are also experiments in mood analysis using brain waves (British Airways), according to Kotler, Kartajaya, and Setiawan (2021). Smart homes are also becoming an opportunity for marketers to collect data, and smart speakers (such as Amazon Echo, Google Nest, and Apple HomePod) powered by intelligent voice assistants (such as Alexa, Google Assistant, and Siri) stand out, the same authors say.

Augmented marketing improves the experience of employers and employees with the help of human-mimicking technologies such as chat robots or virtual assistants (Kotler, Kartajaya, Setiawan, 2021). Using such technologies enables better work of employees in two ways - to unburden them and to empower them with information that allows them to communicate better with their customers. If, for example, augmented reality (AR) is used, with which the customer can virtually try products (Sephora and IKEA) before buying them, it will be easier for employees to communicate with them because they have already become familiar with the product and their interest is greater (Kotler, Kartajaya, Setiawan, 2021). Furthermore, human-mimicking technologies such as chatbots or virtual assistants can relieve retailers from working directly with customers as they take on low-value tasks, and employees can focus on other, more important tasks. It looks like this - with the help of chatbots, the same authors state, customers can get the immediate solutions they need based on frequently asked questions from various databases processed by artificial intelligence. Of course, complex questions that virtual assistants cannot answer - are answered by people - either frontline retailers or customer service employees, and via email, live, or phone calls (Kotler, Kartajaya, Setiawan, 2021). Another goal of introducing AR into marketing is, as already mentioned, empowering workers with information, especially those in direct contact with the customer, the so-called frontline workers. With the help of smart technologies, they have an insight into all the data about the product and the customers themselves on the spot. In this way, they can immediately respond to customers in the physical store since it is still where the majority of retail sales in the world are realized, emphasizing Kotler, Kartajaya, and Setiawan (2021). Thus, employees give satisfactory answers to different profiles of people, so they don't have to guess what would appeal to which customer. Such a useful introduction of AR and AI technology realizes the concept of intelligence amplification (IA) - smart technology is used to increase human potential and intelligence, not to be a substitute or replica (Kotler, Kartajaya, Setiawan, 2021).

And finally, the authors Kotler, Kartajaya, and Setiawan describe agile marketing as one that uses decentralized, cross-functional teams that quickly shape, design, and develop a marketing campaign. Traditional pre-planning methods are no longer so effective considering the accelerated development, and everyone is turning to new technologies for easier analysis and forecasting. By collecting and analyzing data from various external databases (media, social networks, etc.) and internal data (from stores, warehouses, etc.), AI predicts changes in the market in real time, and companies that have flexible, creative, and fast teams can make great use of it (Kotler, Kartajaya, Setiawan, 2021). Although the term "stability" is still somewhat related to the success of a company, the authors explain, the term "agility" is gaining more and more important and is becoming a new "buzz word" of a new type of marketing. Therefore, it is not surprising that the cited authors believe that complicated structures and bureaucracy are the main enemies of such marketing.

This brief review of the literature shows that the topic is new in academic circles, that there is not much literature on it, and that research on the application of artificial intelligence is not numerous. All this contributes to the actuality and usefulness of this work for future research into artificial intelligence and communication.

Methodology

This paper uses the case study research method. This type of qualitative research method was chosen because it enables an intensive analysis of a selected unit (or system) in a defined time and space (Hancock, Algozzine, 2006: 9-11). A case study is suitable for the analysis of individuals, events, or groups and enables an in-depth understanding of the situation (Hancock, Algozzine, 2006: 11). A typical case study is the analysis of multiple sources of information about the selected situation to be investigated, and the results are of a narrative type and may include illustrative descriptions of the key moments of the case (Hancock, Algozzine, 2006: 10). A case study provides a broad view of the area to be analyzed, but also summarizes and interprets the collected information. This method is, therefore, often suitable for defining new questions and research directions in a certain area (Hancock, Algozzine, 2006: 47).

