

INTERNATIONAL STUDIES AND EVALUATIONS IN THE FIELD OF

COMMUNICATION SCIENCES

December 2024

EDITOR

ASSOC. PROF. DR. MURAT SAĞLAM





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CHAPTER 1

QR CODES: A WAY OF INTERACTIVE COMMUNICATION IN THE DIGITAL MEDIA AGE

Yarkın ÇELİK¹
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Introduction

The rapid pace of digitalization has significantly transformed the way we access and share information. Traditional communication methods are gradually giving way to more interactive and dynamic tools, and QR Code (*quick response code*) has emerged as a prominent player in this transformation.

QR codes are two-dimensional barcodes that can store a wide range of information, including text, web addresses, and phone numbers. Their ease of use, thanks to smartphone applications, has made them a popular tool across various sectors. QR codes are not only efficient but also offer interactive and multimedia features, aligning them with the characteristics of new media. New media, characterized by interactivity, hypertextuality, digitalization, and multimedia, has redefined communication in the digital age. QR codes, as a new media tool, embody these characteristics, allowing users to engage with content in a more dynamic and personalized manner.

QR codes have evolved into versatile communication solutions. Today, they are ubiquitous, found in restaurants, museums, and countless other settings. Businesses and individuals leverage QR codes to create more engaging and interactive experiences, enhancing communication and information dissemination. QR codes have become an integral part of the digital landscape, offering a seamless bridge between the physical and digital worlds. Their ability to provide quick access to information and their alignment with new media principles make them a valuable tool for both consumers and businesses.

This study examines the QR code in the context of new media and communication while evaluating its current position from the perspective of global data.

The Role and Development Process of QR Codes in the New Media Context

Today, developments in information and communication technologies have created a continuous flow of information. The primary reasons for this are the new media phenomenon that began with Web 2.0 and the process of digitization. One of the most significant stages contributing to the development of the Web, Web 2.0, influences corporate communication and online transactions, making the internet more interactive. As a result, businesses and organizations can communicate with their target audiences more easily. The information produced through these technologies is becoming socialized, and as a result, the globalized individual is technically evolving into a Techno-Social individual through digitization (Yengin & Bayındır, 2019, p. 87).

New media consists of environments that transform existing media into interactive, encoded, and digital forms, enabling the sharing of these digital data through computers (Manovich, 2001, p. 19). At this point, new media has

been shaped by the integration of existing media into 1s and 0s, (binary code) along with the ease of access to large audiences through interactive, dynamic communication tools that utilize internet infrastructure. With new media applications and tools, bidirectional communication has become possible without the need for a central hub. This indicates that new media does not have a center, and that bidirectional communication is feasible. New media has some fundamental characteristics of its own. The term new media refers to a wide range of changes in media production, distribution, and use (Lister et al., 2009, p. 13). Lievrouw and Livingstone (2006, p. 23) state that new media refers to information and communication technologies and the social contexts they are associated with, including structures or devices that expand our communication skills, communication activities or practices developed using these devices, and social organizations formed around these devices and practices.

The core element of new media is interaction, signifying a mutual influence between the sender and receiver. This characteristic has endowed new media tools with an interactive structure. The constant feedback enabled by the twoway flow of information transforms both the receiver into a source and vice versa. Consequently, interaction is the most salient feature of new media. Beyond its capacity to reach mass audiences, new media also allows for the customization of content. This means that different messages can be delivered to different individuals or groups. As a result, data, information, or news can be transmitted from a specific source to a particular audience. Asynchronicity refers to the ability to access content at any desired time. New communication technologies and media have made it possible for users to send and receive messages whenever they choose. Another crucial and complementary element of new media is convergence. This concept was first introduced into the literature by Ithiel de Sola Pool in 1983. According to Pool, convergence blurs the line between media and mass communication. It encompasses changes in both the production and consumption of media (Pool, 1983, p. 23). Convergence refers to the integration and use of multiple technologies within a single device (McPhillips & Merlo, 2008, p. 237). For instance, our smartphones are not merely telecommunication devices but integrated tools that serve various functions such as accessing the internet, playing games, taking photos, listening to music, sending emails, and listening to the radio (Jenkins, 2018, p. 24). Multimedia are platforms that bring together communication elements in different formats such as text, photos, videos, animations, sound, and graphics. Multimedia refers to the use of multiple formats together for the presentation of a single content. In short, it encompasses content in formats like graphics, sound, and video, and includes more than just plain text (Greenlaw & Hepp, 1999, p. 44).

According to Manovich (2001), digitization is the first and most fundamental feature of new media. Therefore, the use of "digital media" instead of "new media" is quite common in the literature. Digitality is a virtual representation of the real world, converted into code composed of 1s and 0s for presentation in a computer environment. The digital representation of elements such as film, music, and photographs is the most evident manifestation of digitality. Unlike analogue tools, digitality relies on devices that utilize energy beams, eliminating the need for reciprocity (Chayko, 2018, p. 4).

Lev Manovich views digitality as a copy of reality and identifies the following as the fundamental principles of the new communication environment: digital representation, modularity, automation, variability, and encoding. Digital representation refers to codes composed of 1s and 0s. Modularity, as previously mentioned, involves convergence, or the combination of multiple features within a single entity. Automation minimizes or eliminates the need for user intervention. Variability refers to personalized interfaces or the presentation of multiple variations of the same situation or feature. Finally, encoding describes the conversion of an object into different computer language formats. Interactivity, a fundamental characteristic of new media, represents the constant readiness for immediate feedback in communication. It signifies a two-way and dynamic structure that analog media cannot provide. Interactivity enables users to become active participants in the digital realm. This has fostered the development of collective intelligence and wisdom. Collective intelligence refers to the ability of members of virtual communities to strengthen their combined expertise (Jenkins, 2018, p. 49). Interactivity allows users to manipulate content, thus initiating an endless flow of information.

New media is a versatile and interactive media alternative to traditional media, enabled by computer technology (Misçi, 2006, p. 128). These fundamental characteristics that constitute new media differentiate it from traditional media tools. The fundamental features that make up new media are different from traditional media. The key characteristics of new media, or digital media, include being bidirectional, interactive, practical, fast, hypertextual, and incorporating multiple formats together. Additionally, the lack of centralization is one of its important features. With the P2P (Peer to Peer) system, communication can occur directly from user to user. This allows for a more democratic structure since every user can freely express their opinion. According to Bulunmaz, new media refers to virtual media environments that emerge from computer and communication technologies, where users engage with others at any desired time and place (Bulunmaz, 2014, p. 23). Within the framework of all these developments in communication tools, media has become a focal point. New media tools, which differ from traditional media tools, have changed both conceptually and formally. As a result, wearables, in addition to computers, tablets, or phones, are also considered part of the new media concept.

The term new media does not signify the currency of the message but rather the novelty of the medium. It is a convergence of hypertextual links, multimedia content (audio, visual, text, video), and artificial memory that provides sharing platforms through technological convergence (van Dijk, 2012). New media represents a broad media environment encompassing various tools and applications such as social media platforms, podcasts, QR codes, forums, blogs, wikis, mobile applications, websites, etc.

The QR code technology, which is the subject of this study, is a direct reflection of the new media logic. QR code, a type of matrix barcode, was developed by Japanese engineer Masahiro Hara in 1994 and is patented by Denso Wave Corporation (QRCode.com, 2024). The potential of QR codes was quickly recognized, leading to their widespread use in various sectors. Especially with the proliferation of smartphones, the use of QR codes has rapidly increased and begun to appear in many areas of our daily lives. Although a QR code is a two-dimensional matrix barcode capable of carrying information both horizontally and vertically, it has been adopted as a symbol for easy interpretation by scanners (Aktaş, 2016). A QR code is a twodimensional matrix barcode designed to enable the rapid decoding of encoded information. (Jupiter, 2011, p. 25).

QR codes represent a significant advancement in information storage and retrieval compared to traditional one-dimensional barcodes. QR codes offer a two- dimensional avenue, capable of housing up to 100 times more data, including multimedia such as videos and images (Francesca, 2019). Statistically, QR codes can represent the same amount of data as a traditional barcode in approximately one-tenth of the space. As a two-dimensional matrix, QR codes can contain various information such as URLs, SMS, contact information, and plain text, making them widely used in all aspects of life (Pandya & Galiyawala, 2008, p. 258).

QR code technology has found widespread application in daily life. It offers the ability to convey a vast amount of information, including websites, various texts, event calendars, phone numbers, location data, and more (Rewatkar & Raut, 2014). When combined with a mid-range mobile device, QR code technology opens up new horizons for applications in various fields, from education to marketing (So, 2011). The application of QR code technology has expanded significantly with the increasing prevalence of mobile devices equipped with cameras and running Android or iOS operating systems in daily life (Cox & Shiffler Dean, 2014).

QR codes offer numerous advantages over other types of barcodes. One of the most significant benefits is their high information capacity, allowing them to store much more data compared to standard barcodes. Additionally, QR codes can be read quickly, often in just seconds, thanks to the capabilities of smartphone cameras. They also exhibit impressive error tolerance, maintaining their readability even when damaged, which enhances their reliability. Versatility is another key advantage, as QR codes can be utilized for various purposes, including redirecting users to websites, playing videos, and sending messages. Finally, the production and use of QR codes are quite low-cost, making them an accessible option for both individuals and businesses.

QR codes are utilized across a wide range of fields today, demonstrating their versatility and effectiveness in various applications. In the realm of marketing, QR codes play a crucial role in product promotion, campaign creation, and enhancing consumer engagement. In educational settings, they facilitate student access to course materials and contribute to the development of interactive educational resources, thereby enriching the learning experience. The healthcare sector also benefits from QR codes, which are employed to securely share sensitive information, including patient and medication details, thus ensuring privacy and security. Furthermore, in the context of cultural heritage, QR codes are increasingly used in museums and historical sites to provide visitors with supplementary information, enhancing their understanding and appreciation of the exhibits. Lastly, in the domain of games and entertainment, QR codes are incorporated into mobile games to create interactive experiences, thereby engaging users in innovative ways. Overall, the multifaceted applications of QR codes highlight their significance in contemporary society.

