



Netflix's Machine Learning, Personalization, Culture Interaction and Its Evolution In Covid-19

Netflix'in Makine Öğrenimi, Kişiselleştirme, Kültür Etkileşimi ve Covid-19 Sürecindeki Gelişimi

Zeynep ERDOĞAN¹ 

ABSTRACT: This study examines how Netflix, which makes a big difference in the digital environment compared to its other competitors, gives importance to machine learning, personalization and gives direction to cultural studies for countries. In addition, the development of Netflix, its work and the increase in the number of views during the Covid-19 process, which heavily affects all sectors and businesses around the world, are discussed. In this context, Netflix, which carries out many studies such as artificial intelligence and machine learning in today's world, offers personalization services for its audiences and target groups. Netflix uses such activities to guide its work and continues to retain its users and reach new members. Netflix, which tries to know, follow and understand its target audience, is constantly in search of innovation. It acts with the approach of managing the process correctly, turning the crisis into an opportunity (Covid-19) and gaining the appreciation of its consumers. In this study, the development and progress of Netflix and its work are discussed. Netflix's foresight in its business, the tools it uses, its perspective and approaches are important in promoting and guiding both its competitors and businesses or brands in other industries. While these structures contribute to the practice, it is thought that they will also contribute to the literature. It presents a general framework about Netflix in the literature and discusses its different aspects.

Key Words: Netflix, Machine Learning, Personalization, Culture, Covid-19

¹ Res. Asst., Niğde Ömer Halisdemir University **e-mail:** zeyneperdogan@oho.edu.tr **ORCID:** 0000-0003-1712-3114

Atf/Citation: Erdoğan, Z. (2023). Netflix's Machine Learning, Personalization, Culture Interaction and Its Evolution In Covid-19. Intermedia International e-Journal, 10(18) 1-14. doi: 10.56133/intermedia.1066604.

Öz: Bu çalışma dijital ortamda diğer rakiplerine göre büyük oranda fark yaratan Netflix'in makine öğrenimi, kişiselleştirmeye önem verdiği ve ülkelere yönelik kültürel açıdan çalışmalara nasıl yön verdiği incelenmektedir. Ayrıca dünya genelinde tüm sektörleri ve işletmeleri ağır bir şekilde etkileyen Covid-19 sürecinde Netflix'in gelişimi, yaptığı çalışmalar ve izlenme sayısındaki artışla ilgili durumlar tartışılıyor. Bu durum çerçevesinde günümüz dünyasında yapay zeka, makine öğrenmesi vb. birçok çalışma yürüten Netflix, izleyicileri ve hedef kitlesi için kişiselleştirme hizmetleri sunmaktadır. Netflix, bu tür faaliyetleri çalışmalarına yön vermek için kullanmakta ve kullanıcılarını elinde tutmak ve yeni üyelere ulaşmak için çalışmalarını sürdürmektedir. Hedef kitlesini tanımaya, takip etmeye ve anlamaya çalışan Netflix, sürekli yenilik arayışı içindedir. Süreci doğru yönetme, krizi fırsata çevirme (Covid-19) ve tüketicilerinin takdirini kazanma yaklaşımıyla hareket eder. Bu çalışmada Netflix'in gelişim ve ilerlemeleri, yaptığı çalışmalar ele alınmaktadır. Netflix'in işlerindeki öngörüsü, kullandığı araçlar, bakış açısı ve yaklaşımları hem rakiplerini hem de diğer sektörlerdeki işletmeleri veya markaları teşvik etmesi ve yönlendirmesi açısından önemlidir. Bu yapılar uygulamaya katkı sağlarken aynı zamanda literatüre de katkı sağlayacağı düşünülmektedir. Literatürde Netflix'le ilgili genel bir çerçeve sunarak farklı yönlerini ele almaktadır.

Anahtar Kelimeler: Netflix, Makine Öğrenimi, Kişiselleştirme, Kültür, Covid-19

INTRODUCTION

Netflix, which has gained an important dimension and importance in the digital field from today's world, strives to have a structure that is innovating both in the competitive environment and in terms of innovation. It is constantly in an effort to reach its consumers as well. These efforts are of a continuous and dynamic nature. It shows itself in the works it does to understand its consumers, get to know them, and learn about their interests. It is seen that Netflix directs its work with the technological software it uses, strategic thoughts and tactical efforts. On the axis of all these situations, being fast and agile in every sector and every field of the competitive environment, it is a situation that should not be ignored that consumer-oriented work is an important situation in the activities to be carried out. It is an undeniable situation that knowing and understanding the needs and wishes of the consumers, knowing who they are, what they like and what they do not like, and carrying out studies accordingly increase the value of brands and businesses in the eyes of consumers. Netflix makes good use of personalization efforts. There is definitely a difficult and troublesome process in this situation. However, Netflix develops its work in this structure and directs its business strategies. It makes personalization estimations for its users. In this case, it presents its viewers with suggestions that offer movies, series and other videos that they will like (Bell, Koren & Volinsky, 2010).

It cannot be ignored that promotion activities for Netflix productions covers different and visual works according to the taste and taste of each user, work with professional teams, follow the technology and create their own dynamics in an agile structure. It also requires a significant effort to prepare its contents both globally and locally. Netflix is to carry out its activities in the most effective way to reach its users and potential users. In the competitive environment it is in, getting to know its consumers and making personal studies for them is an important factor in both positioning and providing competitive advantage. Netflix both shows itself in the traditional sense (such as advertising) and also to have more members, in order to gain an advantage over other competitors in the sector and directs its activities and platform contents with software such as algorithm artificial intelligence and machine learning. It is also stated that consumers find the Netflix platform attractive and impressive, both culturally and because of its work (McCord, 2016, p.2). Netflix strives to pay attention to details for a comfortable viewing experience for its subscribers. The user can play and pause, download the content ad-free, and have options according to their preferences, thus, it is the opposite of traditional television, which is financed by advertisers (González, Membiela-Pollán & Cortés-Cuns, 2020, p.263).