The main goal of this paper is to investigate whether South Korean popular music group BTS uses Marketing 5.0 elements in communication with their fans. According to Kotler, Kartajaya, and Setiawan, the elements of Marketing 5.0 are data-driven, predictive, contextual, augmented, and agile. The paper investigates BTS's special promotional communication strategies for fans over five years, from 2017 to 2022. We have taken into account a variety of sources available on the Internet. The criterion was that they relate to the communication strategies of BTS in that period: from social media posts to interviews and other publications in different digital media. South Korea is today considered an innovative and high-tech global leader (Song 2017). Also, Hybe, the South Korean company behind the promotional campaigns of BTS, has the title of the fifth most innovative company in 2020, also at the global level. BTS is currently the most popular global K-pop group and a representative of the Korean wave that is conquering the global popular culture market. These elements indicate that the communication strategies of BTS are an interesting subject of research into the application of innovative technologies in marketing.

Results

To present the results as understandable as possible, they will be explained through the previously mentioned five components.

Does BTS use data driven and predictive marketing?

Since 2017, when buying a BTS album, fans have received a card with a QR code that leads them to questionnaires. Fans also received these cards at concerts or when purchasing a larger product, such as a lightstick (iusheryce, 2019). These questionnaires are composed of general questions, not just about gender. For example: from which region is the fan, when was the album released, for what purpose they bought it, and so on.

Questionnaires were also thematic-based (BIGHIT_MUSIC 2017). For example, on the occasion of BTS's debut or the eve of a big tour, data is collected about which songs fans like, which songs they listen to when they are sad and which when they are happy, which songs they would like to hear on tour... Questionnaires often

contain several statements that examine fans' attitudes. For example, "I see myself as someone innovative," "I see myself as someone who has an active imagination," "I see myself as someone who likes to analyze and play with ideas," etc. (iusheryce, 2019).

QR codes and collecting fan memories of BTS are the core of the ARMYPEDIA 2019 project. This project allowed BTS fans to participate in a "treasure hunt" game, consisting of online and offline searching for pieces of a large puzzle (QR codes). When the puzzle's QR code was scanned, a specific date would be unlocked, opening up a BTS quiz question that could be scored. The fan gets the opportunity to write on ARMYPEDIA, for example, his memory related to BTS (ARMYPEDIA, 2022). In this way, fans create a large BTS and ARMY archive. The puzzle consisted of 2,080 pieces, marking the days from their debut on 13 Jun 2013 to 21 Feb 2019, when the game launched. This action collected messages of support and memories of BTS, and QR codes were published unannounced, mostly via the ARMYPEDIA Twitter profile (ARMYPEDIA, 2022).

A complete profile of BTS fans is obtained with the help of collecting data based on the voluntary responses from fans (not only on the analysis of fan behavior and their behavior on social networks). Such collection of a large amount of diverse data collected and processed using artificial intelligence indicates that BTS communication is data-driven. Such in-depth profiling of BTS fans enables the second element of marketing 5.0: predictability (iusheryce, 2019). This means that the collected data is processed and becomes the ground for the plans (the obtained data enable, for example, the selection of songs on a tour to be adapted to the taste of the fans of the region where the tour takes place).

Does BTS use contextual marketing?

The following findings testify to the existence of contextual marketing. With the introduction of the Play and Event Zone for K-Pop fans, going to a concert becomes an all-day experience. These zones allow fans to rest, eat and play games while waiting for the concert to start. For example, during the concert in Seoul (BANGTANTV 2020B), the event zone was entered with a special map (BTS.bighitofficial, 2019) on which offers for fans were highlighted, for example, a photo wall for taking pictures, buying a light stick (Weverseofficial 2020). This map directed them according to their interests. The BTS photo studio was also available for AR photography with BTS members (June 2019). In the same zone, they promoted the brands they cooperate with: VT cosmetics, LG's photo studio, Bodyfriend massage chairs in the Rest Zone, etc. Through the maps, fans could also get instructions for ATMs, medical assistance, and food and drink stands (Lim, 2021). Fans could also find out how long the wait is at a kiosk or photo studio. Such events were available and organized in Korea and Japan, and the plan was for Play Zones to become part of world tours. The idea is to turn the city where the concert is held into a music festival (bts_bighit 2022), a small "tourist village" where fans can not only go to the concert but experience everything - from sightseeing to food (Lim, 2022).