The future of QR codes seems quite bright. With the advancement of technology, the areas of use and features of QR codes are continuously expanding. Especially when combined with augmented reality technologies, QR codes can offer more interactive and enriched experiences. Additionally, alongside the Internet of Things (IoT), QR codes will strengthen the connection between the physical world and the digital world.

Method

This study is based on descriptive content analysis. Descriptive research is a method explaining the characteristics of the phenomenon, issue, and/or subject studied and its methodology focuses more on the *what* of the research subject than the *why*. According to Adams et al. (2007), descriptive research is one of the most commonly used types of research in social sciences. A descriptive research aims to describe phenomena in the ways it is, for example, describing social systems or relationships between events. Thus, general trends in the relevant subject or field are determined.

In the research, data was obtained from We Are Social's¹ (2024) Global

 $^{1\,}$ We Are Social is a socially-led creative global agency based in the USA that shares digital data worldwide.

Reports between 2020 - 2024. These reports are annual publications that contain comprehensive information about digitization and are based on various data sources, including surveys, statistics, and analyses. We Are Social's reports presenting data on QR code usage rates, user demographics, and preferred platforms in different countries were examined. Besides, the Google Trends Tool was utilized to analyze search volumes, geographic distribution, and changes over time-related to QR codes.

Findings

The findings of the research are presented below in the context of the use of QR codes in general, representation of QR code usage frequency by country, evaluation of QR code usage by age and gender, online brand interactions, the diversity of interactions with brands, and interest in QR code over time.

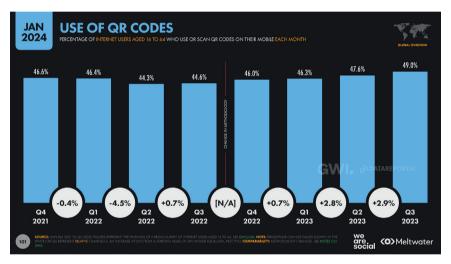


Table 1. Use of QR Codes

Table 1 shows the monthly frequency of QR code usage among internet users aged 16-64 from the fourth quarter of 2021 to the third quarter of 2023 on their mobile devices. Table 1 aims to understand the changes in QR code usage over time and the overall trend. The observed general trend in the graph indicates a steady increase in QR code usage throughout the examined period. Although there have been small declines since the last quarter of 2021, there is an overall upward trend. This increase has become more pronounced, particularly from the second half of 2022. In the third quarter of 2023, the highest usage rate has been achieved.

Rising Trend: The use of QR codes has generally increased during the period examined. This indicates that the integration of QR codes into daily life and marketing strategies is on the rise.

Instabilities: Some small declines are observed in certain quarters in the graph. This situation may be due to various factors. For example, seasonal changes, economic conditions, or global events like the pandemic can affect the use of QR codes.

High Usage Rate: The achievement of the highest usage rate in the third quarter of 2023 shows that QR codes are now known and used by many people.

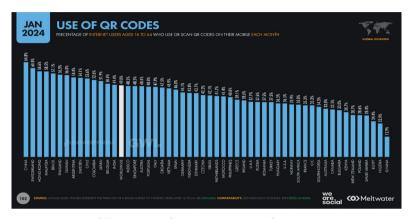


Table 2. QR Code Usage Frequency by Country

Table 2 shows the frequency of QR code usage among internet users aged 16-64 by country in January 2024 on mobile devices. This data provides important insights into the global spread of QR code technology and usage habits. The most notable feature observed in the graph is the significant differences in QR code usage among countries. While the usage rate is highest in countries such as China, Switzerland, and Hong Kong, the usage rate is quite low in some countries such as Nigeria. This indicates that various cultural, economic, and technological factors influence QR code usage.

Dominance of Asia: The graph shows that Asian countries are leading in QR code usage. Particularly in countries like China, Hong Kong, and Taiwan, QR codes are used across a wide range of areas from payment systems to social media.

Growing Interest in the West: QR code usage is also increasing in Western countries. However, the usage rates are lower compared to Asian countries.

Low Usage in Developing Countries: Overall, QR code usage is lower in developing countries. This can be attributed to factors such as limited internet access and the lack of widespread mobile payment systems in these countries.

Cultural Differences: Cultural differences between countries also influence QR code usage. For example, the prevalence of mobile payments in Asian culture is an important factor that increases QR code usage.

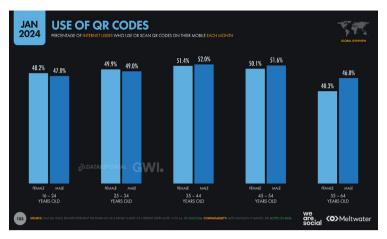


Table 3. QR Code Usage by Age and Gender

Table 3 shows the QR code usage rates by gender among internet users of different age groups in January 2024. This data serves as an important resource for understanding the prevalence of QR code technology and usage habits across different demographic groups. The overall trend observed in the graph indicates that QR code usage is quite common across all age groups, with no significant difference between genders. However, some nuances are also noteworthy.

High Usage Among Young Adults: QR code usage is slightly higher among young adults aged 16-24 compared to other age groups. This can be attributed to the younger generation's openness to new technologies and the frequent use of QR codes on platforms like social media.

Slight Decrease with Age: Overall, there is a slight decrease in QR code usage rates as age increases. However, this decline is not uniform across all age groups. Notably, the usage rate is somewhat lower in the 55-64 age group compared to other age groups.

Absence of Gender Differences: The graph shows no significant difference between genders. Both men and women use QR codes at similar rates.

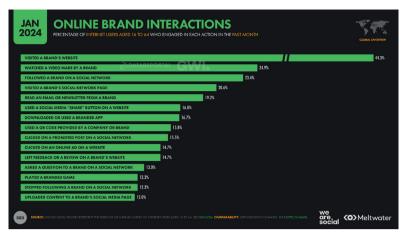


Table 4. Online Brand Interactions

According to Table 4 of a global internet usage survey conducted in January 2024, a significant portion of internet users aged 16-64 actively use QR codes to engage with brands. QR codes have been shown to play a crucial role in actions such as visiting brand websites, following social media accounts, and downloading branded apps. This finding indicates that QR codes are becoming increasingly important in digital marketing strategies and are transforming how consumers interact with brands.

				GLOBAL OVERVIE
16 TO 24 YEARS OLD	25 TO 34 YEARS OLD	35 TO 44 YEARS OLD	45 TO 54 YEARS OLD	55 TO 64 YEARS OLD
VISITED A BRAND'S WEBSITE 44.8%	VISITED A BRAND'S WEBSITE 43.5%	VISITED A BRAND'S WEBSITE 44.3%	VISITED A BRAND'S WEBSITE 44.0%	VISITED A BRAND'S WEBSITE 45.35
WAICHED A VIDEO ADE BY A BRAND 25.8%	WATCHED A VIDEO 25.7% MADE BY A BRAND	WAICHED A VIDEO 25.8%	WATCHED A VIDEO 23.4% MADE BY A BRAND	READ AN EMAIL OR NEWS- LETTER FROM A BRAND 24.19
FOLIOWED A BRAND ON A SOCIAL NETWORK 24.0%	FOLLOWED A BRAND ON 25.4% A SOCIAL NETWORK	FOLIOWED A BRAND ON 24.5% A SOCIAL NETWORK	FOLLOWED A BRAND ON 21.8%	WATCHED A VIDEO 21.75 MADE BY A BRAND 21.75
DOWNLOADED OR USED A BRANDED APP 20.6%	VISITED A BRAND'S SOCIAL 22.0% NETWORK PAGE	VISITED A BRAND'S SOCIAL 22.6% NETWORK PAGE	READ AN EMAIL OR NEWS- LETTER FROM A BRAND 20.7%	FOLLOWED A BRAND ON 17,95 A SOCIAL NETWORK
VISITED A BRAND'S SOCIAL NETWORK PAGE 20.2%	USED A SOCIAL "SHARE" BUTTON ON A WEBSITE 18.1%	READ AN EMAIL OR NEWS- LETTER FROM A BRAND 19.2%	VISITED A BRAND'S SOCIAL 19.3% NETWORK PAGE	VISITED A BRAND'S SOCIAL 16.21 NETWORK PAGE
READ AN EMAIL OR NEWS- LETTER FROM A BRAND 17.0%	READ AN EMAIL OR NEWS- LETTER FROM A BRAND 17.9%	USED A SOCIAL "SHARE" 17.4% BUTTON ON A WEBSITE	USED A SOCIAL "SHARE" 16.2% BUTTON ON A WEBSITE	CLICKED ON AN AD 0N A WEBSITE 14.69
USED A SOCIAL "SHARE" BUTTON ON A WEBSITE 16.7%	DOWNIOADED OR 17.8% USED A BRANDED APP	USED A OR CODE PROVIDED BY A COMPANY OR BRAND 16.9%	USED A GR CODE PROVIDED BY A COMPANY OR BRAND	USED A GR CODE PROVIDED BY A COMPANY OR BRAND 14.05
PLAYED A BRANDED GAME 16.2%	CUCKED ON A PROMOTED 16.9% POST ON SOCIAL MEDIA	CLICKED ON A PROMOTED 16.8% POST ON SOCIAL MEDIA	CLICKED ON A PROMOTED 14.2% POST ON SOCIAL MEDIA	USED A SOCIAL "SHARE" 13.45 BUTTON ON A WEBSITE 13.45
CLICKED ON A PROMOTED POST ON SOCIAL MEDIA 15.7%	USED A QR CODE PROVIDED BY A COMPANY OR BRAND 16.4%	DOWNLOADED OR USED A BRANDED APP	CUCKED ON AN AD ON A WEBSITE GWI. 14.1%	LEFT FEEDBACK OR A REVIEW 13.31 ON A BRAND'S WEBSITE
USED A OR CODE PROVIDED BY A COMPANY OR BRAND 14.9%	LEFT FEEDBACK OR A REVIEW 15.8% ON A BRAND'S WEBSITE	LEFT FEEDBACK OR A REVIEW 15.4% ON A BRAND'S WEBSITE	LEFT FEEDBACK OR A REVIEW 13.9% ON A BRAND'S WEBSITE	CLICKED ON A PROMOTED 11.55 POST ON SOCIAL MEDIA

Table 5. *The Diversity of Interactions with Brands*

Table 5 presents the rates of online interaction with brands among different age groups of internet users. The data, especially regarding QR code usage, provides valuable insights into digital marketing and consumer behavior. The most striking point in the table is that QR code usage holds a significant

place in all age groups. In particular, the item "used a QR code provided by a company or brand" demonstrates how important QR codes have become as a tool for brands to reach consumers and engage with them. When comparing different age groups, it is observed that the younger generation (16-24 years old) uses QR codes more frequently. This situation can be attributed to the younger generation's greater affinity for technology and their frequent use of mobile devices. However, the fact that QR code usage is quite widespread in other age groups as well indicates that this technology is being adopted by different demographic groups.