In this study, first of all, SVOD services will be mentioned, and then different structures of Netflix for its work will be discussed. Information about how Netflix directs its activities in general terms, what kind of work it does and which technologies it uses, is discussed as well as how it has a cultural impact, whether users in different cultures are affected by the language, habits, local screenings and contents of different cultures. In addition, examinations and evaluations are made about how the demand for digital space affects Netflix during the Covid-19 process. Issues such as Netflix's strong market share compared to its competitors, its customer-oriented studies by focusing on technology, its innovative and original works by differentiating from its competitors in digital and traditional environments, its internationalization thinking, and its mobilization in the Covid-19 process made this research be handled in the Netflix special. This research was carried out in order to evaluate the study within the scope of Netflix, to see the business model it built and the work it did in a theoretical framework.

1.SVOD ve OTT Services

Video on Demand; Internet, intranets and many more networks can be used. It is also a system that can be monitored using many different electronic devices. (itvdictionary.com/ 22.03.23). Video on Demand, a monthly subscription fee through these systems provides thousands of hours worth of TV shows, movies and documentaries to users around the world. Along with its ease of use, it is possible to access the content of the system at any time from anywhere with an internet connection. (Gürmeriç, 2019, p.55). Compared to Video-on-Demand, traditional television broadcasting, these services are more preferred by consumers around the world; In this way, the Video on demand market is becoming an environment that is increasing and expanding day by day. (Türdü, 2020). It is part of today's digital media ecosystem and has significant impacts on the television/movie industries. Video-on-Demand services are considered as the adaptation of classical television to the digital age with all the possibilities of the internet. (Gürmeriç, 2019, p.49-50). Video-on-demand (VoD) service offers customers a large movie environment where they can choose a movie to watch whenever they want (Almeroth ve Ammar, 1996, p.1110). VoD, There are multiple types of these services that provide an environment that consumers can access at any time: subscription-based video-on-demand (SVOD), pay-to-view video-on-demand (TVOD), ad-based video-on-demand (AVOD). (Park & Youngsun, 2019, p.21-22; Budzinski, O. & Lindstädt, N. 2018). Regarding Netflix, which is the subject of our study, SVOD, which is the service associated with VoD services, will be explained. Afterwards, information about OTT services will also be given.

Subscription Video on Demand(SVOD)

The international expansion of these Internet-based television providers VoD services has opened up new possibilities for global audiences. (Wayne ve Castro, 2021, p.897). SVOD is content accessible to consumers who sign up for a subscription to a particular service, allowing them to watch as much content as they want for a fixed monthly fee. Netflix, Disney+, Amazon Prime Video are examples of this genre. (www.advertising.amazon/ 22.03.2023).

Consumers' viewers' tendency towards SVOD services has increased relatively compared to traditional channels (Türdü, 2020). SVOD services enriches its "product/service" catalogs with documentary content they produce in line with digital platforms and audience policies. (Karşanbaş, 2022, p.152). SVOD Usually movie/programming packages are scheduled events. (itvdictionary.com/ 22.03.23).

SVOD is the most preferred VOD type by media companies today(uscreen.tv/ 22.03.2023). The Netflix platform, which is the subject of the research, was the most popular SVOD in the world in late 2019. (Wayne ve Castro, 2021, p.897). Subscribers can watch various movies or other video content without limitation. The SVOD model has been adopted by most OTT players, including Netflix, which only provides an SVOD service. (Jang vd., 2021, p.2).

Over The Top (OTT)

OTT is a service or application provided over the Internet. This covers a wide range of services available from the internet, including communication and messaging services (Skype, WhatsApp), audio and visual streaming services (Spotify, Youtube, Netflix and Amazon Video). (Aslan vd., 2022, p.4). Over The Top (OTT) services are provided via a wireless connection over the internet, predominantly via end-user's handheld devices such as smartphones, tablets and laptops(marketresearch.com/24.03.2023). Top media companies such as Netflix, Amazon Prime are transforming the collaborative relationship between media companies in the broadcasting market and the structure of the broadcasting industry. (Park & Youngsun, 2019, p.2). Netflix, which today serves as an OTT platform (Okumuş, 2023, p.114; Aslan vd., 2022, p.2). Netflix initially uses collaborations with over the top (OTT) providers to build a customer base before expanding its reach by forming new partnerships with legacy providers. (Wayne ve Castro, 2021, p.897). After 2016, Netflix has become one of the most popular global brands among many OTT platforms that continue to broadcast on the basis of domestic and foreign companies with a significant number of users worldwide and especially in Turkey(Okumuş, 2023, p.108). OTT video services can be defined as services provided by an online content producer (such as Netflix) over the infrastructure of an access provider that is not affiliated with the online content provider (Park, 2018, p.4645).

In general, OTT is concerned with the way in which content offered on the platform is presented to viewers (online delivery). VOD is how consumers can access content; that is, whether they access it with a single

purchase, by subscribing to a service, or by watching ads (advertising.amazon.com/24.03.203). Netflix, which has OTT services on digital platforms and is the most popular SVOD, is the main theme of this research. The business model of Netflix's work to date, the system it uses, its perspective on marketing and many more, and information on its features of being ahead of its competitors are discussed.

1. Netflix's Development

Founded in 1997 with the initiatives of March Randolph and Reed Hastings, Netflix was originally a website that only provided movie and DVD rental services. The service provided by Netflix consisted of ordering movies and DVDs by users through the website. The business process was as follows: Netflix would take an order from someone to rent its DVDs or movies and send the movie back to Netflix after the user watched it. The buyer pays the shipping fee (McFadden, 2020).

