Augmented Reality in Luxury Brand Communication in The Digital Transformation Process: L'Oreal Example

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Abstract

In recent years, the reflections of changes especially in information communication technologies have been encountered in almost all fields. However, the developments in internet and the transformations in internet-based applications are also noteworthy. It is possible to say that the communication process between the brand and the target group is also included in this new media environment and it is integrated with this process in internet (web) based applications. This harmony and adaptation process in luxury brand communication can be said to be relatively slower and more cautious than other brand types. However, it can be said that luxury brands have also started to adapt to digital applications, transformations such as augmented reality (AR) or artificial intelligence (AI). From this point of view, how luxury brands are involved in internet-based applications and the process of digital transformation along with it and its description based on the related applications form the main subject of this study. In the first part of this study, how the digital transformation is experienced within the framework of luxury brand communication, to what extent they can be included and their applications related to augmented reality will be described. In the second part, this application of L'Oreal brand, which is one of the limited number of examples, which especially uses augmented reality applications, is included and carried out at https://www.lorealparisusa.co the official web page will be subject to content analysis. In this sense, the content of web pages will be analysed. The aim of this research is to define the applications of augmented reality in the digital transformation process and to evaluate and reveal the relationship between them on the basis of the concerned sample in luxury brand communication. Since the related sample is in the report entitled "Global Powers of Luxury Consumption 2018", which is one of the researches that the Deloitte research organization makes intended for luxury brands, it will be analyzed in this study. In the related literature, the specificity of this study is important because of the relatively limited number of studies included in this study.

Keywords: *Luxury Brand Communication, Digital Transformation, Augmented Reality*

Dijital Dönüşüm Sürecinde Lüks Marka İletişiminde Artırılmış Gerçeklik: L'Oreal Örneği
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Öz

Son dönemlerde özellikle bilgi iletişim teknolojilerinde yaşanan değişimlerin yansımaları hemen her alanda karşımıza çıkmaktadır. Bununla birlikte internet alanındaki gelişmeler ve internet tabanlı uygulamalardaki dönüşümlerde dikkat çekmektedir. Marka-hedef kitle arasındaki iletişim sürecinin de bu yeni medya ortamında yer alması ile internet (web) tabanlı uygulamalarında bu sürece eklemlendiğini söylemek mümkündür. Lüks marka iletişiminde bu uyum ve adaptasyon süreci diğer marka türlerine göre görece daha yavaş ve temkinli olmaktadır denilebilir. Bununla birlikte lüks markaların da dijital uygulamalara, artırılmış gerçeklik (augmented reality/AR) ya da yapay zeka (artificial intelligence/AI) gibi dönüşümlere de uyum sağlamaya başladıkları söylenebilir. Bu noktadan hareketle, lüks markaların internet tabanlı uygulamalara ve beraberinde dijital dönüşüm sürecinde nasıl yer aldıkları ve ilgili uygulamalar üzerinden betimlenmesi çalışmanın ana konusunu oluşturmaktadır. Bu çalışmanın ilk bölümünde lüks marka iletişimi çerçevesinde dijital dönüşümün nasıl yaşandığı, ne denli dahil olabildikleri ve artırılmış gerçeklik ile ilgili uygulamaları betimlenecektir. İkinci bölümünde ise özellikle artırılmış gerçeklik uygulamalarını kullanan, kısıtlı sayıda örneklerden biri olan, lüks marka kategorisinde yer alan L'Oreal markasının bu uygulamasının yer aldığı ve yürütüldüğü https://www.loreal-parisusa.com resmi web sayfası konu ile ilgili içerik analizine tabi tutulacaktır. Bu noktada, web sayfasının içeriğinin analizi yapılacaktır. Dijital dönüşüm sürecinde artırılmış gerçeklik uygulamalarının tanımlanması ve lüks marka iletişimindeki söz konusu örnek üzerinden değerlendirilmesi ve aralarındaki ilişkinin ortaya konması araştırmanın amacını oluşturmaktadır. İlgili örneklem Deloitte araştırma kurumunun hemen her yıl küresel boyutta lüks markalara yönelik gerçekleştirdiği araştırmalardan biri olan "Lüks tüketimin Küresel Güçleri 2018" Raporunda yer aldığından, bu çalışmada analize tabi tutulacaktır. İlgili literatürde söz konusu çalışmanın dahil olduğu çalışmaların görece kısıtlı olması sebebi bu çalışmanın özgünlüğü önem taşımaktadır denilebilir.