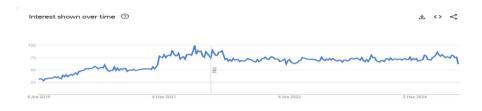


Table 6. Interest in QR Code Over Time

Table 6. shows the global search trend for 'QR code' over the past 5 years. The overall upward trend can be explained by the widespread adoption of smartphones and the increased demand for contactless transactions during the pandemic. In particular, the pandemic in 2020 significantly increased interest in QR codes as they were used for restaurant menus, product information, and payments. Recently, however, the graph has shown a flatter trend, suggesting that QR codes have become a part of our daily lives and the market may be reaching saturation.

Conclusion

This study examined the QR code in the context of new media and communication, from the perspective of global data. As a result, with the increasing accessibility of QR codes through mobile devices and the expansion of their areas of use, it is anticipated that this technology will become even more widespread in the future. However, it cannot be said that this growth will be continuous and stable. Factors such as market conditions, user habits, and technological developments are expected to influence this growth.

The findings show that there are significant geographical differences in QR code usage during the examined period. Countries in the Asia-Pacific region, particularly China, Japan, and South Korea, rank among those with the highest rates of QR code usage worldwide. This situation can be attributed to the widespread use of mobile payment systems and other digital services in the Asia-Pacific region. While QR code usage is also common in Europe

and the Americas, it has not reached the same high rates as in the Asia-Pacific region. In Africa, the overall usage of QR codes appears to be low. This can be attributed to factors such as infrastructure deficiencies, limitations in internet access, and insufficient technological knowledge on the continent. Therefore, QR code technology is rapidly becoming widespread globally and is starting to be used in many areas of daily life. However, the speed and level of this proliferation are influenced by factors such as geographical location, level of economic development, and cultural differences.

The findings also indicate that QR code usage varies by gender and age group. Generally, higher rates of QR code usage are observed in younger age groups (16-24 and 25-34 years). This trend can be associated with the younger generation's openness to technological innovations and their more frequent use of mobile devices. Consequently, QR code technology is more widely adopted among the younger generation, and the usage rates decline with age. Gender differences, on the other hand, vary by age group and appear to require more detailed examination.

With the rapid advancement of digitalization today, how brands interact with consumers are also undergoing significant changes. QR codes have become one of the determinant tools for this interaction. According to the provided data, internet users are navigating to brand websites, following social media accounts, and even downloading branded apps through QR codes. This indicates that QR codes are effectively used in digital marketing campaigns and play an important role in shaping consumer behavior. It can be said that QR codes play an important role in brands' strategies for interacting with consumers. The popularity of this technology, especially among the younger generation, enables brands to reach their target audiences more effectively.

Interest in QR codes constantly changes in line with technological developments and societal needs. The increase during the pandemic highlighted the potential for QR codes to become more integrated into our lives. However, there have been periods when interest has declined over time. This situation is thought to result from various factors, such as the emergence of new technologies or issues experienced in the use of QR codes.

In conclusion, the use of QR codes has increased over time and has become a part of daily life. This situation indicates that businesses and brands should incorporate QR codes more frequently in their marketing strategies. Additionally, it can be anticipated that the areas of application for QR codes will also expand. QR codes have become a part of life in many countries today. However, the usage rates vary significantly between countries. This situation indicates that different strategies need to be adopted in various countries for the development and widespread adoption of QR code technology.

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CHAPTER 2

"SOCIAL MEDIA IS NOT A SAFE SPHERE": COVID-19 AND ONLINE RACISM

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Introduction

When the novel coronavirus (SARS-CoV-2) emerged in China and spread rapidly, causing deaths worldwide, scapegoat were sought to blame for the crisis. In general, societies facing crises have tended to construct an 'other' to blame for the unexpected (Cecchi, 2019). Historical data shows that many pandemics have been associated with disadvantaged groups such as marginalized migrants and ethnic minorities (Sennett, 2008). Since the city of Wuhan in China was the starting point of the pandemic, all Asians have been uniformized and made the target of discrimination. Although the pandemic has been associated with Asian individuals, "migrants have been historically seen as a potential threat and stigmatized as 'disease carriers' (Kraut, 2010, p. 2). Therefore, although COVID-19 related racist discourse has targeted people of Asian origin, it has also targeted members of groups of different ethnic backgrounds outside the Asian background with indicators of ethnic or religious difference, expanding the scope of negative attitudes and discourses towards migrants in general in the world (Croucher et al., 2020).

Research has reported an increase in racism and xenophobia at the beginning of the pandemic (Clissold et al., 2020; McCoy, 2020). Ethnic minorities in the United States and European countries have experienced discrimination and xenophobia in relation to COVID-19 (Croucher et al., 2020). However, racism and xenophobic discourses have greatly increased not only offline but also online (Liu & Huang, 2022). Social media in particular has become a central space for the spread of racist content and hate speech (Matamoros-Fernández & Farkas, 2021). This is because social media platforms are an environment that allows people to state situations that they cannot express in the public sphere (Hutchens et al., 2015).

Online, ethnic minorities are exposed to hate speech targeting their group identities, which can be expressed as overt racism (Ortiz, 2021). However, little is known about how members of targeted groups experience and make sense of online hate and racism (Bliuc et al., 2018). In this context, this study focuses on Turkish women migrants' experiences of online racism during the pandemic in the Netherlands, a country with a liberal and tolerant image. In the Dutch context, the Turkish community represents a racialized group that is positioned as "the other" both ethnically and religiously (Ghorashi, 2010; Verdujn & Essers, 2013) and is a common target of hate speech. Therefore, at the intersection of ethnicity, gender and religion, this article examines Turkish migrant women's experiences of online racism in the Netherlands (1), their interactions with content targeting online racism and group identities (2), and how they evaluate the online space in this context (3). Furthermore, this study interrogates the practices of these women's use of digital media to cope with racism, specifically exploring the activist efforts of actors such as NGOs, activists and artists in this regard. The findings show that cultural

stereotypes against these women on the basis of race, religion and gender persist in populist discourse, daily life and online, and that they face various disadvantages and micro aggressions in the context of their intersecting social identities. Due to mistrust of social media platforms and privacy concerns, women try to protect themselves against racist hate speech online through various tactics.

Marginalizing Discourse, Gender and Discrimination

One of the most striking elements of the current discourse on ethnic minorities in the Netherlands is that it concerns Muslim migrants (Turkish and Moroccan) and gender issues (van den Berg & Schinkel, 2009, p. 395). The focus of the discourse at the intersection of religion and gender is usually on women, and this also functions as a way of marginalizing Muslim women (van den Berg & Schinkel, 2009).

The headscarf is an important distinguishing mark of Muslim women and is often the most important element of debates in public discourse. Issues such as the headscarf and domestic violence discussed in the media and public spaces in the Netherlands are related to a culturalist discourse that sees Islam as opposed to secular Western culture (Korteweg & Yurdakul, 2009). The focus on these issues rather than women's emancipation is indicative of the belief that these women are oppressed in the name of Islam or by practices within "Islamic cultures" (van den Berg & Schinkel, 2009). Islam is imagined "as a religion predisposed to maltreat the female sex" (Saharso, 2003, p. 8). On the other hand, stereotypes about women of Turkish origin, such as submissive and oppressed (Wiemers et al., 2024, p.10), have widespread validity in Dutch society. Since some of the ethnic majority perceive the nonliberal values of Muslim groups as a threat to their liberal culture, intergroup prejudice and discrimination are triggered in this way (McLaren & Johnson, 2007; Schlueter & Scheepers, 2010).

Women of Turkish origin whose parents migrated to the Netherlands from Turkey, often as workers, face intersecting levels of challenges. These challenges include discrimination in the housing market, education system and labor market restrictions on headscarves, and the general rise of Islamophobia (van Es & van den Brandt, 2020). A prominent intersection point of social group memberships is ethnicity, gender and religion. In this context, women wearing headscarves in particular may face more intersectional disadvantages in terms of their relations with religion as well as ethnicity and gender, as they carry an explicit religious signifier. For example, it has been reported that women wearing the headscarf in the Netherlands are less likely to be employed in a paid job than Muslims who do not wear the headscarf (Blommaert & Spierings, 2019). The research reveals that Muslim minority women are less likely to be in paid jobs, face longer job search times and work in lower status jobs than majority women (Blommaert & Spierings, 2019). Another study found strong evidence of employer discrimination against Muslim women wearing headscarves. Furthermore, the research shows that there is proof that Muslim women wearing headscarves in the Netherlands experience discrimination by customers (Fernández-Reino et al., 2022; Thijssen et al., 2021).

Online Racism and COVID-19

Online environments, such as social media applications, contain a level of anonymity, transient encounters and disembodiment (Suler, 2004) and less accountability (Hughey & Daniels, 2013). These features of social media can provide a powerful tool for the enactment and dissemination of racist attitudes. Since algorithms tend to favor content that evokes strong reactions and sentiments, they support racist and discriminatory rhetoric (Papacharissi, 2015). On the other hand, mainstream media is one of the factors that feed the spread of stereotypes, Islamophobic and sexist discourses on social media. Negative news about Muslim migrants in the Dutch press and news media feeds racist hate speech and stigmatization of people from this group on social media. The view of migrants on Dutch television is in the context of different skin color, physical appearance and clothing, including "stigmas of otherness". Religious identity markers are racialized through constant associations with Muslim clothing, mosques, failed integration, fundamentalism and terrorism (Meuzelaar, 2021). For instance, in October 2022, a Dutch media research of Muslims wearing headscarves reported a dominant portrayal of Muslim women as needy, screaming, crying, hopeless and oppressed. This portrayal is predominantly stereotypical, one-sided and negative. According to the researchers, these negative stereotypes can play a role in various forms of discrimination, racism and sexism in the social role of Muslim women (Yuksel & Butter, 2022).