Netflix's activity, which started in California, has turned into a platform that serves in many countries of the world today. In 1998-1999, it started its subscription service with Netflix.com. This service has created the activity of renting movies and DVDs unlimitedly. By the 2000s, Netflix started to use a personalized movie recommendations system based on the ratings its members gave to the content they watched in the past in order to make accurate predictions about the future viewing of their subscribers. By 2003, Netflix had more than 1 million members. When the dates show 2005, Netflix showed a study for its own platform and developed the Profiles feature by creating different movie categories according to the different moods of the subscribers (Netflix, 2020). Netflix, which has been increasing in the number of its members from year to year (Lozic, 2021; Netflix, 2020), in 2007, it created a broadcast feature that allows its viewers to watch movies instantly. It started to show itself in the mobile environment in 2010. Reaching 50 million subscribers in 2014, Netflix worked in many countries during this time. By adding language features in 2016, it offered 21 different language options to its audience. Reaching 100 million members in 2017, Netflix released the top 10 list features in 2020 (Netflix, 2020). Netflix, which has been in many studies from 1997 to 2021, seems to be constantly improving itself with new features every day.

Netflix offers a free trial for a certain period of time to attract new customers and members. It also continues to work on improving the user interface as well as expanding its streaming content. This allows to increase the user/customer experience. One of the factors that causes Netflix's subscriptions to increase and grow is word-of-mouth. This helps bring in more new subscribers and increase Netflix members (Netflix Inc, 2021). Content made on Netflix causes word-of-mouth recommendations among members on different platforms (Instagram) and causes the content to become viral by certain audiences (Gleano, 2019). Netflix, which has more than 167 million users in more than 190 countries, easily makes sorting and classification of content, titles, movie genres, which is almost impossible in the traditional structure, thanks to the technology they use. Netflix's applications allow the user to predict titles/content/movies and many other alternatives that appeal to their individual preferences by watching them, and presenting them to the user (Netflix Inc, 2021). Thanks to algorithms, Netflix tries to get to know its audience better and make interesting content for them. In the algorithm function it uses, it works in the background to determine the user's areas of interest, find the watching time and what kind of watching habits they have (Sevindi & Katmer, 2020).

Netflix has a perspective and strategy development structure that considers customer retention important. For this reason, it carries out its activities by giving importance to many contents such as series and movies on its platform. It is stated that it is aware of the fact that the more it satisfies its users, the longer relationships it will establish. It monitors its members and potential audience in the digital environment and gets information about their preferences and opinions. At this point, it is seen that the most important factor in Netflix's success is the personalization features and strives. By taking into account the structure and uniqueness of each customer group, it creates different market segments and provides services. It treats the customer as an individual and offers Netflix users special / private contents (González, Membiela-Pollán & Cortés-Cuns, 2020).

Netflix continues to be active in order to bring all its content and works to users and many audiences. All the contents and works it has done for its clients has also changed the trend towards cinema in a significant way. Especially since the Covid-19 virus caused an epidemic in the world and closed people at home, it greatly affected

the activities and time spent at home. This situation limited the events and activities of the consumer outside the house by staying for a long time. Within the framework of all these situations, watching movies in the cinema was interrupted for an indefinite period, and it was seen that the watching of movies, series and documentaries shifted to the Netflix platform to a large extent. This process paved the way for Netflix to perform very productive works and turn the crisis into an opportunity.

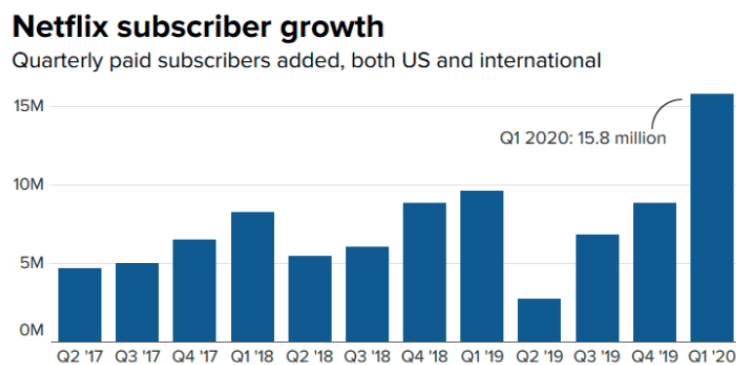
2. Netflix In The Covid-19 Process

Between the years 2019-2020 and with the ongoing process, the rapid spread of Corona virus throughout China and later on throughout the world has also had a great impact on social development by preventing many events, works and activities such as cinema, movies, TV series, sports activities (Moon, 2020, p. 8).

The pandemic, which caused a significant change in the entertainment and media sector during the pandemic process, entailed restrictions on the activities that people do outside the home and increased the commitment to the media. While this is the case, there has been a significant increase in television views, and it is seen that subscriptions, memberships and views on the Netflix platform have reached peak numbers (Seetharaman, 2020). With the increase in quarantine and curfews, consumers spend more time at home and have more free time, which has led to a change in their watching habits (Rahman & Arif, 2021, p.97). In other words, with shutdowns occurring around the world, consumers spent time digitally for entertainment (video on demand, streaming video and electronic selling). The trend towards digital entertainment accelerated in 2020 as revenue rose 31% to \$61.8 billion. Digital media accounted for more than three-quarters of total cinema, home/mobile entertainment revenue. In this process, Netflix has been the most watched platform throughout the year. (Forbes, 2021). While the Covid-19 virus affected the whole world, the increase in the time spent by the society at home affected the streaming. In particular, this situation is clearly seen on the Netflix platform (Rahman and Arif, 2021, p. 99).