Anahtar Kelimeler: *Lüks Marka İletişimi, Dijital Dönüşüm, Artırılmış Gerçeklik*

Introduction

Today, one of the areas where digital transformation is experienced and the effects are felt is confronted at the point of communication-luxury brand communication process. The brand communication processes where the digital applications take place as a communication tool are booming day by day. It is possible to say that the use of digital applications gained momentum especially in luxury brand communication processes. In today's communication environment where digital transformation process is taking place, it is possible to encounter remarkable applications. It is possible to mention many different types of applications, such as augmented reality, artificial intelligence applications, mobile communication channels. In this newly accepted communication environment, it is possible to see augmented reality application, which is one of the applications in digital transformation, in luxury brand communication processes.

Considering communication activities within the scope of luxury brand communication process, there are differences compared to other brand communication processes. When we look at the digital transformation process, it is possible to say that they are slower especially in adapting to internet-based applications than other brand types. However, in digital applications, the presence of luxury brands and different applications cannot be denied. The dramatic effectiveness of the augmented reality applications, which we confront together with the digital transformation and which form the basis of this study, is observed in the brand-follower communication and interaction processes. Augmented Reality is a new technological system that provides virtual content to the real world. It improves sensory perception of the user about reality. Augmented reality (AR) is an interactive technology that is increasingly used in the marketing environment and is generally developed in the formats of smart device applications. Augmented Reality (AR) is a variation of Virtual Environments or Virtual Reality, as more commonly termed. Virtual Media technologies attract the user to a completely synthetic environment. The user cannot see the real world around him when he is soaked in water. However, with the applications of augmented reality, there is the reality and feeling that we do not break away from reality and exist in life.

Augmented Reality Concept and Scope

Nowadays, internet can be considered as an extension of digital applications, but when it comes to usage practices, it can be said that it is more than expected. It is also noteworthy that information and ideas are exchanged, making each unit local and accessible. At this point, it is necessary to talk about its reflections in internet media and tools in parallel with all these developments. With the development of technological infrastructure, different dimensions of communication can be mentioned thanks to the internet. It is a hybrid reality in which the digital and the physical unite in combinations which fit us as humans (Hughes, 2012, p.3879).

Significant increase in the brand and marketing communication processes is observed in the applications of augmented reality (AR). It can be said that these applications basically emerge as an interactive technology used in retail communication and generally developed in the formats of smart device applications. In addition, it can be defined as an application that provides new possibilities for content presentation to consumers, with the ability to overlap with virtual elements such as information or images that can interact with the physical environment that exists in real time. As a result, it has the potential to influencing and modify a large number of consumer activities in which information search and product trials are conducted (Javornik, 2016, p.252).

Especially when we look at the related applications in the professional area, it is possible to say that virtual and augmented reality applications may be used in similar ways or instead of one another. At this point, it is necessary to underline this situation. Using virtual reality applications, the user uses the existing real-world "navigation commands" to position the head and eyes, rotate the body and walk towards something of interest (Jacob, 2006, p.1-2). In AR applications, it is seen that the real world is completed by virtual (computer-generated) objects that co-exist in the same space as the real world (van Krevelen, 2010, p.1). Hence, augmented reality can be expressed as a new technological system that enables the real representation of virtual contents to the real world in order to run the same representation and to increase the sensory perception of reality in real time. Augmented Reality (AR) is a variation of Virtual Environments or Virtual Reality, as more commonly referred to. Virtual media technologies attract

the user into a completely synthetic environment and the user cannot see the real world around him. In contrast, augmented reality allows the user to see dimensional virtual objects superimposed on the real world there (Eyüboğlu, 2011, p.115 as cited in Haller, Billinghurst and Thomas, 2007, p.10).

In another aspect, augmented reality can be defined as a set of techniques and tools that add information to physical reality. To date, it can be said that augmented reality practices are used in many areas such as medicine, entertainment, care, architecture, education and cognitive and motor rehabilitation (Giglioli, Pallavicini, Pedroli, Serino and Riva, 2015, p.1).