In addition, BTS POP-UP stores were launched, that is, stores that appear from time to time in different locations around the world offering BTS clothes, plush toys, figures, pillows, and other various promotional items (bts_bighit 2019). The first stores were announced on 27 Apr 2019 via @bts_official twitter in five cities – Los Angeles, Chicago, New York, London, and Paris (Hwang 2022). They worked from 30 Apr to 10 Jun 2019 during the BTS Love Yourself: Speak Yourself World Tour. After that, BTS POP-UP: HOUSE OF BTS opened on 18 Oct 2019 to 5 Jan 2020 in Seoul (BANGTANTV 2019) and BTS museum (Korea Now 2021). That store had exclusive goods from old and

new offers, such as TinyTAN - small BTS mascots (BANGTANTV 2020A). HOUSE OF BTS in Seoul also had a small AR zone available where visitors could play games (HYBE_MERCH 2019).

During 2021, that store also offered an entertainment show that was also available on the Weverse page, and the topic of the show was how BTS spends their time on vacation (Rearick, 2019; With, 2022).

Does BTS use augmented marketing?

BTS created an AR studio for their Love Yourself tour in collaboration with LG (Jeong, 2018). The Virtual Photo Booth allows fans to take pictures with BTS members using AR technology. Booth works by having a fan enter a room that has a couch and a large touch-screen in front of it. Entering, he chooses on the screen which member he wants to take a picture with, let's say with Jungkook, and sits on the couch (kaytlinxo 2019). After that, the screen shows Jungkook as he enters the room, greets the fan, and everything on the screen looks in reality as if Jungkook appeared. Junkook sits down next to the fan; they pose together twice and then greet him again, leaving, that is, disappearing. The fan then chooses the photo he wants to create and gets it printed. During the WINGS tour, these studios were available in Seoul, Newark, and Anaheim, and in 2018, for the Love Yourself tour, they were available at every venue (Jeong, 2018; BANGTANTV, 2022). Furthermore, the Korean language learning educational content was originally "Learn! Korean with BTS," which grew into "Learn! Korean with TinyTAN" (HYBE EDU 2021). Interactive books and a pen are provided, which makes it easier for users to learn pronunciation and read the Korean language (AR education).

Extended marketing can be seen in the extension of the artist's intellectual property (IP), so his direct cooperation is not required. For this reason, they cooperate with other companies working on developing artificial intelligence and non-fungible tokens (NFT) for the possibility of doing business and promotions without the direct involvement of BTS. NTF stands for a non-fungible token, a unit of data stored on the blockchain; it stands for the digital asset. Such technologies would be used for easier distribution and exchange and would be available through the Weverse platform. This is handled by a special independent subsidiary of Hybe - BigHit IP (HYBE LABELS 2020), which is in charge of planning and developing content related to intellectual property (Kang, 2022). Expanding the IP does not mean changing the human factor because BTS will continue to actively work on their songs, record videos, promote the album, and organize world tours (although they announced a break in June 2022). But short audio ads or tones for Samsung or LG will be created using extended IP, most likely with AI Supertone company (Stassen, 2021). According to the theory, applying human-mimicking technologies should improve the products and values consumers are looking for and facilitate employees' work (Kotler, Kartajaya, Setiawan, 2021). Such attempts are also visible in this example of the augmented IP artists.

The Big Hit IP team describes the creations like this: "TinyTAN means something different compared to BT21. If BT21 are children created with the imagination of the members, TinyTAN is something like their alter-ego" (Kwon, 2020). Creating a secondary IP provides images, music, videos, and other original IP opportunities to create characters, universes, and new music based on the source. That secondary IP creates a business model and revenues independently (Kwon, 2020).

Does BTS use agile marketing?

Agile marketing is evidenced by the established cooperation with Facebook in designing the TinyTAN theme for chats and stickers. The most recent collaboration is with the Forest application and Tamagotchi, which designs a special edition of that game (Ong, 2022). This mode of operation was announced when the BT21 and TinyTAN characters appeared. They were created in collaboration with the messaging application LINE, which has 200 million active users worldwide (Linefriends 2022). Thus, in 2017, the FRIENDS CREATORS 2017 project was launched as a collaboration between LINE FRIENDS and BTS (Herman 2017). On 17 Oct, the official BT21 channel published content showing the creative process of creating BTS characters and short animated videos with TinyTAN characters.

TinyTan animated BTS characters were first introduced on 13 Oct 2019, under the name BTS Characters, in a one-minute music video for BTS' song Idol (Cabugao, 2020). There are seven characters. Each represents one member, and their design follows the members' distinctive look for a particular era; clothes and hairstyles follow a specific album. TinyTAN characters are on many promotional items, such as clothes, figurines, mugs, and glasses. TinyTan icons are already an integral part of the Weverse platform. When one member posts content on Weverse, a small TinyTan avatar accompanies the content as an icon on the side (Weverse 2022).