When Netflix is compared to its worldwide competitors, such as Disney+, Amazon Prime Video, and HBO Max, the reasons for making a big leap especially during the pandemic process can be evaluated in many ways. The time spent at home has increased due to social distance and curfews during the pandemic period. This situation has also increased the activities to do something at home. It is known that the time spent by people watching movies and TV series has increased. (Statista.com/23.03.2023). In this process, Netflix provides marketing and advertising campaigns, fast and easy access, affordable prices, personalization methods, word of mouth, electronic word of mouth communication, taking quick action, providing movie/series genres for the tastes and wishes of the consumer, customer service and many other issues. It can be shown among the reasons to stand out from other competitors. But the most explainable of these reasons is Netflix's uninterrupted advertising campaigns. It is seen that it attracts people's attention by acting with an understanding of advertising that constantly shows and reminds itself, not only on TV, but also in youtube, internet platforms and social media advertisements.

Figure 1: Netflix subscriber growth



Source: Freiner, L. (2020, April 21). Netflix blows away new subscriber expectations. CNBC. Retrieved November 15, 2021, from <https://www.cnbc.com/2020/04/21/netflix-nflx-earnings-q1-2020.html>

Netflix, which has been observed to increase the number of users from year to year, is also a company with a continuous revenue increase (Lozic, 2021, p.85). Netflix, which has a significant rise in market value, has surpassed its rival Disney. It is seen in the results that many people prefer to watch Netflix in the case of quarantine. This situation is also reflected in Netflix's stocks. It means this caused an increase in Netflix's stocks. This is also mentioned in an interview with Pelin Diştaş, Netflix Turkey's original content director. She states that there has been a change in the viewing tendencies of consumers during the pandemic process and that it has reached wider groups both regionally and in terms of the age scale of the audience (Turan & Kudat, 2021, p.2).

Netflix stated that in the first three months of 2020, it reached 183 million subscribers. Netflix, which has a large share of the market; It is also in great competition with companies such as Disney+, HBO Max. It is seen that it recorded a record increase with 16 million subscriptions during the covid-19 process, especially by providing services on the internet to millions of people who are in the situation of staying at home (Aktan, 2020; Altan, 2020).

It can be said that the Covid-19 virus has a large share in the increase in the number of subscribers and views of Netflix (Aktaş, 2021, p.59). Although Netflix seems to be struggling with important rivals such as Apple, Amazon and Disney+ in the international video-streaming field, in an interview with Mitch Lowe, Netflix's CEO Reed Hasting mentioned the competition as follows: "People would watch more Netflix if they didn't need sleep. Our rival is sleep." expressed in his words. It seems that Netflix manages the pandemic process well and finds the way to turn the crisis into an opportunity quickly and agile. In all these situations, it is seen that it has great important to solve the problem of the consumer and make her time enjoyable, especially during the pandemic process.

3. Netflix's Machine Learning and Personalization Works

In this section, machine learning and personalization definitions are made and then how Netflix implements these studies is explained. Machine learning and personalization definitions and the importance of this field are mentioned.

3.1. Machine Learning

Machine learning is based on computers, artificial intelligence and data mining. Because the main sources of machine learning consist of computer science, statistics, artificial intelligence and more diverse fields. While obtaining "experience data" using algorithms based on these (Dimitrieska, Stankovska & Efremova, 2018, p.301; Naqa & Murphy, 2015, p.9), it also makes suggestions by trying to analyze large amounts of collected and existing data (Tjepkema, 2017). Machine learning, an advanced field of artificial intelligence, collects large amounts of data and enables it to create predictable, predictable algorithms over time. In other words, machine learning; It offers computer algorithms that can learn from the environment in order to solve the problem and reveal optimized results for the solution (Naqa & Murphy, 2015, p.9). Machine learning, a subset of artificial intelligence, explores the structure of data and adapts to models that can be exploited and understood by users. The effectiveness of the program improves automatically, thanks to solving a particular problem and experience (Shobha & Rangaswamy, 2018, p.197). The main function of machine learning is to use and analyze past data, to develop forecasts and strategies for the future. It determines that the results and findings are accurate, valid and real. Thanks to all these situations, companies can create profitable and useful works (Şanlıtürk, 2018, p.6). As machine learning is used in many areas, it is possible to see and give examples in the field of marketing and advertising (Aktaş, 2021, p.17). There are companies that support and invest in machine learning in order to attract more customers, take action and gain insights in the activities carried out. It is necessary to mention Netflix, which uses machine learning in its marketing activities in this area. Among one of the best applied machine learning in marketing field studies is Netflix (Yazar, 2016). In its works with a culture that improves itself day by day, Netflix constantly monitors and tests the behavior of consumers and viewers by using techniques such as artificial intelligence (Satır, 2020, p.183; Sevindi & Katmer, 2020, p.60). By using the historical data of the audience, Netflix makes movie recommendations for them (Dimitrieska, Stankovska & Efremova, 2018, p.301.)

Netflix states that it has invested heavily in machine learning to present its services, provide the consumer experience on an ongoing basis, and perform analytics. They express that using machine learning shapes

categories in movies and other options for content on the Netflix platform to be successful. With machine learning, it provides both video and audio encoding adaptation and optimizes the content distribution network. It offers significant effects on advertising activities to attract new viewers to Netflix as well (Netflix, 2021). Artificial intelligence helps marketers understand the interests of their customers and make personalization (Dimitrieska, Stankovska & Efremova, 2018, p.303).

3.2. Personalization

Personalization means the customization of all or some of the elements of the marketing mix individually, as well as being closely related to interactive marketing strategies (Montgomery & Smith, 2009, p.130).