Augmented Reality (AR) is a natural complement to mobile computing, because a mobile AR system can help the user directly in various situations. Many studies have been done to create AR mobile installations using mobile personal computer hardware (Wagner and Schmalstieg, 2003, p.1).

Augmented reality (AR) applications offer a powerful user interface (UI), especially for context sensitive information environments. AR systems integrate virtual information into the physical environment of a human and thus enable them to perceive that information as they exist in their environment. Augmented reality relates to the concept of virtual reality (VR). VR tries to create an artificial world where one can interact and discover interactively, however AR also provides an interactive experience, but aims to support the real world rather than creating an entirely artificial environment (Höllerer and Feiner, 2004, p.221). At this point, the idea behind the AR can be defined as covering real life structures with artificial elements (Lee and Wong, 2019, p.14).

The characteristics of the interactive communication channels determined in the Javornik (2016, p.254) study are given below. (See Table. 1)

Table 1. Characteristics of Interactive Communication

Media characteristics of interactive technologies	Definition (author)
Interactivity / Interaction (interactivity)	Machine and personal interaction. Sensitivity and two-way communication (Song and Zinkhan, 2008)
Hypertextuality	Potentially high number of connected sources (Hoffman and Novak, 1996)
Method (modality)	Diversity of content presentation (Sundar et al., 2012)
Connectivity	Technological capability to expand and maintain a network model where many users can connect among themselves (Lister et al., 2008; Varadarajan et al., 2010)
Location-specificity	Technological capability to expand and maintain a network model where many users can connect among themselves. (Lister et al., 2008; Varadarajan et al., 2010)
Mobility	Portability and wearability allowing mobile use (Shankar and Balasubramanian, 2009; Varadarajan et al., 2010)
Virtuality	Combination of virtual elements in an environment created with computer graphics and digital video (Lister et al., 2008; Blascovich and Bailenson, 2011)

Source: (Javornik, 2016, p.254).

Descriptions of different communication tool (media) characteristics in the framework of augmented reality applications are shown in Table 2 (Javornik, 2016, p.255).

Table 2. Media Characteristics Applied to Two Types of Augmented Reality Tools.

	AR Applications in Smart Devices	AR Applications in fixed interactive environments
Interaction (Interactivity)	Middle to High	Mid to High
Hipermetinselik (Hypertextuality)	From low to high number of linked sources	Few linked sources
Method (Modality)	Video, text, image	Video, text, image
Connectivity (Connectivity)	A-few; a few-a few	One-several, One-to-many
Location - Specificity (Location to specificity)	Middle to High	Low
Mobility (Mobility)	Intermediate	Low
virtuality	Intermediate	Intermediate

Source: (Javornik, 2016, p. 252-261)

Azuma (1997, p.356) on augmented reality; In his study, he emphasizes some characteristics of augmented reality and characteristics that define

these technologies. These characteristics are grouped under three main headings:

- It combines real and virtual.
- Interacts in real time
- Three-dimensional applicable

Scholz and Smith (2016, p.151), in their work on augmented reality applications, focused on marketing studies involving 50 (fifty) augmented reality applications. As a result, they have introduced some paradigms for augmented reality practices in the relevant field. These paradigms and their characteristics are given in Table 3. Augmented reality is defined as designs that focus on creating a different and effective experience in consumer interaction.

Table 3. Four typical augmented reality marketing paradigms

AR Paradigm	Definition	Example
Active printing / packaging	Augmented goals are presented in custom and non-home advertisements - product packaging, catalogs or digital objects and other printed materials - often by user-triggered special devices.	IKEA promotional catalog featuring furniture presented with augmented reality that can reflect the users' room Cadburry quack Smack chocolate pack containing interactive game.
Fake / Imitation Window	The user's field of vision is enhanced by devices such as TV screens that are hidden by digital objects such as normal glass windows. The AR experience is usually initiated for the user who saw the AR experiment through a fake window.	The Pepsi Max shelter in a lively street scene with great images in the shelter (eg. UFOs, tigers), go through a secretly-hidden screen.
Geographical Layer	Together with digital objects connected or not connected to a particular geographic area, users can connect to increased areas with their personal devices.	Tokyo aquarium guide where digital penguins lead consumers to the attraction center.
Magic mirror	Augmented space or objects around users with digital objects can be a television screen or a normal mirror. The user can find himself either directly looking through a digital mirror or as part of augmented reality by viewing his actions from a third person's perspective on a screen.	National geographical channel shopping center campaign where users can interact with virtual cheetahs, dolphins and astronauts. Pepsi Max Monster Mirror campaign where user interfaces are turned into werewolves and evil clowns.