In addition to all these factors, structural racism triggered by fear of the virus has manifested itself as a consequence of COVID-19 related xenophobia (Gover et al., 2020). The Dutch news network NOS initially reported that most the COVID-19 related Facebook and Instagram posts contained "racist and discriminatory" (NOS, 2020). According to CBS research on online discrimination, 40% of those who experienced online discrimination in 2022 experienced discrimination based on race or skin color. Most online discrimination (almost 80%) took place on social media platforms such as Facebook, Instagram, Snapchat and TikTok. More than 30% of people who experienced online discrimination felt less safe and 20% experienced depressive symptoms (CBS, 2023). The COVID pandemic not only exacerbated racism, but also contributed to the rise of Islamophobia during the lockdown, especially online (Chandra et al., 2021; Pucelj, 2022). The European Islamophobia Report (Bayraklı & Hafez, 2022) reported an

increase in online Islamophobia as everyday life moves into the private sphere

There is a dearth of research on experiences of online racism in relation to COVID-19, how racism is perceived, and interactions with racist discourses. Therefore, the current study aims to contribute to the literature by revealing online racism experiences and interactions through qualitative interviews with Turkish women living in the Netherlands.

Methodology

In this study, a cultural constructivist approach was adopted to examine the experiences of Turkish migrant women in the Netherlands of being exposed to online racism during the pandemic. The constructivist approach focuses on the views and approaches that people form to make sense of a phenomenon (Denzin & Lincoln, 2005). In the current study, semi-structured interviews were used to collect data.

The interviews were based on a topic guide focusing on their experiences of online racism, their interactions with content targeting online racism and group identities, and how they evaluate the online space in this context. This study focuses on the online experiences of Turkish migrant women in the Netherlands during the pandemic when the effects of the pandemic were strongly felt and during the period when its effects continued to be seen (March 2020-March 2022).1

There are very few studies investigating the experiences of Turkish women in the Netherlands in relation to the COVID-19 pandemic. For women, there is "intersectionality of religion, race and gender which makes vulnerable to complex patterns of bias" (Perry, 2014, p. 74). In addition, the discourse on ethnic minorities in the Netherlands is often related to gender issues and gender is frequently constructed through Muslim women. This present study includes the views of 15 participants, aged between 20 and 61, as well as a civil society representative, an artist and an activist, in a region known as the Randstad area, which includes four major cities in the Netherlands (Amsterdam, Rotterdam, The Hague, Utrecht). These cities were chosen because they have the largest Turkish migrant population in the Netherlands (Kloosterman, 2004).

In light of the difficulties in reaching the participants, snowball sampling method was used. Interviews were conducted in Turkish, four of them online (Microsoft Teams and Zoom) and the others face-to-face at workplaces, cafes and participants' homes. The interviews were conducted between January

¹ In the context of the fieldwork of this study, the participant information, fieldwork date, sample and ethics report are the same as the fieldwork of the following referenced study: Aldemir, A., & Leurs, K. (2024). Racism and discrimination during the COVID-19 pandemic: Experiences of Turkish migrant women in the Netherlands. Women's Studies International Forum, 106. https://doi.org/10.1016/j. wsif.2024.102972

2023 and April 2023 and lasted between 20 minutes and 2 hours. Participants' names are pseudonyms given anonymously. All participants were informed about the research before the interview. The transcriptions were categorized thematically and analyzed through the data to arrive at "comprehensive explanations for a structural analysis" (Moustakas, 1994).

The term 'online racism' is taken in the article as a broad concept that denigrates ethnic minorities on the basis of their skin color, phenotypic characteristics or (ascribed) ethnic, national or religious background. This study has limitations, especially due to the sample size: therefore, the experiences, opinions, and approaches to online environments of these women cannot be generalized to other women of Turkish origin living in the Netherlands. Ethical approval for this study was received with reference number 22-167-03 dated 20.12.2022 from the Faculty Ethical Review Committee of Utrecht University.

Pseudonym	Age	Education	Occupation	Wearing a veil
Zehra	46	graduate	social pedagogue	yes
Zuhal	36	graduate	digital communication advisor	no
Miray	51	graduate	teacher	no
Meltem	22	undergraduate	student	no
Derya	35	graduate	information technology expert	no
Sena	40	graduate	teacher	no
Elif	20	undergraduate	student	yes
Feride	45	master's	city employee	yes
Filiz	34	master's	1awyer	no
Damla	31	graduate	unemployed	no
Aynur	43	graduate	company owner (home nursing)	no
Serap	58	master's	social policies expert	no
Sezen	49	graduate	general practitioner	yes
Gizem	22	undergraduate	student	no
Pınar	48	high school	registrar	yes
Esra	31	master's	photography artist	yes
Melisa	61	graduate	social worker	no
Gizem	25	graduate	civil engineer	yes

Table 1. Profile of the Participants

Findings

Encounters with Online Racism

Most of the participants mostly reported that they indirectly witnessed racist, xenophobic or Islamophobic content online. For example, Serap stated a discussion she encountered on social media as follows:

Since the places of worship were closed, churches decided to ring their bells for collective worship. Synagogues agreed among themselves. Then the mosques in the neighborhood where I work decided to call for prayer. There

was a great outcry in the online media. I don't want donkeys braying in my neighborhood, do they have the right to do so, or is there this or that, you know, it wasn't that they said let's go and burn it down, but there were things close to that,...That was quite scary.

As can be understood from Serap's experience, although racist and Islamophobic content encountered indirectly online does not directly target them, indirect experiences have the potential to create the effect of a personal experience of racism. According to Essed (1991), experiences of racism are not limited to personal experiences, but also include knowledge related to the experiences of the group with which one identifies. In this context, having observed racist discourse provides a broad understanding of what constitutes the experience of racism online. Another participant, Gizem, likewise reported seeing a lot of racist and offensive comments online against ethnic minorities such as Turks and Chinese living in the Netherlands during the pandemic: "I started to see more racists on the pages of news channels, maybe Al Jazeera. The Dutch TRT, so NOS, I saw it there too,... I started to see more racism, more aggressive comments. Not only against Turks, but also against Chinese."

The fact that the participants did not experience direct racism and discrimination online during the pandemic was related to their attitudes towards using social media platforms and their opinions about these platforms. The majority of the participants had common characteristics in terms of keeping their social media accounts private, trying to stay away from discussions on race and ethnic identity, and not finding social media platforms reliable. For example, Damla's comment on the subject was striking:

I'm not a person who uses media a lot myself. I don't like to share pictures and stuff like that, so I'm afraid to give my opinion on such things. There's actually something here. The Dutch are very like this. This is also instilled in us. They are people who prefer to stay in the background. You won't be liked much if you say what you think. Actually, this is a very free country, but you are not liked when you speak your mind. Then you can be excluded immediately. I'm just like the Dutch, following behind.

Born and raised in the Netherlands and familiar with Dutch society, second generation Damla shared the Dutch phrase "oe maar normaal, dan doe je al gek genoeg, which translates to be normal, since normal behavior is strange enough" during the interview. This was also evidence of Damla's adherence to social norms in order to be culturally accepted.

Some participants stated that COVID-19 is associated with migrants in the media. For example, Aynur expressed this situation as follows: "They already said it was a disease brought by migrants. They repeated this many times. After that, it has always remained like that in the media." (Aldemir & Leurs, 2024, p. 5). Aynur's use of the word "migrant" as an umbrella concept in her statement is evidence that outbreaks are associated with ethnic minorities (Sennett, 2008), who are perceived as a threat today as in history. By targeting migrants as scapegoats in the media, migrants have been made the target of discrimination in terms of their exposure to social exclusion. In addition, as seen in Aynur's statements, it is quite clear that COVID-19 is associated with people of migrant origin, so it is seen that COVID-19 is the trigger for the development of an angry and abusive discourse targeting migrants. The findings of Zemouri et al. (2024) in their study on discrimination in health services during the pandemic in the Netherlands, such as open discrimination, racism, prejudice and not being taken seriously due to ethnicity, also show that negative feelings towards ethnic minorities especially in hospitals were triggered during the pandemic.

Interactions with Online Racism

In order to learn about the participants' interactions with racist content on social media during the pandemic, it was questioned whether they actively participated in anti-racist posts and discussions about racist content. Some of the participants, who stated that they mostly use Instagram and X stated that a certain audience, especially on X, was involved in discussions about racism and that they thought it would not be useful to discuss with them. They stated that they stay away from these discussions because there are usually two sides to the debate, both sides are extremely sensitive and social media is a very suitable platform for misunderstandings. For example, Elif from the second generation explained her stance on this issue as follows:

In social media, almost wherever these discussions are opened, that audience is usually clear and you cannot tell anything to that audience anyway. That's why, let's say you sit face to face with a person and have a discussion, you can measure that person. You can see what that person does, how they react, you can understand them, and something will happen accordingly, but it's not like that on social media. They can also come to you with hearsay. He could be 10 or 12 years old, you don't know. That's why I never got into such a discussion on social media.

In the digital sphere, unlike in the offline environment, users can choose their attitude towards racist and xenophobic content and the extent to which they are exposed to such discourse. Participants prefer to ignore such discourse because engaging in online discussions about race or ethnic identity with other users online carries the risk of becoming a target of hate speech. Therefore, as Elif stated, since anonymity and lack of face-to-face relationship in social media involves insecurity, avoiding racist interactions appears as a subjective preference and at this point, it was observed that the participants were quite cautious. Another participant, Pınar from the first generation, answered the question about her experience of online racism as follows:

I am not someone who puts my opinions on social media too much. I try not to put them in any way (Why is that?) I mean, why don't I,... both because of my position. I can share my ideas with my friends, but social media is not a safe sphere,... I don't feel the need,... On social media, everyone makes judgments. Everyone can say everything to each other.