In the end, one cannot fail to mention that one of the key levers for realizing the mentioned strategies - Weverse - is a platform designed by the HYBE corporation (BANGTANTV, 2021, HYBE LABELS, 2021). Fast Company chose Big Hit as the fourth most innovative company in 2020. This corporation has created its own digital platform to follow BTS members' posts, communicate with BTS members, synchronize music content, and shop online (BTSMerchUpdates 2019, Mehta 2020), watch free or paid video content (Frater 2020, Punt 2020).

Discussion

The popular South Korean music group BTS uses all five elements of marketing 5.0 in communication with their fans.

According to Kotler, Kartajaya, and Setiawan (2021), data driven marketing collects and analyzes large amounts of diverse data using modern technologies, including AI. This enables management to make more confident decisions, leading to predictive analytics - the second element of Marketing 5.0. This is exactly what the QR codes enable in the ARMYPEDIA project (ARMYPEDIA, 2022).

Furthermore, QR codes lead to questionnaires when buying a BTS album, at a concert, or light stick (iusheryce, 2019). Thanks to such questionnaires, fan databases contain fans' demographic traits, character traits, attitudes on various topics, and BTS songs and performances. (Chylinski et al., 2020: 374–384). This marked a shift from collecting data based only on the behavior of fans on social networks. The advantage is that direct fan responses provide a more detailed profile of a BTS fan. It is particularly interesting that this data also includes answers to questions such as: "Which song would you like to hear on the next tour?" Based on this data, which songs will be the best choice for a certain tour can be predicted. This introduces a new dimension of marketing 5.0, which is predictability. Thanks to the collected and processed data using artificial intelligence, predictive marketing can predict the campaign's results even before it starts or predict market trends (Kotler, Kartajaya, Setiawan, 2021).

Furthermore, contextual marketing identifies and profiles consumers and enables personalized interaction using sensors and digital interfaces in the sales phase (Kotler, Kartajaya, Setiawan, 2021), and this was achieved by the described introduction of the Play and Event zone for K-Pop fans when going to a concert: the event zone was

entered with a special map that would show fans what was on offer - from the use of light sticks at concerts to a photo wall for taking pictures or a BTS photo studio for AR pictures with BTS members, etc. (Lim, 2021).

Augmented marketing uses AR technology for positive effects for both the employer and the employees. For this purpose, augmented marketing, for example, uses human-mimicking technologies such as chat robots or virtual assistants (Kotler, Kartajaya, Setiawan, 2021). Thus, for the Love Yourself tour, in cooperation with LG, the already mentioned AR studio (Jeong, 2018) was created for AR pictures with members of BTS, the so-called Virtual Photo Booth. To remind, it is a space where a fan enters and chooses on the screen with which member they want to take a picture. It all looks like that chosen member of BTS sits down next to a fan, poses twice, then greets again and leaves. Such technology brings mutual benefits to both BTS members and fans. AR replaces BTS members, so it certainly makes their job easier because they don't need to be present at the photo shoot, and at the same time, more fans can take a photo together with their favorite BTS member using AR technology (Jeong, 2018; BANGTANTV, 2022).

An example of augmented marketing is the educational project of learning the Korean language. AR technology makes it easier for interested fans to learn pronunciation and read languages. And the extension of the artist's intellectual property (IP) in such a way that his direct cooperation is not required for a short audio advertisement or tone can be treated as an example of augmented marketing, as well as the implementation of NFT.

And finally, Kotler, Kartajaya, and Setiawan (2021) state agility as the fifth element of marketing 5.0. This refers to decentralized management and cross-functional teams that quickly shape, design, and develop new marketing projects. This could be seen in the cooperation of the Hybe corporation with Facebook in designing the TinyTAN theme for chats, but also in the Forest application with Tamagotchi to design a special edition of that game (Ong, 2022). Hybe has proven to be a flexible corporation because it leads the strategy of BTS so that it is not limited only to cooperation in the music industry but also expands to the gaming area, the animation industry, education, and to the latest technologies related to artificial intelligence (Stassen 2021). Furthermore, Hybe Corporation also designed Weverse - its digital platform (Weverse, 2022) and its applications (Song, 2017), and therefore it is not surprising that it belongs to the most innovative global corporations.