Source: Scholz and Smith (2016, p.151).

AR systems require environments that are carefully controlled, especially because they are based on closed loop monitoring. The user cannot walk and look where he wants; the system works only for specific objects, as seen from a limited viewpoint. Therefore, it can be stated that there is a need to investigate AR systems that can work in real world environments which are not structured both inside and outside (Azuma, 1999, p.380).

Over the past few decades it has been observed that electronic devices (eg, televisions, computers, etc.) have been adopted and their uses have increased, both at home and in businesses. In this way, it is undeniable that it provides great benefits to people. Augmented Reality (AR) is emerging as a newly developing technology that shows that individuals and many of their brands increase their interaction with each other, improve positive understanding and provide a unique learning experience (Bekaroo, Sungkur, Ramsamy, Okolo and Moedeen, 2018, p.279).

The existence of technological possibilities in the professional applications of brand communication cannot be denied. While these technological developments are often influenced by the needs or vision of the marketing field, developing technologies and marketing professionals provide access to unforeseen options for reaching and interacting with consumers. Handheld and wearable smart devices have enabled augmented reality (AR) technologies (ART), including AR hypermedia (ARH) print ads, in which mobile smart devices serve as viewfinders to place 2-D images on traditional print ads (Yaoyuneyong, Foster, Johnson and Johnson, 2016).

An alternative approach is through Augmented Reality (AR), the overlaying of virtual objects onto the real world. In the past researchers have explored the use of AR approaches to support face-to-face collaboration (Kato and Billinghurst, 2002, p.1).

Scholz and Duffy (2018, p.11) mentioned that augmented reality (AR) applications have the potential to reshape the mobile shopping experience and create more meaningful consumer-brand relationships in their study. In this study, they talked about adopting a more holistic approach to examine how consumer reality and consumer-brand relations can be facilitated. In another study, Yim, Chu and Sauer (2017, p.89); (AR) evaluate its effectiveness as an e-commerce tool using two products - sunglasses and watches. The research in the first part of the study focuses on comparing

the effectiveness of AR with a traditional website. The results obtained show that AR provides effective communication benefits by producing more innovation, immersion, enjoyment and usability compared to web-based product presentations, resulting in positive attitudes towards the environment and purchasing intent.

Augmented Reality in Luxury Brand Communication

The prevalence of digital media, digitally mediated interactions have become the essence of its landscape. The consumption of digital information, once upon a time, was related to virtual environments in which users have a virtual presence in the same way. Increasingly, virtual content is extracted from the synthetic worlds and physically assimilated; mediation technologies, in which individuals interact with it, become attachments to the physical self and point to profound changes in numerous areas of application (O 'Mahony, 2015, p.228).

Almost all of the luxury fashion brands such as Dior, Gucci and Prada have reconstructed their traditional sales and marketing strategies in order to make their digital communication channels and especially Web 2.0 environments and their brands fit for the future (Bjørn-Andersen & Hansen, 2011, p.2).

In today's competitive brand environment, there are striking changes in consumer brand selection and consumption patterns that lead to significant changes (Cuneo, Milberg, Alarcon-del-Amo and Lopez-Belbeze, 2019, p.117). From this point of view, these applications which also include digital applications enable brands to create product-oriented experiences for consumers, including entertainment, participation and interaction. (Eyüboğlu, 2011, p.116). In the process of brand communication, purchasing process with online stores can be said to gradually become more complex. Therefore, brands face new experiences in communicating with their consumers through the use of advanced technologies such as augmented reality practices (Pantano, Rese and Baier, 2017, p.81).

In one of the studies carried out for augmented reality applications, Poushneh and Vasquez-Parraga (2017, p.229); tried to examine the impact of augmented reality (AR) on retail user experience (UX) and its impact on user satisfaction and the user's willingness to buy. The results show that AR

significantly influences the user experience by affecting the various characteristics of the product quality and affects user satisfaction and the user's desire to buy.

Interactive technologies, which offer a different experience in the communication processes of brands, think that consumers have improved their shopping experiences and included them in communication plans. At this point, interactive kiosks and smart mirrors make use of special devices and software to explain, configure and recommend products.