Marketers are increasingly interested in personalization studies to help direct the work in their field, increase and improve the performance of the brand and business. In this respect, thanks to the developments in information and communication technologies, it opens new doors and offers opportunities both to collect and analyze consumer data and to use personalization more effectively in marketing studies (Vesanen, 2007, p.409). In other words, marketers need to anticipate what their customers want and do research on it. Generally, this situation can be used to find the needs and wishes of customers by using analytical tools, measurement and evaluation. In this context, it is closely related to the use of technology and its applications for personalization efforts (Montgomery & Smith, 2009, p.130). Personalized services allow us to contact the customer and stay in touch with the customer. Personalization constitutes an important structure to protect and maintain relationships with consumers and customers (Jackson, 1993, p.52).

Offering products and services along with personalization efforts is an important factor in creating unique and special experiences for a business. Such studies bring opportunities and customer experiences. It is an important factor in directing their works by ensuring that both the individualization of the consumer and the meeting of their personal needs are seen by businesses and brands (Pallant et al., 2021, p.1). The purpose of personalization is to adapt and tailor the standardized products or services of a company, business or brand to the individual needs of its customers, which it has and potentially wants to have. For this purpose, personalization efforts for the customer create an increasing value for the customer, while at the same time creating a profit for the manufacturer/business/service providers (Montgomery & Smith, 2009, p.130).

Businesses use a recommendation search engine on their online platforms in order to provide better service to consumer and customer groups and to increase their potential target audience, and for this, they need more personal data. Customers and consumers want brands to be aware of themselves, to know themselves, to know what they like and enjoy (Aktař, 2021, p.66; Zengin, 2021, p.703). It is important to read the data of its viewers and users and to offer content and suggestions for them. At this point, Netflix recognized that the user experience is an important business value and offers its services by making suggestions and recommendations in personalization studies. The personalization services it provides have a guiding effect on Netflix's work (Amatriain & Basilico, 2015, p.390). According to a survey conducted, companies and brands state that they are satisfied if they offer special advantages, experiences and suggestions to their customers by using their personal data in order to provide them with a better experience. Two out of three respondents (66%) state that they allow platforms such as Netflix, which offers personalization to their target audience, to use their personal data to offer recommendations on the videos and products they like. In addition, it is concluded that 70% of the participants are more comfortable if retailers, websites, streaming services, and service providers clearly and transparently indicate how and where they use the personal data they collect from customers (Derksen, 2016).

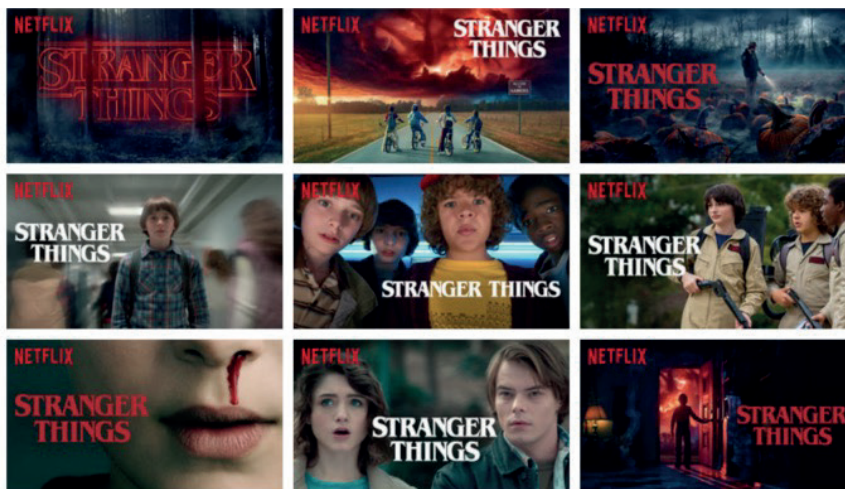
Figure 2: Consumer appreciate data control and transparency



Source: Derksen, J.R. (2016, October 13). Consumers Welcome Personalized Offerings but Businesses Are Struggling to Deliver, Finds Accenture Interactive Personalization Research. Accenture. Retrieved November 28, 2021, from <https://newsroom.accenture.com/news/consumers-welcome-personalized-offerings-but-businesses-are-struggling-to-deliver-finds-accenture-interactive-personalization-research.htm>

This means that members can search the Netflix platform with less effort, quickly find the content they will enjoy and watch more on the platform. In a study, it was desired to learn why they preferred Netflix according to the answers received from the people who participated in the survey. In the open-ended answers, it has been determined that the audience has a great convenience because of the feature of continuing where they left off while watching a movie, video or anything. It is also stated that it has a foreign language development feature. Thanks to the algorithms it uses, Netflix is able to detect the places where the viewer watches over and over again and fast forwards by following the content. Benefiting from the past viewing experiences of the user, it presents the content that is expected to be liked by the user (Sevindi & Katmer, 2020, p.70). Thanks to its personalization efforts, Netflix finds the interests of its users, members, customers and target audience and offers contents and suggestions to them. This also helps to expand the interests of its users over time. The more it realizes the wider it becomes, the more it enables them to have different views on the content and present movies and videos in front of the user. Within the framework of all these situations, the personalization algorithms used by Netflix and the content it offers and brings to its users, so that users do not waste time when searching on their own as well. Netflix believes that customers will make more and in different types and viewings if it presents contents that viewers will enjoy, interest and love. (Netflix, 2021). Netflix, which has become increasingly popular in recent years, is an important study of how it affects the audience through personalization. It is used as a marketing strategy to enable the personalization and customization systems to monitor the content determined by Netflix. In addition to these general inferences, the detailed results obtained in the study; Netflix's recommendation systems are used by users as a way to find/prefer the content to watch, and the interface is located in a way that directs them to their own recommendations and lists to find content. (Özel ve Özay, 2021, p.318).