Although individual elements of Marketing 5.0 may overlap, all five elements of Marketing 5.0 were found in BTS's communication with its fans. In short, it is about innovation and using the latest technologies, including artificial intelligence.

Conclusion

With the development of the Internet and new technologies, new opportunities have opened up for marketing and communication experts. According to Kotler, Kartajaya, and Setiawan, a new marketing concept is proposed for the new digital age, which they call Marketing 5.0. This new marketing concept consists of five elements: data-driven, predictive, contextual, augmented, and agile. This paper investigated the presence of the mentioned five elements in communication with fans of the globally popular South Korean music group BTS. Using the case study method, the main research question was answered, and a conclusion was reached: the popular South Korean music group BTS uses elements of marketing 5.0 in communication with their fans.

The analysis confirmed the presence of all five marketing elements 5.0 in the observed period from 2017 to 2022. It turned out that BTS's promotional strategies are

designed based on the careful collection of large amounts of data about their fans, not only by analyzing fan behavior on social networks but also by direct responses to questionnaires via QR codes. Such a way enables the creation of a detailed and personalized database of many fans. Also, such a database enables predictability since it contains fans' answers to questions such as what song they would like to hear on the upcoming tour. The collection of such large and diverse forms of data, as well as the processing of such data with the aim of future predictions, is possible thanks to artificial intelligence.

Furthermore, communication with fans is contextual. This was demonstrated in the organization of the arrival of fans to the concert when fans both before and during the concert use sensors, such as light sticks, and digital interfaces, which enable the identification and profiling of fans arriving at the event. As previously stated, both: sensors and digital interfaces (as well as the interactive map) collect data about fans, then process them using artificial intelligence. In the same stage of arrival and during the concert, an improved and personalized interaction with the fans is realized using the processed data.

In communication and interaction with fans, BTS uses augmented reality technology to make the job easier, especially for those on the so-called front line, those who are in direct contact with the fans. For example, LG's AR studio (Jeong, 2018) serves this purpose, where fans can take photos using AR technology with BTS members, which also benefits the fans themselves since they are enabled to take individual photos with their favorite members of the BTS band, albeit only virtually. Also on the same track is the use of augmented IP of individual band members and the implementation of NFT, and it seems that AR technology was first used in the Korean language learning project.

The above examples of new technologies that include artificial intelligence, from questionnaires via QR codes, sensors, digital interfaces, and interactive maps to AR studios for individual photo shoots with your favorite BTS member, increase the interaction of BTS and strengthen parasocial relationships with fans. In the end, the promotional strategies of BTS show the innovation and flexibility of agile marketing, which is first of all noticeable in the numerous collaborations Hybe Corporation enters into.

Further research, especially of future projects of BTS or the Hybe Corporation itself, would certainly contribute to knowledge about new directions for using artificial intelligence in the music industry and, even more broadly - in the entertainment industry. The focus could be on how NFT will be implemented in music industry strategies and development. Furthermore, inevitable future research into the use of artificial intelligence in communication should be in the field of ethics and psychology. Also, a question arises for the art world, such as what is the limit of the augmented IP of artists.

The limitation of this research is certainly the panoramic view of BTS's communication with its global virtual fan community. For a deeper insight into the use of artificial intelligence in BTS's communication with its fans, it would be necessary to focus future research on individual elements of marketing 5.0. In conclusion, other methods, such as in-depth interviews with communication experts from the Hybe Corporation, would yield a lot of new knowledge.