Another participant, Aynur stated that she observed racist content on social media, while at the same time consciously choosing not to engage in discussion:

I was reading, of course I came across it. I came across a lot of them, but I don't get into that discussion myself (Why is that?) I always think like this, ignorant is always ignorant. And the media (social media) is such a simple thing. You know, everyone says what they want in the media (social media), but can he come in front of me and say what he wrote there in the same way?

Participants do not see social media as a safe sphere and specifically try to protect themselves from engaging in discussions about racism. By interacting and engaging in online discussions, they avoided drawing attention to themselves and exposing themselves to direct racist attacks. Most participants reported being cautious about commenting on, liking or sharing content that publicly expresses their views. This cautious and careful approach to social media is in line with similar studies (Nadim & Fladmoe, 2021; Nadim, 2023). However, it was observed that the two university student participants were more active in online media than the first generation and interacted on issues related to group identity. Especially in this context, it was observed that President Erdogan was effective as a political figure. For example, Meltem made the following statement about this:

I mean I am a person who likes to argue. I mean, I don't want to be silent. You know, as soon as someone says something to me or to Turkish or to Muslims, I want to say something immediately,...For example, on Facebook, sometimes when something is said about Erdogan, most people comment. I like sometimes but I don't comment. So I don't want to deal with it because many people misunderstand,...Most of the Turks here are Erdoganists. We always, for example, share, say everything about him or speak well about him.

We see that President Erdogan is identified with the group identity as a political figure. It is seen that some young people who are excluded in Dutch society behave in line with their cultural heritage, especially from their families, in order to combat exclusion.

Reflections of the Experience on Social Media

Social media is a space that is open and conducive to the realization of racist experiences, and it also has the potential to be a medium for the victims of these experiences to share their experiences with their followers, open them

up for discussion, or seek psychological support. Second-generation women who were born in the Netherlands and have been living in the Netherlands for many years stated that they do not share their experiences on social media, only with their families and close friends. However, some participants who came to the Netherlands as migrants during the pandemic and who were not culturally familiar with Dutch society shared their offline experiences of racism on social media during the pandemic. For example, Sena stated that she came to the Netherlands at the beginning of the pandemic "to live more humanely", but decided to leave the Netherlands due to the discrimination she faced in business life and microaggressions in daily life. Sena shared a comment on an Astrology Page's post on Instagram about the reflection of the microaggressions she experienced both in her work and daily life in the Netherlands:

As a Taurus, I decided to move to another country from the Netherlands, where I came last year to start a happy and beautiful life, to live more humanely, but which gave me bitter experiences. I have been feeling stuck for a long time. Everything I have experienced here has made me aware, without realizing it, but it has also made me very unhappy. As a woman (in a European country like the Netherlands), it frustrated me to see how racism and sexist discrimination still prevail. But with the experiences I have gained, I am no longer afraid of making new beginnings. And since I know myself better, I will draw my path accordingly from now on.

In Sena's comment, expressions such as "living more humanely" and "seeing that racism and sexist discrimination still prevail in a European country like the Netherlands" are particularly striking. The evaluation of the Netherlands as a civilized, progressive and prosperous European country and Turkey as a sexist and backward country with low living standards (even though the participant said that she was aware that the Netherlands was not like this) can be associated with the current image of European countries in the world and the orientalist approach (Hung, 2003). Another participant Zuhal shared her experience of racism in the dog walking area with her followers. She started her social media post with the words "I finally experienced the sentence 'Don't look, the Dutch are very racist' that I have been hearing since I moved here without even saying that I am Turkish". After her dog had a short fight with a Dutch woman's dog in a dog walking area, she experienced an incident in which the Dutch woman asked "Where are you from?" and then said "Go back to your country!" (Aldemir & Leurs, 2024, p.6). She then expressed the fluctuations that this experience created in her as follows:

Then we came home. I was so bored, so upset. I suddenly had red rashes all over my body. First I was angry with myself... I didn't say, "Why are you asking me which country I am from?" Then my inner voice started saying, "This is what the Dutch are like, they are racists, they think they are superior.

Then I cried a little out of anger....

In Zuhal's experience, it is seen that the prejudices learned about the Dutch society become operationalized with the experience. It is clear from the expressions in Zuhal's post that she experiences many emotions such as sadness and anger at herself at the same time and tries to cope with the experience victimization. Zuhal stated that sharing her story with her followers made her feel relieved and that she received various advice. Her followers who had similar experiences also shared their experiences. These examples show that social media has a function that enables individuals who have experienced racism or discrimination to interact and provide psychological support to each other. Sena and Zuhal, both not born and raised in the Netherlands, unfamiliar with Dutch society, migrated to the Netherlands early in COVID-19 in the hope of a better life. These women were more self-confident than the second generation women who were born in the Netherlands, knew the culture well and were mostly marginalized, and they did not refrain from directly mentioning the concept of racism during the interview. Therefore, it was observed that they also had the confidence to talk about their experiences on social media in a more uninhibited way.

Digital Media in Coping with Racism

Women, who are subjected to multiple discriminations in the context of gender, ethnicity and religion, are challenging stereotypes, Islamophobia and hate speech, especially in recent years, with the awareness of the opportunities provided by online environments in challenging sexist and Islamophobic stereotypes (Hirji, 2021). Online environments offer many advantages and opportunities for women to make their voices heard, to challenge hegemonic expectations, to build solidarity and feminist networks. With the advent of the Internet, online platforms have become an important way for Muslim women to actively resist Islamophobia and other forms of racism (van es & van den Brandt, 2020). In this context, the participants' digital resilience tactics in dealing with both offline and online racism were questioned. As mentioned above, the participants were not directly exposed to online racism, but stated that they indirectly encountered racist content on social media. In order to avoid direct exposure to racist experiences online, they developed a strategy of avoiding posts and comments related to race and group identity. At the same time, it was observed that tactics such as limiting social media accounts to close circle of friends, keeping the account private, and limiting social media posts because they did not consider social media as a safe sphere, and emphasizing privacy were coping strategies.

It has been observed that some of the participants find the fight against racism and discrimination meaningless or are reluctant to engage in it anymore. There are many reasons for this reluctance. Most of the participants

stated that there is discrimination in education, daily life, institutional settings and the labor market in the Netherlands. However, those who witnessed that the efforts of those who struggle against racism are ineffective do not dare to put effort into the struggle and prefer to remain silent because they think that they will not be successful even if they use the possibilities of digital media. In addition, an important reason is that according to most of the participants, native Dutch people behave quite politically and are difficult to convince. For example, Meltem stated that although her grades were good, she had to go to a vocational high school when she could have gone to a better high school due to the teacher's report. When she was asked whether there was anything she could do against this situation, she gave the following answer: "It is hard to change once they have made up their minds." Furthermore, as an important finding of the study, the second generation born in the Netherlands mostly hesitated to use the concept of racism directly; however, when the interviewer used this term, the participants used this concept to express their attitudes. As the literature points out (Ghorashi, 2014), this is a phenomenon that points to the difficulty of talking about race and racism in the Netherlands. According to Ghorashi (2014), talking about race and racism in Dutch public opinion is seen as an uncomfortable topic. This also makes it difficult to take a stand against racism. The fact that most of the participants are second generation and are well acquainted with the white Dutch society and its cultural characteristics makes them cautious about racism and discrimination. Although these women were hesitant to engage in anti-racist activism in the digital sphere, some of them used the possibilities of digital media to tackle stereotypes and racism against Turkish Muslim women.

Esra, who is an artist, talked about the stereotypes against Turkish women and explained that she is making an effort to change this:

People generally don't take Turkish women or Muslim women very seriously. I realized that they have low expectations and their prejudices are in that direction. For example, they are surprised that you have a university education. They are surprised that you have a career. They are surprised that you speak good Dutch. They don't expect you in some places, in some positions. That surprise is actually a signal that expectations are low,... Instagram, for example, I saw that it was a very effective platform. And I actually started with the photographs of the Black Lives Matter protest as an exhibition or a series,...I saw that it was a tool to tell sociological problems through photography and for people to talk to each other. And I actually had a photography project in mind for a while and then I started with that. And I realized that people needed stories like that,...I shared the stories on my website, on the internet, on my Instagram.

Esra's words strikingly summarize the approach to Turkish and Muslim women in the Netherlands. Not being taken seriously or having low

expectations for these women to be educated is a testament to the established perceptions of these women in Dutch society as oppressed, submissive, in need of protection, backward (Wiemers et al., 2024, p.10; van Es, 2019).

Experiencing microaggressions in the context of stereotypes, Esra has incorporated photography into her activism to show that these women's stories as subjects are meaningful. Esra stated that she tries to combat negative representations of migrant women by telling migrant women's stories through her photography exhibition, web page and Instagram account, and shared that she collaborates with Dutch non-governmental organizations in this context. Esra, who also organizes a podcast series with the women she photographs, felt that she wanted to break down prejudices against Muslim women and that it was important to publicize that these women's identities and stories are part of the Netherlands.

Another participant, Melisa, an NGO representative, stated that she does a lot of work offline to deal with racism and stereotypes but is not active online. Melisa, who stated that she does not use social media, stated that social media has aspects that bother her as follows: "I mean, okay, you share something there, but what does it lead to? There is also the issue of provoking people more. I don't use social media because there are misunderstandings. I mean, whoever wants to use it can of course use it."

Filiz, who migrated to the Netherlands at the beginning of the pandemic, stated that because she was unfairly under-evaluated in her part-time job, she and a few of her black coworkers formed a WhatsApp group and included her employer in this group and voiced the injustice they experienced there (Aldemir & Leurs, 2024). She shared that although she did not get any results from this effort, she was still happy:

I added the phone number of the person in charge at the agency and told them about that day. I said this is what happened and we were very upset. Because we worked very hard for 8-9 hours with a lot of effort and we interpret this behavior as racism. Because none of us were Dutch and we know that our Dutch friend was treated differently from us. The person we dealt with from the agency was very disturbed by this. He immediately tried to change the subject,... The fact that I specifically used the word racism made him very uncomfortable and he directly said. "I mean, this is a very heavy accusation, do you realize what you are saying?" He tried to get on top and tried to close the subject as soon as possible and pretend it didn't exist anyway, you know, 1-2 wrote their own comments and left the group immediately so that this conversation would not continue,... But yeah, at the end of the day, nothing changed in my life. I mean, I just didn't keep it inside. I didn't get any results from it. I was even happy to do it.