Picture 1: Stranger things movie stills



Source: Chandrashekar A., Amat F., Basilio J. & Jebara T.(2017, December 7). Artwork Personalization at Netflix. Netflix Technology Blog. Retrieved December, 3, 2021, from <https://netflixtechblog.com/artwork-personalization-c589f074ad76>

Netflix directs personalization efforts by determining how often a user prefers different movie genres and themes. For example, someone who likes to watch romantic comedies may be very interested in romantic comedy movies. In this movie genre, looking at the popular actors, including their favorite people, in the study to be made for a movie proposal, the films of that actor or actors are also presented and recommended. It may be possible to attract consumers' attention to the different types of movies the actors play. Netflix states that it trusts the signs and data to provide the right message and insight (Chandrashekar, Amat, Basilio & Jebara, 2017).

4. Netflix In Culture Interaction

With its work in the digital age, Netflix continues to work to reach different consumer and audience groups from different regions and with different lifestyles. In this whole process, it develops itself in all systems such as artificial intelligence, machine learning, algorithm, big data, small data and so on, and carries out activities and personalization efforts to get to know consumers. It should not be ignored that Netflix also provides cultural interaction with its content studies and innovations. It is clear that it works with the approach of “think globally, act locally” (Sanna, Lundberg, Parks & Chang, 2010, p.1127).

Within the framework of this situation, a viewer living in a different country can reach the series, movies and many other works made by many different countries through Netflix. Netflix members can get to know a different country, learn about their food, habits and even how they react to a situation through movies. Users may also want to learn the language of another country. With the language options Netflix has, you can watch movies both with subtitles and by using dubbing features. This may even facilitate learning a new language (Büyükdumlu, 2021). Netflix seems to reach wider and more diverse audiences, both geographically and in terms of age groups (Turan & Kudat, 2021, p.2). In a research conducted the public between countries, it is clear that Netflix's contribution to the country and countries plays a very important role. In the study, which included America, India and eight other countries, it was concluded that people who watch Turkish movies on Netflix have a very high opinion of coming to Turkey and traveling. It also states that people who watch Turkish productions have sympathy for the country. In the further results of the research, 47% of the participants answered that they would not watch Turkish productions on the Netflix platform if I did not come across them, while this situation rises to 70% for the participants from France, Sweden and Brazil. (Turan & Kudat, 2021, p.4; Marketing, 2020). As the research shows, Netflix provides interaction between countries. At the same time, it provides the audience's desire to travel to that country or countries for touristic purposes. This is an inevitable situation that will contribute to the country's economy as well as its awareness. Globally, Netflix seems to act with a “local” perspective. It produces its content by using the values of that country in movies and series and reaches its audiences / potential consumers. In Net-

flix productions, interior, exterior, local people, the country's own celebrities, language, music generally add the values of the country. The aim is to contribute values peculiar to country to their contents in order to create the perception of Netflix "from us" and to create that feelings (Gülmez, 2019).

CONCLUSION AND RECOMMENDATIONS

Thanks to the services it provides, the Netflix platform reaches many customers in many countries and increases the number of subscribers. It is possible to attribute this success of Netflix to many reasons and factors. It is a fact that the work it has done during the Covid-19 epidemic has increased its awareness more. However, in addition to this process, differentiation from its competitors within the platform and its continuous use of technology, digital environment and information, and its customer-focused work, have been reinforced by making its users like it. Netflix is a company that develops, attempts and constantly improves itself from the beginning to the present. Netflix's catalog, cultural studies, brand awareness and market power can be seen in various ways in the breakthroughs and studies it has made from country to country. Netflix is a company with a direct subscription relationship with over 150 million customers. It appears to have a different attitude and stance than competing streaming and video providers (Lobato and Lotz, 2020). It continued to attract the attention of the audience by offering local content as well as offering global content to its users and potential consumers (Gülmez, 2019). It can be said that this and many other situations arise from Netflix's emphasis on acting by recognizing its customers, personalization efforts, company culture and the technological studies it uses. It is observed that creating user experience is among the important factors in increasing the number of subscribers of Netflix thanks to the diversity and accessibility on the platform. Personalization efforts contribute at this point.

In a study, it is stated that when users want to watch a movie, they first act by looking at whether it is on Netflix. There are opinions that Netflix is their first search choice. It is seen that these behaviors and views towards Netflix also affect situations such as going to the cinema. When Netflix and cinema media are compared, it can be said that the most important factors for viewers to choose Netflix are time, ad avoidance, comfort space, affordable price (the price paid for a movie, almost a monthly subscription fee of Netflix), and personalization efforts (Akıncı and Baser, 2020). Netflix, the video, streaming works and services it provides in the sector, make it different from its competitors. The main reason for this is its continuous improvement and development (kaizen), its consumer-oriented studies using structures such as algorithms, artificial intelligence, machine learning, and Netflix, a global brand and company, also attaches importance to local textures in its series and films. Competitors in the industry should benefit from Netflix both in the application of technical and systemic studies such as algorithms, artificial intelligence, machine learning, and in their experience, personalization, visibility and many other works by getting to know their consumers. It should not fall behind on a sectoral basis by following Netflix's strategy and work. Netflix's current developments and working principles also reveal its marketing power. It is thought that this study will contribute to the direction of its work by providing insight into applications operating on digital platforms.