References

1. BANGTANTV. (2021, August 30), [BANGTAN BOMB] "SUGA & Jimin Visit HYBE INSIGHT – BTS" (방탄소년단). YouTube. https://www.youtube.com/watch?v=xgBih4C7Lbw (April 13, 2022)
2. BANGTANTV. (2020 A , October 3), BTS (방탄소년단) "How To Enjoy a "Home-cert" with TinyTAN", YouTube. https://www.youtube.com/watch?v=90ncej-8cjA (April 15, 2022)
3. BANGTANTV. (2020 B, 4 Mar), [BANGTAN BOMB] BTS at CONNECT, BTS in Seoul - BTS (방탄소년단). YouTube. https://www.youtube.com/watch?v=0lAaH5q7GfA (17 Apr, 2022)
4. BANGTANTV. (2019, 8 Nov), [EPISODE] Welcome to 'BTS POP-UP : HOUSE OF BTS. YouTube. https://www.youtube.com/watch?v=wJokJjd-Auw (April 13, 2022)
5. Bryson, J. J. (2020), "The Artificial Intelligence of the Ethics of Artificial Intelligence. In: The Oxford Handbook of Ethics of AI. Eds. Dubber", D. Markus; Pasquale, Frank; Das, Sunit. Oxford University Press, New York, 3-15.
6. Boddington, P. (2017), "Towards a Code of Ethics for Artificial Intelligence", Springer International Publishing.
7. bts.bighitofficial. (2019, 19 Oct), "BTS WORLD TOUR 'LOVE YOURSELF: SPEAK YOURSELF" [THE FINAL] MAP. Instagram https://www.instagram.com/p/B3yZEYRhvCi/ (13 Apr, 2022)
8. BIGHIT_MUSIC. (2017, 1 Oct), "We are conducting a survey for BTS fans",_ Twitter. https://twitter.com/BIGHIT_MUSIC/status/914293796950523905 (13 Apr, 2022)
9. bts_bighit. (2019, 27 Apr), "BTS world tour pop-up store open", Twitter. https://twitter.com/bts_bighit/status/1121972593114800128 (13 Apr, 2022)
10. bts_bighit. (2022, 15 Apr), "BTS Permission to dance the city - LAS VEGAS", Twitter. https://twitter.com/bts_bighit/status/1514845981828804608 (13 Apr, 2022)
11. BTSMerchUpdates. (2019, October 24), "BTS fanclub members can order items online", Twitter. https://twitter.com/BTSMerchUpdates/status/1187241789138169857 (13 Apr, 2022)
12. Castells, M. (2000), "Uspon umreženog društva", [The Rise of The Network Society], Global marketing. Zagreb.
13. Cabugao, Gail. (2020, 30 Jul), "BTS' TinyTan makes their official debut", https://www.kpopchannel.tv/bts-characters-tinytan-makes-their-official-debut/ (13 Apr, 2022)
14. Copeland, B.J. (2021, December 14), "Artificial intelligence", Encyclopedia Britannica. https://www.britannica.com/technology/artificial-intelligence (13 Apr, 2022)
15. Chylinski, M. et al. (2020), "Augmented reality marketing: A technology-enabled approach to situated customer experience", Australasian Marketing Journal. Vol. 28. No. 4. pp. 374.-384.
16. Donath, J. (2020), "Ethical Issues in our Relationship with Artificial Entities", In: The Oxford Handbook of Ethics of AI. Eds. Dubber, D. Markus; Pasquale, Frank; Das, Sunit. Oxford University Press, New York, 53-73.
17. Frater, P. (2020, 14 Jun), "BTS' 'Bang Bang Con: The Live' Claims Record Viewership for Online Concert", Variety.. https://variety.com/2020/digital/asia/bts-big-bang-con-the-live-record-online-concert-1234635003/(13 Apr, 2022)
18. Freberg, K. (2022)," Social media for strategic communication", Sage. 2. edition. Thousand Oaks.
19. Gasser, U. Schmitt, C. (2020), "The Role of Professional Norms in The Governance of Artificial Intelligence", In: The Oxford Handbook of Ethics of AI. Eds. Dubber, D. M., Pasquale,F., Das, S. Oxford University Press, New York, 141-159.
20. Hancock, D. R., Algozzine, B. (2006), "Doing Case Study Research", Teachers College Press. Columbia University. New York and London.
21. Herman, T. (2017, 22 Dec), "BTS' Line Friends BT21 Collab Draws Thousand to Times Square Store in Opening Week" Billboard. https://www.billboard.com/music/music-news/bts-kpop-line-friends-bt21-collab-draws-thousand-to-times-square-store-korea-8078612/ (13 Apr, 2022)