They can be installed on a mobile device or used at retail outlets or on the go. In any case, augmented reality (AR) can support these goals by placing virtual content (eg new furniture) in a real environment (consumer's house) (Rese, Baier, Geyer-Schulz and Schreiber, 2017, p.306). As with luxury brands, it can be said that other brands try to create value among potential customers and their existing customers by offering such content and entertainment content to their followers / customers (van Noort & van Reijmersdal, 2019, p.16).

One of the upscale fashion brands, and especially using augmented reality applications, Burberry, Apple's augmented reality platform ARKit, enables users to enter the camera with a new feature developed for the mobile app. Users can digitally redecorate their environment using drawings. The AR feature also allows users to share modified photos on social media. ARKit is an augmented reality development platform for Apple's iOS mobile devices. Buberrypartner, along with ARKit, is an application which interacts with the camera of the users. The Burberry inspired drawings by Danny Sangra allows them to digitally redecorate their surroundings. The visuals of the application are shown below (See Picture 1).
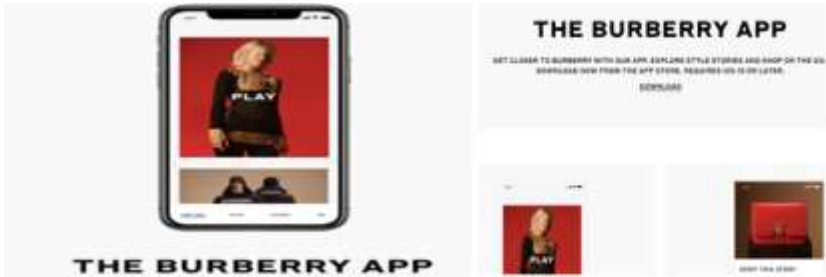
Picture 1. Burberry Application for Augmented Reality

In addition, Zara, another luxury fashion brand, comes up with an augmented reality shopping application. Followers or customers of the brand, after downloading the Zara AR application on their phones, can mark on the in-store catwalks through the boxes they buy online and through special images. In this way, it is possible to interact with the brand.
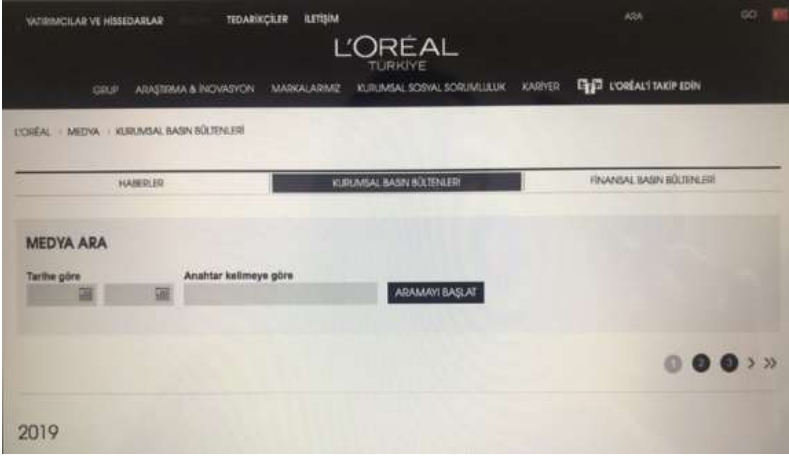
Research

The Aim of the Study

The transformation process and to evaluate and reveal the relationship between them on the basis of the concerned sample in luxury brand communication. In this way, it will be tried to describe how the application of augmented aim of this research is to define the applications of augmented reality in the digital reality is revealed.

Method

In the second part, this application of L'Oreal brand, which is one of the limited number of examples, which uses especially augmented reality applications, is included and carried out at *https://www.lorealparisusa.co.* The official web page will be subject to content analysis. The main purpose of content analysis is to reach the concepts and relationships that can explain the collected data. In this way, it is tried to identify the data and reveal the facts that may be hidden in the data (Yıldırım and Şimşek, 2013, p.259). At this point, for the purpose of the research, the content of the data on the webpage was evaluated.

The related sample is one of the research projects of Deloitte's research organization for luxury brands globally *Global Powers of luxury consumption 2018*. It will be subjected to analysis in this study since it has received a report from the report. The analysis focuses on how the luxury brand in question is adapted to this process and how it uses the augmented reality application on the official website.