REFERENCES

- Aktan, S. (2020, November 13). *Covid-19 salgınında Netflix'e yaklaşık 16 milyon abonelik rekor artış*. Euronews. <https://tr.euronews.com/2020/04/22/covid-19-salg-n-nda-netflix-e-yaklas-k-16-milyon-abonelik-rekor-art-s>
- Aktaş, A.D.A. (2021). *Dijital Platformda Kullanılan Yapay Zeka Teknolojilerinin Kullanıcı Motivasyonları Üzerinden İncelenmesi: Netflix Örneği*. (Published Doctoral Thesis) İstanbul Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul
- Akıncı, S. & Başer, E.(2020). Reklamdan Kaçınma Bağlamında Geleneksel ve Modern Film İzleme Ortamlarının Genç İzleyiciler Üzerinden Karşılaştırılması: Netflix ve Sinema Salonları Örneği. *Erciyes İletişim Dergisi*, 7(1). pp. 473-486
- Almeroth, K. C. ve Ammar, M. H. (1996). The use of multicast delivery to provide a scalable and interactive video-on-demand service. *IEEE Journal on Selected Areas in Communications*, 14(6), 1110-1122.
- Altan, S. (2020, April 22). *Netflix, Salgın Sayesinde Yaklaşık 16 Milyon Yeni Abone Kazandı*. Pazarlamasyon. <https://pazarlamasyon.com/netflix-salgin-sayesinde-yaklasik-16-milyon-yeni-abone-kazandi/>
- Amatriain, X. & Basilico, J. (2015). Recommender Systems in Industry: A Netflix Case Study. F. Ricci et al. (Ed.), *Recommender Systems Handbook*, New York: Springer. DOI 10.1007/978-1-4899-7637-6_11
- Aslan, Ö., Sadıç, F., ve Kanbur, Y. (2022). The Boosting Effect Of Covid-19 Breakthrough İn Digital Broadcasting. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, (48), 1-14.
- Bell, R. M., Koren, Y. & Volinsky, C. (2010) All Together Now: A Perspective on the Netflix Prize, *Chance*, 23(1), pp. 24-29, DOI: 10.1080/09332480.2010.10739787
- Budzinski, O., & Lindstädt, N. (2018). The new media economics of video-on-demand markets: Lessons for competition policy. *Ilmenau Economics Discussion Papers*, 24(116).
- Büyükdumlu, Ş. (2021, January 22). *Netflix'le, 6 Adımda Yabancı Dil Öğrenme Rehberi*. Pazarlamasyon. <https://pazarlamasyon.com/netflixle-6-adimda-yabanci-dil-ogrenme-rehberi/>
- Chandrashekar, A., Amat F., Basilico, J. & Jebara, T. (2017, July 11). *Artwork Personalization at Netflix*. Netflix Technology Blog. <https://netflixtechblog.com/artwork-personalization-c589f074ad76>
- Derksen, J.R. (2016, October 13). *Consumers Welcome Personalized Offerings but Businesses Are Struggling to Deliver, Finds Accenture Interactive Personalization Research*. Accenture. <https://newsroom.accenture.com/news/consumers-welcome-personalized-offerings-but-businesses-are-struggling-to-deliver-finds-accenture-interactive-personalization-research.htm>
- Dimitrieska, S., Stankovska, A. & Efremova, T. (2018). Artificial Intelligence And Marketing, *Entrepreneurship*, 7(2). pp.298-304.
- Forbes. (2021 April 13). *The Impact COVID-19 Had On The Entertainment Industry In 2020*. <https://www.forbes.com/sites/bradadgate/2021/04/13/the-impact-covid-19-had-on-the-entertainment-industry-in-2020/?sh=3e78cc1f250f>
- Freiner, L. (2020, April 21). *Netflix blows away new subscriber expectations*. CNBC. <https://www.cnbc.com/2020/04/21/netflix-nflx-earnings-q1-2020.html>

- Gleano, S. (2019, January 25). *Tus series de Netflix, en Instagram Stories: la plataforma de streaming se hace más social*. Marketing ecommerce. <https://marketing4ecommerce.net/series-netflix-en-instagram-stories-mas-social/>
- González-Chans, C., Membiela-Pollán, M. & Cortés-Cuns, M. (2020). Relationship marketing and brand community: the case of Netflix. *Revista de Marketing Aplicado*. 24(2). pp. 251-274.
- Gülmez, E. (2019). Netflix'in Türkiye'ye Özgü Reklam Filmlerinin Küresel Markaların Yerel Reklam Stratejileri Bağlamında Değerlendirilmesi. *Erciyes İletişim Dergisi Uluslararası Dijital Çağda İletişim Sempozyumu Özel Sayısı*, (1). pp.157-178. DOI: 10.17680/erciyesiletisim.485435
- Gürmeriç, C. (2019). Behavioral changes of the audience by the algorithmic recommendation systems inside video-on-demand platforms considering the example of Netflix. Doctoral dissertation, İstanbul: Bilkent University.
- Jackson, D. W (1993). Relationship Selling: The Personalization of Relationship Marketing. *Australia Marketing Journal*, 2(1). pp.45-54.
- Jang, M., Baek, H., ve Kim, S. (2021). Movie characteristics as determinants of download-to-own performance in the Korean video-on-demand market. *Telecommunications Policy*, 45(7), 102140.
- Karşanbaş, L.(2022).Dijital Platformlar ve Belgesel Sinema. *Maltepe Üniversitesi İletişim Fakültesi Dergisi*, 9(1), 152-156.
- Lobato, R. and Lotz, A. D. (2020). Imagining Global Video: The Challenge of Netflix. *Journal of Cinema and Media Studies*, Spring. 59(3). pp.132-136. DOI: <https://doi.org/10.1353/cj.2020.0034>
- Lozic, J. (2021). Financial Analysis Of Netflix Platform At The Time Of Covid 19 Pandemic. *International Scientific Conference on Economic and Social Development*, 25(26), pp.78-86.
- McCord, P. (2016). How Netflix Reinvented HR. *Harvard Business Review*. pp.1-14.
- McFadden, C. (2020, January 4). *The Fascinating History of Netflix*. Interesting Engineering. <https://interestingengineering.com/the-fascinating-history-of-netflix>
- Moon, S. (2020). Effects Of Covid-19 on The Entertainment Industry. *International Digital Organization For Scientific Research Journal Of Experimental Sciences*. 5(1). pp. 8-12.
- Montgomery, A.L. & Smith, M.D. (2009). Prospect for Personalization on the Internet. *Journal of Interactif Marketing*. 23. pp. 130-137.
- Naqa, I.E. & Murphy, M.J. (2015). What Is Machine Learning. *Machine Learning in Radiation Oncology: Theory and Applications*. Springer International Publishing Switzerland. pp. 1-11
- Netflix.(2020). *History of Netflix*. Netflix. <https://media.netflix.com/tr/about-netflix>
- Netflix. (2021). *Machine Learning- Learning how to entertain the world*. Netflix. <https://research.netflix.com/research-area/machine-learning>
- Netflix. (2021). *Personalization & Search. Helping members discover content they'll love*. Netflix. <https://research.netflix.com/business-area/personalization-and-search>
- Netflix Inc. (2021). Company Profile NETFLIX INC SWOT Analysis. *MarketLine*
- Okumuş, M. S. (2023).The Audience Struggle Between Television, Cinema, And Ott Platforms: The Case Of Netflix