Having migrated to the Netherlands at the beginning of the pandemic,

Filiz, who was not familiar with the Dutch society's approach to racism, did not hesitate to directly mention racism. Although Filiz's initiative did not yield any results, it at least shows that social media platforms can be functional for migrant women to come together and show collective solidarity against what they perceive as racism. At the same time, this experience goes beyond the stigmatization of Muslim Turkish women as passive victims and is an example of women's empowerment and resistance. Migrant women are stigmatized in public and political discourse as backward, passive and victims of their own culture (Eijberts & Roggeband, 2016, p. 147). The sense of satisfaction and self-confidence that comes from taking an active stance was evident in the testimonies of women who tried to overcome racism, even if they did not achieve results.

Conclusion

This chapter examined Turkish migrant women in the Netherlands' perceived experiences of racism and discrimination online due to the COVID-19 pandemic, their interactions with online racism, reflections of the experience on social media, and coping strategies within digital media against these experiences. The results showed that these women did not have a direct experience online, but indirectly experienced racism online related to COVID-19 during the pandemic. It is seen that issues such as the association of COVID-19 with migrants in the mainstream media, discussions about the call to prayer in mosques, are generally triggered negative attitudes towards individuals of Turkish origin during this period.

In the Netherlands, it has been reported that racist, aggressive and Islamophobic discourse against Turkish migrants increased online and xenophobia became more visible in online media during the pandemic period. The finding of an increase in Islamophobic discourse is in line with other studies that Islamophobia deepened online during the pandemic (Chandra et al., 2021; Pucelj, 2022) They explicitly rate the content they encounter online and on social media as racist and exclusionary. They perceived racism as a term for all experiences of marginalization and exclusion, such as their religious affiliation, their non-white appearance, their non-Europeanness (Modood, 1997).

Online racism can also be experienced indirectly through the observation of racist content and attacks on others. Participants did not perceive these indirect experiences as directly directed at them personally, but they did associate a signifier of their group identity (e.g. the term migrant) with it. However, it was observed that they thought that online racism was more manageable than offline racism and that it was possible to distance oneself from it. In this context, coping strategies such as giving importance to privacy in social media accounts, staying away from discussions about race and racism,

and ignoring racist content come to the fore. It was observed that social media is not a safe sphere, it allows for provocation and aggression because it allows anonymity, users who discuss racism are generally seen as ignorant, and therefore they try to be conscious users of social media. However, especially in their efforts to combat xenophobia and the accurate representation of ethnic minorities on social media, it has been observed that they have turned to the possibilities of digital media, albeit to a lesser extent, to combat racism. However, it has been observed that the use of the possibilities of digital media is quite inadequate and limited. In this context, it is recommended to examine the work of various non-governmental organizations, artists and activists of Turkish origin and to conduct further research on the reasons for the insufficient use of digital media.

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CHAPTER 3

FOOD, MYTHS AND CULTURAL ADVENTURE: SEMIOTIC ANALYSIS OF POPULAR TURKISH FOODS

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Introduction

Nutrition is not only about material needs or physiological and perceptual processes, but also about all the various activities, discourses and images associated with it. Food is not only a substance used for survival and nutrition, but it is also part of a sign system, as it is closely linked to the processes of signification and interpretation. Considering the foods mentioned above as signs, what are the deeper meanings they have carried throughout history in the context of culture, identity and belonging?

Since semiotics means the science of sign sequences, the concept of sign is the basis of this science. According to Ferdinand de Saussure, the founder of linguistics, it combines a concept with an auditory image, where the auditory image describes the sound structure of the sign and the concept contains the semantic content of the sign. The use of this definition on language is quite easy because language consists of structural wholes that prove that it is briefly a string of signs, and this structural form contains the rules of combination based on the sound structure of hearing, while the semantic content consists of the semantic content formed depending on the structures of the phenomena put forward in accordance with the sound rules as auditory (Holdcroft, 1991, p.7).

By design, semiotics covers many forms of communication in general, including natural language. In the work of Roland Barthes, the last representative of the French semiotics school, first published in 1957, it was claimed that although signs exist naturally within the language structure, they are present in daily life and in the non-linguistic world in many traces and provably (Barthes, 2014, p. 180).

Semiotics, which aims to analyse the universe of meaning, has been used by many people and identified with different concepts. Signs that refer to things different from themselves are structures that contain codes, and the meanings that these codes create by associating with each other create a message to be conveyed to others (Karaman, 2017, pp. 25-26).

The aim of this article is to reveal the cultural functions of food in society and its reflections in the social structure through Roland Barthes' semiotic analysis. In terms of the scope of the research, in this article, the cultural functions of foods known for their consumption in Turkish cuisine and Turkish society; aşure, tantuni, tarhana, Turkish coffee, bağaca and çiğ köfte will be revealed through Roland Barthes' semiotic analyses. Other foods and beverages in Turkish cuisine and culinary history are out of the scope and it is possible for different researches to examine the necessary studies not only in Turkish cuisine but also in all other world cuisines.

The Semiotics of Foods

According to Saussure, language is a string of signs used to indicate concepts. However, it can be compared with writing, symbolic ceremonies, behaviours for politeness and signs of soldiers, but language is the most important of these strings. As a proof of this, a science can be designed to analyse the phenomena of signs in human social life. This new science can be called semiotics by linking it to sociology and consequently to psychology. Linguistics, on the other hand, is only a part of semiotics, so the laws and rules to be set by semiotics will also be valid for linguistics. In this way, linguistics can be connected to this field in such a way that it can cover all human phenomena (Saussure 1998, p.18-19).

According to Saussure (1966), the definition of signs was first expressed as a sound image used with a concept and then this definition was developed as a whole of meaning consisting of signifier and signified (Sassure as cited in Berger 2022, p.99).

However, Saussure put forward the concept of binary opposition, arguing that meanings only acquire meaning in a mutual and opposite context. Concepts are completely opposite and this reciprocity gives them meaning with their negative properties between each other. The studies containing the basic concepts used in semiotics were explained by C.S. Pierce (1931,1935,1958) with three types of signs: Pictorial Sign (icon), Berthical Sign (index) and Symbols (symbol) (Pierce as cited in Berger, 2022, p. 97). Semiotics, which analyses everything as a sign, can be studied in all fields of science, art and cultural works.

Semiotics, in short semiotics, is the science of signs in its most basic sense. The name semiotics derives from the Greek root 'semeion' and has been systematically developed to understand and analyse how signs function and what meanings they carry (Berger, 2022, p.96).

Barthes, one of the important names of semiotics, has mostly worked on the interpretation of popular culture elements with the concept of myth and the method of analysing plain meaning and connotation. Although his early works exhibit structuralist integrity, he is regarded as one of the founders of post-structuralist theory. The method of structural analysis developed by Barthes includes not only the linguistic or literal meanings of terms, but also the phenomena that include various myths with their connotations. Barthes brings all of these phenomena together with semiotics through the concept of signification and emphasises the link between these selected phenomena and their connotative signifiers (Karaman, 2017, p.88).

For Barthes, who tries to make linguistic arguments suitable for semiotics, everything has the potential to be read as sign strings (Karaman, 2017, p.31). In his book Contemporary Discourses (Barthes, 2014, p.7), Barthes states that there is a language beyond the textual, that it consists of discourses (myths), and that there was a situation that spread to all the phenomena of the outside world in his work. The mechanism that allows the discourse (myths) to harbour a natural image of reality is that these phenomena can reproduce themselves and make themselves the norm by people regardless of time and space.

Food is not only a need arising from biological necessity, but also a cultural need. Contrary to popular belief, food is not only for filling the stomach but also has different functions within the society or community with social and cultural meanings. Culinary culture is an important point in drawing boundaries between communities, reminding who the community members are and in the relationship established with the past, that is, in the transmission of social memory, in other words, it is possible to make inferences about the identity and memory of a community by focusing on its culinary culture.

Meals, which are an important subject of culture, are also indicators that bring with them many connotations in terms of the society in which they are located. Important dishes in the kitchens of cultures and regions to which they belong in the historical process contain normative myths valid in the perception of that society, such as the steak and French fries of French cuisine, as discussed by Roland Barthes in his work Contemporary Discourses (Barthes, 1990, p.59).

Research Methodology

Semiotics is a branch of science that analyses the meaning and functions of signs. Developed with the contributions of theorists such as Ferdinand de Saussure and Charles Sanders Peirce, semiotics gains a more cultural dimension with the contributions of Barthes. Barthes, focusing on the concept of myth, argued that signs can be analysed not only on a linguistic plane but also through social and cultural analyses. According to Barthes, myths emerge as a structure of how society perceives reality and reproduces and normatises it. In this context, food can be considered as a cultural signifier.

Barthes' myth analysis model consists of two basic planes of meaning (Berger, 2022, p.107-111).:

- 1. Literal Meaning (Denotation): It expresses the basic, dictionary meaning of the sign.
- 2. Connotational meaning (connotation): It expresses the meanings that the sign has gained in historical, symbolic and social dimensions.

In his studies, Barthes analysed the 'myth' structure hidden behind

social visibility and emphasised that food is not only a nutritional element, but also a sign representing social codes. Signs in the context of food culture were analysed at the levels of denotation and connotation as used by Barthes in his semiotic analysis method, and their social and cultural functions and meanings were examined. The semiotic (connotation) is derived from the Latin connotare meaning 'to write with'. Thus, connotation refers to a concept that comes with historical, symbolic and emotional matters.

The connotation is a concept used to express the cultural meaning attached to a phenomenon, the subject of the phenomenon can be a term, an image or a text. On the other hand, literal meaning defines the real and dictionary meaning of a phenomenon. Plain meaning deals with images, sounds and objects with their literal meanings, including the existing forms of communication. The literal meaning is related to the exact meaning carried by a signifier' (Berger, 2022, p.107-109).