The view of the official web page and the application where the analysis is performed is shown below.

Picture 2. L'oreal Offical Web Page (Augmented Reality Search)
Source: (http://www.loreal.com.tr/medya/kurumsal-basin-bult, 2019).

On the official web page, under the section titled Media section, they are listed in the news section. Information about the application and links are included when the related news is entered. The presented example of the application is shown in Picture 3 and Picture 4.

Picture 3. Augmented Reality Applications Publicity in L'oreal Official Web Page
Source: (http://www.loreal.com.tr/medya/kurumsal-basin-bult, 2019).

*Picture 4. Augmented Reality Applications Publicity in L'oreal Official Web
Page*
Source: (http://www.loreal.com.tr/medya/kurumsal-basin-bult, 2019).
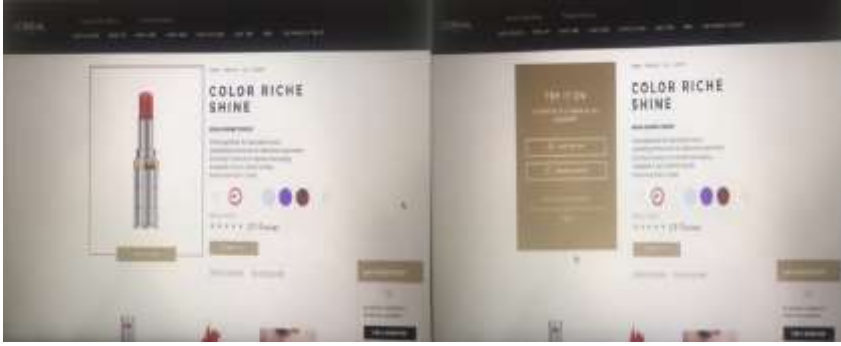
One of the augmented reality application of the brand, Genius applications enable customers to use their smartphone cameras to take their own photos and apply virtual L'Oreal products, such as lipsticks, nail polishes, to the image (the https://futurestores.wbresearch.com/loreal-augmented-reality-virtual-reality-in-store-experience-strategy-ty-, 2019). Within the scope of augmented reality application; When you enter the Makeup Genius App the Agmented reality application, you can see the presentation on the web page as below (See. Picture, 5,6) (https://www.loreal-paris.co.uk/products/make-up, 2019).

Picture 5. Augmented Reality Applications and Applications
Source: https://www.loreal-paris.co.uk/products/make-up, 2019)

Picture 6. Applications Ways for Augmented Reality
Source: (https://www.loreal-paris.co.uk/products/make-up/lip/lipstick/color-riche-shine-beauty-guru, 2019)

Findings

Picture 7. Modiface Applications for AR
Source: (http://www.loreal.com.tr/medya/kurumsal-basin-bultenleri/loreal-ile-facebook-arasinda-onemli-birligi-6138.htm, 2019).

Within the framework of this application, the L'Oréal brand has begun collaborating with Facebook in order to create new augmented reality experiences by purchasing Modiface, a company of augmented reality and artificial intelligence. With a connection established directly between the two platforms, it offers first-class technology to people around the world for the

first time. In this way, L'Oréal offers all consumers the opportunity to try the world-famous brands of makeup products such as Maybelline, NYX Professional Makeup, L'Oréal Paris, Lancôme, Giorgio Armani, Yves Saint Laurent, Urban Decay and Shu Uemura and creates a very different way to experiment. Lubomira Rochet, Head of the Digital Group of the L'Oréal Group, stated about this application: .... *We are in a period where technologies are mature enough and consumers around the world are very enthusiastic about using these technologies. .... The most attractive aspect of this partnership is that it allows us to further develop our experiences with users. This new development will be interesting to see how augmented reality will change the rules of creativity of our industry Bu* (http://www.loreal.com.tr/medya/kurumsal-basin-bultenleri/loreal-ile-facebook-arasinda-onemli-birligi-6138.htm, 2019). The first attempt was made in August 2018. For demo: https://www.facebook.com/beautiforallbyloreal/videos/190448966281354/ link is given in the related section.