And Disney+ In Turkey. *Turkish Online Journal Of Design Art And Communication*, 13(1), 108-123.

Pallant, J.L., Karpen, I.O. & Sands, S. J. (2021). What drives consumers to customize products? The mediating role of brand experience. *Journal of Retailing and Consumer Services*. 64. pp.1-9.

Park, E. A. (2018). Business strategies of Korean TV players in the age of over-the-top (OTT) video service. *International Journal of Communication*, 12, 22.

Park, S., & Kwon, Y. (2019). Research on the Relationship between the Growth of OTT Service Market and the Change in the Structure of the Pay-TV Market. 30th European Conference of the International Telecommunications Society (ITS): "Towards a Connected and Automated Society", Helsinki, Finland, 16th-19th June, 2019

Rahman, K.T. & Arif, Z.U. (2021). Impacts of Binge-Watching on Netflix during the COVID-19 Pandemic. *South Asian Journal of Marketing*, 2 (1). pp.97-112.

Sanna, L. J., Lundberg, K. B., Parks, C. D. & Chang, E. C. (2010). Retracted: Think and act globally, think and act locally: Cooperation depends on matching construal to action levels in social dilemmas. *Journal of Experimental Social Psychology*. 46(6). pp. 1126-1129.

Satr, D. A. (2020). Kişiselleştirilmiş Tasarım: Netflix Küçük Övizleme Görüntülerinin GrafikTasarımları İlkeleri Kapsamında Analizi. *Yıldız Journal Of Art And Design*, 7(2). pp.177- 196

Sevindi, M. İ. & Katmer, G. (2020). Türkiye’de Netflix’in Serialler Açısından Genç Geleneksel Televizyon İzleyici Kullanım Pratiklerine Yansımaları. *Medeniyet Sanat - İMÜ Sanat Tasarım ve Mimarlık Fakültesi Dergisi*, 6(1). pp. 57-72.

Seetharaman, P. (2020). Business models shifts: impact of Covid-19. *International Journal of Information Management*. 54. pp.1-4

Shobha, G. & Rangaswamy, S. (2018). Machine Learning. *Mathematical and Machine Learning Foundations*. 38. pp.197-228.

Şanlıtürk, E. (2018). Makine Öğrenme Algoritmalarıyla Hatalı Ürün Tahmini. (Published Master's Thesis). İstanbul Teknik Üniversitesi Fen Bilimleri Enstitüsü İşletme Mühendisliği Anabilim Dalı, İstanbul.

Tjepkema, L. (2017, October 10). What is Artificial intelligence marketing and why is it powerful?. Emarsys. Retrieved from November 12, 2021 [https://emarsys.com/learn/blog/artificial-intelligence-marketing-solutions/#:~:text=Artificial%20intelligence%20marketing%20\(%20AI%20Marketing,and%20improve%20the%20customer%20journey](https://emarsys.com/learn/blog/artificial-intelligence-marketing-solutions/#:~:text=Artificial%20intelligence%20marketing%20(%20AI%20Marketing,and%20improve%20the%20customer%20journey).

Turan, S. & Kudat, B. (2021). İçerikte Şuna İnanırız: Ne Kadar Lokal, O Kadar Global. *Harvard Business Review Türkiye*. pp.1-7

Türdü, N. (2020). SVOD Pazarı Trendleri ve Tahminler. Erişim Tarihi: 22.03.2023. <https://webrazzi.com/2020/03/06/svod-pazari-trendleri-ve-tahminler-rapor/>

Vesanen, J. (2007). What is personalization? A conceptual framework. *European Journal of Marketing*. 41(5-6). pp.409-418

Yazar, K. (2016, December 1). *Makine Öğrenimi Kavramı Pazarlamaya Nasıl Etki Ediyor?*. Pazarlamasyon. <https://pazarlamasyon.com/makine-ogrenimi-kavrami-pazarlamaya-nasil-etki-ediyor/>

Zengin, F. (2021). Yapay Zekâ ve Kişiselleştirilmiş Seyir Kültürü: Netflix Örneği Üzerinden Sanat Eserinin Hiper Kişiselleştirilmesi. *TRT Akademi*, 6 (13). pp.700-727 . DOI: 10.37679/trta.959576

- **Etik kurul onayı:** Etik kurul onayına ihtiyaç bulunmamaktadır.
- **Çıkar çatışması:** Çıkar çatışması bulunmamaktadır.
- **Finansal destek:** Yazar bu çalışma için finansal destek almadığını beyan etmiştir.

-
- **Ethics committee approval:** There is no need for ethics committee approval.
 - **Conflict of interest:** There is no conflict of interest.
 - **Grant support:** The author declared that this study has received no financial support.

Bu çalışma araştırma ve yayın etiğine uygun olarak gerçekleştirilmiştir.
This study was carried out in accordance with research and publication ethics.