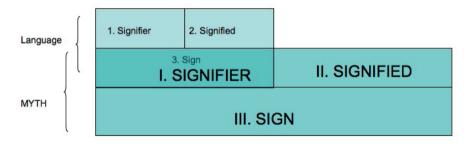


Figure 1 Two Levels of Signification (Barthes, 1972, p.115).

In this research, selected food items; asure, tarhana, tantuni, yaprak sarma, Turkish coffee, çiğ köfte, keşkek and bağaça will be analysed in the context of denotation and connotation levels, which are the theoretical approach of Roland Barthes in semiotic analysis method, and their mythical dimensions will be discovered.

In terms of scope, other foods in Turkish cuisine, especially the cultural heritage of tarhana, and modern global consumption cuisine foods, including world cuisines, are outside the scope of this research, and it is quite possible to apply the necessary analyses with the same method.

Analysis and Findings: Food, Myths and Cultural Adventure

Barthes' myth analysis model has revealed that food is not only an object of individual consumption, but also plays an important role in reproducing social norms and cultural codes. While the historical and social roles of meals overlap with mythological meanings, criticisms have also been made on their place in modern society.

Roland Barthes treats food as a "sign system" and notes the important features that food and language share. The relationship between food and language allows food to be studied from a communicative perspective to explore its sociocultural dimension (Leeds-Hurwitz, 1993, p.86).

The existence of dishes with similar symbolic meanings in different cultures supports the universality of Barthes' theory. For example, the symbolic meaning of steak and French fries in French cuisine may be similar to the meaning planes of tarhana in Anatolia (Barthes, 1990, p.59).

Aşure

Although Ashura, which is cooked in the month of Muharram, is a food, it has different meanings as well as being a tradition in all Islamic societies (Akbulut, 2010, p. 269).

The day of Ashura, which started with the events that took place around the prophets at first and then became known as the representative of sorrow and mourning after the Karbala incident, has been included in Islamic sources in this way. After this event, the day of Ashura, which became an important representative of mourning especially among Shiite Muslims, had the same effect on the Sunni Islamic world in the future (Polat, 2019, p.457).

Ashura, whose origin is known to date back to pre-Islamic times, is a dessert obtained by mixing legumes such as wheat, beans, chickpeas and various dried fruits with sugar, which coincides with the tenth day of the first month of the Hijri calendar. Since it is considered more important to distribute it to friends and relatives than the person who cooks it, it is distributed to friends, relatives and neighbours after it is cooked (Çankal, 2022, p. 42).

Besides being a dessert, Ashura has also been the subject of many religious events. It is also important in terms of emphasising when the events that should not be forgotten in history occurred.

The rescue of Moses' people from the hands of Pharaoh, the acceptance of Adam's repentance, the birth of Abraham and the rescue of Abraham's son from burning, the reunion of Jacob with his son, the drying of Jonah from the belly of the fish, and the day Jesus ascended to heaven were experienced on the tenth day of the first month of the Hijri calendar known as the day of Ashura (Noyan, 1987, p.132).

Ashura, which has an important place in societies from the past to the present, has a great influence on the Ottoman state. During the Ottoman period, Ashura was cooked at two different times. The first one, Muharram Ashura, was cooked to commemorate the event of Karbala, while sefer Ashura was cooked to celebrate the survival of Hz. Zeynelabidin from Karbala and the continuation of the lineage of Hz. Muhammad (Özlü, 2011, p.191).

Ashura, which became a tradition in Topkapı Palace built by Fatih Sultan Mehmet in the Ottoman Empire, has continued to gain a place in the society since then (Özlü, 2014, p.211).

Since Ashura, which was cooked around many rituals in the Ottoman Empire, was perceived in a mourning atmosphere especially in Shiite Islamic societies, the concept of Ashura has gained a sectarian place in both Sunni and Shiite communities. During the period when the Safavids were in power, it was stated in the sources that while Ashura had an important place for the Shiites, it was less important for the Sunnis (Polat, 2019, pp. 105-185).

Due to its place in Turkish society, Ashura was not only a food but also the subject of Ottoman poets' poems. In the poems describing the martyrdom of Hz. Hüseyin and his relatives in Karbala, the tradition of Ashura was mentioned and the poets used the expressions âşûr eyle-, yevm-i 'âşûre, dem-i 'âşûre, mâtem-i 'âşûr as a symbol of mourning (Polat, 2019, pp. 466-467).

Although it is known as an Islamic dish, Ashura is also found in different cultures. In Iran, sholeh zard, which is cooked from rice and saffron similar to aşure, is cooked in Muharram, which is a day of collective mourning. In addition, the tradition of cooking Ashura for the dead continues in Ancient Greece. In Armenia, Ashura is served only on New Year's Eve and on 6 January, the day of the baptism of Jesus Christ (Akbulut, 2010, p.271). As in Armenians, in China, as well as in Armenians, Ashura, which is a New Year's meal, continues to be consumed under the name of 'bao zou' (Işın, 2008, p.260).

Ashura, which is consumed in many cultures, has ceased to be just a meal for the societies in which it exists and has gained a spiritual meaning by becoming a part of belief. In the Bektashi tradition, Ashura, which was cooked for the mourning of the martyrs of Karbala, was cooked both for the end of this mourning and for the celebration of the good news that Imam Zeynel Abidin, the son of Hz. Hüseyin, was alive (And, 2007, p. 61).

Tarhana

Tarhana, which is obtained by fermenting the dough formed as a result of mixing and kneading wheat flour, yoghurt, yeast, various vegetables and spices and is one of our traditional flavours, is widely consumed in our country and is one of the basic food materials especially for Anatolian people (Akbaş & Coşkun, 2006, p.703).

In Turkish culture, it is important for the host to offer food from his/her own culture during the hosting of guests, especially if families from different cultures come together. In this case, tarhana takes place in Turkish culture as an imaginary soup. Tarhana, which is recognised as a cultural image today, is dried and prepared in advance, especially for consumption in winter (Koç, 2016, p.67). Tarhana, which is obtained from the crumbled yoghurt dough used for making soup, also differs according to the regions. In different parts of Anatolia, many types of tarhana are cooked, including red tarhana with yoghurt and göceli, red tarhana with pepper and beans.

Tarhana, which has become an image for Turkish culture, is not only limited to the Turkish community, but is also among the popular foods in Bulgaria and Hungary. Although tarhana is seen as a food source prepared for consumption in winter, the most important point here is the solidarity experienced during the preparation phase. Tarhana is one of the most important of these foods prepared by several people in solidarity, which we know as imece method. The main purpose here was both to make preparations for winter and to ensure that what was made was shared and distributed to homes. In the past, tarhana, which was prepared by gathering spouses, friends, relatives, acquaintances and acquaintances in the past, has started to be made with the gathering of close relatives today. Although there have been minor changes in the preparation method from the past to the present, the most important point here is the unifying feature of tarhana. Tarhana, which is made in a co-operative manner, has become a tradition from the past to the present and has continued to be passed on for generations. In addition to being a food, it has also been a symbol of togetherness (Koc, 2016, p.67).

Tantuni

According to the Turkish dictionary of the Turkish Language Association, tantuni, one of the most famous flavours of Mersin, is a dish prepared by chopping the meat into small pieces and cooking it on a roasting tray with onions and tomatoes (TDK, 2024).

Consumed in many parts of Mersin, tantuni has become a cultural symbol of the city (Süt, 2019, p.37). Tantuni, which is among the street flavours of Mersin, also bears traces of the Turkmen tradition (Özbek & Güzeler, 2022, pp. 311-316). With its history dating back to the origins of Turkmens, tantuni is an important part of Mersin's cultural identity. For Mersin residents, tantuni is not only a street flavour but also a cultural value that has become a symbol of the city (Süt, 2019).

The consumption of ethnic food can be considered an adventure and a form of interaction with the "other". Ethnic food is often an indicator of ethnic identity for a well-defined group of people. However, when the popularity of an ethnic food becomes a mainstream phenomenon, those seeking to profit from an emerging business opportunity can easily commodify the ethnic component of the food. Communicative strategies are applied to create the right food package that can offer consumers the idea that the food is an authentic product of the other (Girardelli, 2004, p.312).

Same Coffee, Two Mythies

Included in UNSECO's Intangible Cultural Heritage List, coffee, especially Turkish coffee, is a cultural heritage dating back to the Ottoman Empire with its unique cooking method, flavour profile and preparation method, as well as defining a national identity (Çaksu, 2019, p.379). As shown in Figure 2a, Turkish coffee is served with water and Turkish delight as a symbol of hospitality; this ritual is a tool that strengthens the value given to the guest and strengthens social ties (Yönet Eren & Ceyhun Sezgin, 2018, p.703). Apart from the basic meaning, Turkish coffee also evokes conversation and hospitality, and such associations are explained in the table, as Barthes (1990, p.59) says, foods with cultural values create myths (myths) that are valid in the perception of the society they belong to.

Table 1 Turkish (Coffee Myth
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Food	Concept	Explanation
Turkish Coffee	Signifier	Two cups of Turkish coffee, coffe pot, Turkish delight, water.
	Signified	Hospitality, service, mutual conversation, dialogue.
	Denotation-	A daily, caffeinated drink.
	Literal	
Figure 2a	Meaning	
	Connotation	The value and care given to the guest, the enhancement of the communication bond between individuals, chatting with each other.
		Drinking Turkish coffee has become a cultural ritual that
	MYTH	represents national identity and the tradition of hospitality and
		strengthens social dynamics.





Figure 2 a) Turkish Coffee

b) Bosnian Coffee

From another point of view, although both coffees are similar in terms of presentation, Turkish coffee and Bosnian coffee can contain important meanings that differ from each other in terms of their presentation as well as their usage. As shown in Figure 2b, Bosnian coffee is drunk in a cup without a handle. Although both beverages have very similar cultural meanings, the

points of divergence are in the structures of the cups. The fact that the cup is handle-less emphasises the separation from Christian influences and an identity specific to Islam. 'The fact that Bosnian coffee is without handles is intended to avoid references to the religious symbols of Serbian Christians; this is a cultural gesture that clearly expresses religious identity.' This coffee has become a religious symbol for the Bosnian people by being consumed in religious ceremonies and special occasions (weddings, engagements, holidays) (Baycar, 2017, p.128).