An example of another related application; L'Oréal demonstrates how digital technology in Viva Technology Paris will change the future of beauty. In each area, L'Oréal brands exhibit the latest personalized products, connected devices and beauty services with AI and AR support (See Picture 8)

Picture 8. Macig Mirror Applications for AR
Source: http://www.loreal.com.tr/medya/kurumsal-basin-bultenleri/loreal-viva-technology-paris-2018de-yeni-bir-guzellik-deneyimi-yasatti-6123.htm, 2019

Smart mirror application allows you to try out the makeup and hair color in a virtual fashion and to make it look the appropriate makeup look for your clothes (http://www.loreal.com.tr/medya/kurumsal-basin-bultenleri/loreal-viva-technology-paris-2018de-yeni-bir-guzellik-deneyimi-yasatti-6123.htm, 2019). L'Oréal and Perfect Corp. have realized a global partnership for the integration of the award-winning beauty application YouCam Makeup and the makeup collections of L'Oréal brands (see Picture 9).
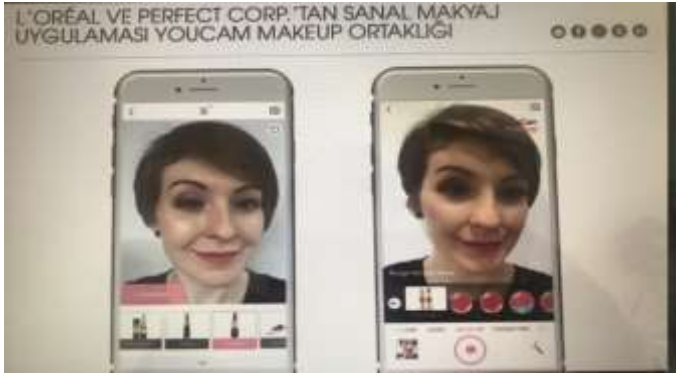
Picture 9. Virtual Applications
Source: https://www.loreal.com/media/news/2017/july/loreal-joins-perfect-corps-youcam-makeup-app

With customers and followers, they have the opportunity to experiment with the make-up collections of L'Oréal brands, to have information about the products and to make purchases via the application or store. This application, YouCam Makeup, App Store and Google Playcan be downloaded free of charge. The details of another application that can be accepted from the augmented reality applications included in the analysis and which are available on the web page are given below (See. Picture 10 and Picture 11). The details and findings for the respective application at https://www.lorealparisusa.com are included with the images below (www.loreal-parisusa.co, 2019).

Picture 10. AR Reality for Virtual Make Up
Source: (https://www.lorealparisusa.com, 2019)

Picture 11. AR Applications
Source: (https://www.lorealparisusa.com, 2019)

First of all, the products appear, then click on a page with only the own image of the product and 'on it *TRY ITON* ' is written. This writing is in the form of a link, and when you click on it the image is displayed next to it, this application is connected with the brand and the users can see their own faces on the screen. The experiencing of the selected product on their faces can be realized.

Conclusion

In the light of the findings obtained within the scope of the analysis, the augmented reality applications are are one of the most preferred and actively used applications in brand communication process. It can be said that

they include related applications in their brand communication processes within their luxury brands included in different categories in their brand classification. It has been observed that luxury brands, especially luxury fashion brands, use the augmented reality applications to adapt to the Internet-based applications relatively late compared to other brand groups. Therefore, it can be said that they meet and interact with their followers as well as their customers in this digital environment. It is seen that luxury brands are also involved in the digital transformation process. The results of the analysis are indicated with the form of the items below.

- It has been seen that there are augmented reality applications in luxury brand communication process and they are presented in web pages.
- Information sharing and related directions are carried out for the implemented applications.
- It is possible to say that official web pages of the luxury brand internationally and in Turkey shares held simultaneously for the relevant application.
- It can be said that they carry out two-way communication with the consumers / followers with the shares on the official web page.

Limitations

- The analysis was carried out in the luxury brand universe.
- The analysis was carried out for the official (TR) web page of the relevant luxury brand.
- Within the scope of the analysis, how the application of augmented reality is included and presented is evaluated from the corporate perspective.

Suggestions

- The analysis can be carried out comparatively for luxury brands and other brand classifications.
- Can be compared to different luxury brand categories.

- This analysis can also be carried out for official social media accounts.
- An analysis of the interaction between the augmented reality applications and the brand-follower can also be applied.

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