22. HYBE EDU. (2021, 20 Apr), [Global Edition] "Learn! KOREAN with TinyTAN Book Package Official Trailer", YouTube. https://www.youtube.com/watch?v=78j1Rzwsv7M&t=19s (13 Apr, 2022)
23. HYBE LABELS. (2020, 13 Aug), "Big Hit Corporate Briefing with the Community" (2H 2020). YouTube. https://www.youtube.com/watch?v=MyGF8mFDMeI&t=1642s (13 Apr, 2022)
24. HYBE LABELS. (2021, 19 Mar), "Hybe: new brand presentation", YouTube. https://www.youtube.com/watch?v=zbuAIAoBbO0&t=1468s (13 Apr, 2022)
25. HYBE_MERCH. (2019, 19 Oct), "Welcome To Mi Casa", Twitter. https://twitter.com/HYBE_MERCH/status/1185360486113562625 (13 Apr, 2022)
26. Hwang, H. (2022, April 9), 라스베이거스서 먹는 붕어빵...상상초월 'BTS CITY' 직접 가보니[BTS in LV③]. https://newsen.com/news_view.php?uid=202204090842260410 (13 Apr, 2022)
27. iusheryce (2019, 1 Jul), "Taking bighit membership survey!" | |REACTION OF THE SPECIAL GIFT VIDEO! YouTube. https://www.youtube.com/watch?v=PjEquien8Ho (13 Apr, 2022)
28. Jeong, G. (2018, 6 Sept), "The Best Way To Experience The BTS World Tour: Take Photos With BTS And Send Them A Personal Message", https://www.soompi.com/article/1225547wpp/best-way-experience-bts-world-tour-take-photos-bts-send-personal-message-2 (13 Apr, 2022)
29. june (2019, 10 Apr), "How to apply to the BTS Studio Booth", YouTube. https://www.youtube.com/watch?v=j1KMbQqIK_0 (13 Apr, 2022)
30. Kang, I. (2022, 15 Apr), "NFTs in the Current Music Scene", Weverse. https://magazine.weverse.io/article/view?lang=en&num=378. (13 Apr, 2022)
31. kaytlinxo (2019, 5 Jun), "BTS LOVE YOURSELF: SPEAK YOURSELF TOUR WEMBLEY -- I ·SEOUL· PHOTO BOOTH W/ JUNGKOOK" ↣ (방탄소년단). YouTube. https://www.youtube.com/watch?v=h-1R73ptSFs (April 13, 2022)
32. Korea Now. (2021, 22 May), "Visit BTS museum! HYBE's new K-pop museum "HYBE Insight" in Seoul", YouTube. https://www.youtube.com/watch?v=Ih9GFLoqhRo (13 Apr, 2022)
33. Korteling, J. E. H. et al. (March 2021), "Human versus Artificial Intelligence", Frontiers in Artificial Intelligence. Vol. 4. https://doi.org/10.3389/frai.2021.622364 (13 Apr, 2022)
34. Kotler, Ph. Kartajaya, H. Setiawan, I. (2021)," Marketing 5.0: Technology for Humanity", Wiley & Sons. Inc. Hoboken. New Jersey.
35. Kotler, Ph. Kartajaya, H. Setiawan, I. (2017), "Marketing 4.0: Moving from Traditional to Digital", Wiley & Sons. Inc. Hoboken. New Jersey.
36. Kwon, Y. (2020, 6 Sept), "Meet Big Hit's creatives behind BTS-inspired TinyTAN", https://www.thejakartapost.com/life/2020/09/06/meet-big-hits-creatives-behind-bts-inspired-tinytan.html (13 Apr, 2022)
37. Lim, G. (2021, November 14), 방탄소년단 SPEAK YOURSELF 파이널 서울 올콘 후기. https://gelabts.tistory.com/entry/BTS-SPEAK-YOURSELF-Seoul (13 Apr, 2022)
38. Maldonado Ardila, M. (2020), "The rise of intelligent machines: How Artificial intelligence is transforming the Public Relations Industry", [A Thesis Presented to the Faculty of the USC Annenberg School for Communication and Journalism University of Southern California] USC Digital Library: http://digitallibrary.usc.edu/cdm/landingpage/collection/p15799coll89 (13 Apr, 2022)
39. Mattern, Sh. (2020), "Calculative Composition – The Ethics of Automating Design. In: The Oxford Handbook of Ethics of AI", Eds. Dubber, D. Markus; Pasquale, Frank; Das, Sunit. Oxford University Press, New York, 571-587.
40. Mehta, S. (2020, 3 Oct), "Millions of BTS fans use these 2 apps to connect and shop", No tech startups needed. Fastcompany. https://www.fastcompany.com/90457458/big-hit-entertainment-most-innovative-companies-2020 (13 Apr, 2022)
41. Ong, C. (2022, 18 Apr), "BTS TinyTAN Tamagotchi & limited edition vinyl figurines are available for preorder now", https://confirmgood.com/post/bts-tinytan-tamagotchi-available-preorder/ (13 Apr, 2022)
42. Pejić Bach, M. et al. (2019), "Text Mining for Big Data Analysis in Financial Sector: A Literature Review", Sustainability. Vol. 11. No.11. pp. 1277.
43. Punt, D. (2020, 22 Jul),"K-Pop sensations BTS set concert live stream record with Bang Bang Con: The Live". Guinessworldrecords.

https://www.guinnessworldrecords.com/news/2020/7/k-pop-sensations-bts-set-concert-live-stream-record-with-bang-bang-con-the-live-624548 (13 Apr, 2022)
44. Rearick, L. (2019, 29 Apr), "BTS Is Opening a Limited Time Pop-Up Merch Store." https://www.teenvogue.com/story/bts-pop-up-merch-store (13 Apr, 2022)
45. Slee, T. (2020), "The Incompatible Incentives of Private-Sector AI. In: The Oxford Handbook of Ethics of AI" Eds. Dubber, D. Markus; Pasquale, Frank; Das, Sunit. Oxford University Press, New York, 107-123.
46. Song, JK. (2017, 21 Dec), "Social media (SNS) marketing in Korea" https://medium.com/@punchkorea/social-media-sns-marketing-in-korea-f7435e3560ae (13 Apr, 2022)
47. Stassen, Murray. (2021, 25 Feb), "Big Hit invests $3.6m in supertone, an AI firm that just cloned a dead superstar's voice", https://www.musicbusinessworldwide.com/big-hit-invests-3-6m-in-supertone-an-ai-firm-that-just-cloned-a-dead-superstars-voice/ (13 Apr, 2022)
48. Weverseofficial. (2020, 18 Apr), "How to connect Official Light Stick for Weverse Twitter", https://twitter.com/weverseofficial/status/1251428957288755202 (13 Apr, 2022)
49. Linefriends, "About LINE FRIENDS", https://linefriends.com/ (13 Apr, 2022)
50. ARMYPEDIA. "About Campaign", https://www.armypedia.net/about.jsp (13 Apr, 2022)
51. With, Nat. (2022, 11 Feb), "BTS IN THE SOOP POP-UP STORE SINGAPORE" 방탄소년단 팝업스통어. YouTube. https://www.youtube.com/watch?v=Qa62btocNOU (13 Apr, 2022)
52. Weverse. Weverse BTS. https://weverse.io/bts/artist (13 Apr, 2022)
53. Zerfass, A. et al. (2019), Facts #2: "Artificial Intelligence in communications", Results of a survey across 46 countries. https://www.communicationmonitor.eu/2019/05/23/ecm-european-communication-monitor-2019/ (13 Apr, 2022)

About the authors

Marija Polak is a public relations and scientific research professional who graduated from the Catholic University of Croatia (Zagreb) in 2022. She got a master's degree in innovative promotion strategies, analyzing the implementation of marketing 5.0 in the South Korean entertainment industry, which continues to be her scientific interest. The author can be contacted at: **marija.polak5@gmail.com.**

Matilda Kolić Stanić, Ph.D., is a postdoctoral fellow at the Catholic University of Croatia (Zagreb). She graduated from the Pontifical University of the Holy Cross in Rome, where she got her Ph.D. with the topic "Fundamental criteria of public relations in codes of ethics. A comparison with the ethical criteria of journalism according to Luka Brajnović". Her research interests include the ethics of public relations, media relations, theory, history of public relations, and crisis communication. The author can be contacted at: **matilda.stanic@unicath.hr.**

Marijana Togonal is an Assistant Professor at the Department of Communication Sciences at the Catholic University of Croatia, where she teaches classes in language and communication. She graduated from the Faculty of Humanities and Social Sciences and defended her Ph.D. at the same Faculty in 2014. Her scientific interest is focused on language, public communication, and written tools for public communication. The author can be contacted at: **marijana.togonal@unicath.hr.**