Food	Concept	Explanation
Bosnian Coffee	Signifier	Coffee cup without handle, coffee pot, Turkish delight (Ratluk).
	Signified	Religious identity, differentiation from Christianity, social rituals.
Figure 2b	Denotation- Literal Meaning	A traditional Bosnian drink.
	Connotation	The emphasis on religious and cultural identity is a ritual inherited from the Ottoman Empire.
	МҮТН	Bosnian coffee represents the Bosnian people's ties with Islam and their efforts to create a religious identity differing from Christianity.

Table 2 Bosnian Coffee Myth

Çiğ Köfte

Just like the place and connotations of steak and potato in French cuisine, çiğ köfte, one of the recipes of Mesopotamia, have meanings for Turkish society and have connotations that are understood by everyone. Çiğ köfte acquires these meanings through various cultural rituals in which it is prepared and consumed (Barthes, 1990, p.59). People came together and consumed Çiğ köfte in many musical cultural celebrations and various rituals, including the celebration/preparation processes before and after the wedding (Alkayış & Yerli, 2020, pp.830-837).

Food	Concept	Explanation	
Çiğ Köfte	Signifier	Kneading a bulgur mixture / appetiser with or without meat mixed with spices and various ingredients on a large tray accompanied by music.	
	Signified	A community performing a ritual in unity, collective cultural entertainment.	

Table 3 Semiotic analyses of çiğ köfte

		Denotation- Literal Meaning	The preparation of a traditional or cultural dish to be eaten by the community in a celebration or ritual accompanied by music.
	Connotation	A sense of togetherness, solidarity, preservation of cultural identity during the ritual.	
	МҮТН	Sıra Gecesi çiğ köftesi is seen as a ritual in which individuals come together to reinforce cultural identity and reflect the spirit of solidarity.	

Bağaça

In this context, if it is necessary to examine Antalya bağaça, this tahini bun, which Thessaloniki and Cretan immigrants added to the cultural richness of Antalya, is frequently consumed during Ramadan and is recognised among the public. Another reason why it comes to the fore with more consumption during Ramadan is because it is believed to keep you full (Güneri, 2022, pp. 60-61). Although there is a picture of Antalya bağaça in Figure 3, the table below includes semiotic analyses.



Figure 3 Bağaça

Tab	le 4	Semiotic	anal	vses c	of Bağaca

Food	Concept	Explanation
Antalya	Signifier	Round shaped tahini buns.
Bağaçası	Signified	Antalya's local gastronomy and historical identity.
Figure 3	Denotation- Literal Meaning	A traditional type of bun.
	Connotation	The influence of migrant cultures and functionality during Ramadan.
	МҮТН	Antalya poğaça is an expression of the richness of local gastronomy and immigrant identity, and a food habit during Ramadan evenings.

CONCLUSION

This study used a semiotic analysis by Roland Barthes to look into cultural and social meanings of Turkish cuisine's foods such as Aşure, Tarhana, Tantuni, Turkish Coffe, Bağaça and Çiğ Köfte. Six variegated foods and beverages, were analyzed not only as tangible objects but also as symbols of cultural heritage and social bonding in between Turkish national and communal values. The analysis showed that each of the food items is a reflection of the social structure, rituals, and historical continuity of the communities that they belong to. Ashure represents religious solidarity and social unity, tarhana symbolizes preparation and communal support, tantuni bridges local gastronomy with modern cuisine.

Whereas çiğ köfte serve as instruments to reinforce solidarity and social integrations in ritual contexts, Turkish coffee comes to express hospitality and national identity and Bosnian coffee then emerges as a religious identification. These foods transcend their literal, or denotative, physical existence to carry deeper, or connotative, meanings reflecting social codes, cultural heritage, and rituals. The model of mythological analysis proposed by Barthes shows how these foods turn into "myths" that help reproduce societal norms and values. In this context, Turkish cuisine is not just a means of nourishment; it is a tangible expression of cultural and social values.

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CHAPTER 4

AN INNOVATIVE APPROACH WITHIN THE DIGITAL MARKETING SPECTRUM: PROGRAMMATIC ADVERTISING AS AN OUTPUT OF ARTIFICIAL INTELLIGENCE

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Introduction

The rapidly developing technology and the significant increase in the internet usage have required digital transformation, which is an indispensable fact of today's business world. Each institution, organization and brand affected by digital has undergone radical changes in almost all of its activities and ways of doing business. While these changes and transformations have been painful, the contributions of digital have also enabled brands to improve their ability to adapt to new conditions and expectations. The evolution of brands' adaptation to digital from an option to an imperative has required the reconfiguration of numerous processes, including production techniques, target audience expectations, marketing strategies, and distribution channels. All of these have revealed digital marketing, which has become an indispensable element of digital transformation. The ease and benefits that digital marketing offers to brands have meant that many of the conventional methods that slowed brands down have now been put aside. The proficient application of digital marketing has been instrumental in the success, survival, and sustainability of brands. Digital marketing is a marketing discipline that emerges from the integration of marketing and technology, processes data and information via internet systems, and effectively disseminates its impact to vast audiences rapidly and efficiently using diverse digital tools. The primary objectives include establishing new communication channels, enhancing relationships with current target consumers, enriching their experiences, engaging potential customers to convert them into consumers, and ultimately boosting sales. Digital marketing employs the internet, mobile phones, tablets, and personal computers, which are essential for daily life, facilitating interaction with consumers/customers at any time, in any location, and under any conditions through rapid and personalized communication via digital channels. Digital marketing is favored due to its measurability, cost-effectiveness, and speed, allowing for the development of personalized marketing campaigns customized to consumers' demographic traits, behaviors, interests, and purchasing patterns. The dynamic nature of digital marketing and especially the constant change in consumer habits have, of course, led to new digital approaches. One of these approaches is programmatic advertising. Emerging with technological developments that have become difficult to follow, programmatic advertising is an output of developments in artificial intelligence and data mining. Programmatic advertising facilitates the utilization of big data through graphic technologies, enabling precise targeting by meticulously tracking and analyzing the advertiser's target audience, thereby optimizing audience selection. This contemporary marketing approach includes purchasing and selling based on automation systems. This study aims to clarify what programmatic advertising, which is a reflection of artificial intelligence and has a profound impact on

the advertising industry, how this technology is used, the advantages that advertising parties (publishers and advertisers) gain from this technology and what the possible disadvantages may be.

Digital Marketing

The most powerful and effective communication type of brands is of course digital marketing. The endless possibilities presented by internet technology and the need to adapt to swiftly evolving consumer expectations and market trends have rendered digital marketing an essential strategy for brands competing globally. In a rapidly evolving environment, brands that exceed conventional marketing strategies have witnessed a profound transformation in market behaviors due to digital marketing, which has significantly enhanced brand accessibility and visibility. Therefore, digital marketing is a marketing strategy aiming to support, protect, and maintain consumer-brand relationships via tools such as the internet, mobile telephones, tablets, etc. that are used already by consumers and by benefitting various opportunities offered by information and communication technologies. Digital marketing concept was firstly used in 1990s. The commercial use of the internet during this period enabled companies to take their first steps towards digital marketing (Holliman and Rowley, 2014). As personal computers and the Internet entered consumers' homes, Web 1.0 enabled access to static information on websites, while Web 2.0 enabled the creation and sharing of content. However, in Web 3.0, a system based on the evaluation of the data obtained through search engines and websites with artificial intelligence has emerged, which extracts information from the content of the sites accessed, generates search-specific results (Gökşin, 2018; Demirli & Kütük, 2010). As the first outputs of this development process, techniques such as SEO and SEM have become popular (Chaffey & Ellis-Chadwick, 2019). During this period, social media platforms also emerged and companies started to use platforms such as Facebook, Twitter and LinkedIn in their marketing activities. Digital marketing evolved significantly in the 2000s and 2010s, propelled by the proliferation of devices capable of accessing digital media (Fierro et al., 2017: 242), with its fundamental principle rooted in a customer-centric paradigm (Todor, 2016: 52). Digital marketing, defined as the formulation of strategies and tactics for systematic execution through the selection of various digital marketing tools (Trejo, 2018, p. 574), is alternatively known as online marketing, internet marketing, or web marketing. Digital marketing is characterized as a management function aimed at profitably identifying, preparing for, and fulfilling the needs of customers or other stakeholders within a digital context or via bit-based objectives disseminated through electronic channels (Taiminen, 2016, p. 390). Kannan and Li (2017, 23) define digital marketing from a broader perspective, describing it as an adaptive, technology-enabled process through which companies collaborate with

customers and partners to create, communicate, deliver and sustain value for all stakeholders. Başer (2020) defines digital marketing as the promotion of products or services through Internet-based digital technologies, whereas Wymbs (2011) describes it as the application of digital technologies to develop integrated, targeted, and measurable communications essential for acquiring and retaining consumers to foster deeper and more robust relationships. Merisavo (2006) defines communication and interaction as the utilization of digital marketing channels and information communication technologies, including the Internet, email, smartphones, and smart TVs, between a brand or company and its customers. The definition of digital marketing, applicable across social media, search engines, the internet, mobile devices, and other channels (American Marketing Association, 2021), has evolved over time. Ultimately, it has developed into an extensive concept that defines the utilization of digital technologies in marketing activities to attract customers, cultivate customer preferences, enhance brand visibility, boost sales volume, retain existing customers, and acquire new customers via digital channels (Kannan, 2017). Alan et al. (2018) characterize digital marketing as a collection of activities that, in contrast to conventional media channels, executes all marketing initiatives via the internet, mobile applications, and other interactive platforms utilized by consumers to facilitate this process while coordinating the brand's advertising and promotion.

 $Digital \, marketing \, tools \, enable \, companies \, touse \, digital \, channels \, effectively.$ Instruments including social media marketing, content marketing, mobile marketing, search engine optimization (SEO)/search engine marketing (SEM), customer relationship management (CRM), email marketing, influencer and affiliate marketing, digital advertising strategies, security and data privacy, as well as sustainability and social responsibility, enable companies to effectively communicate with customers, generate content, analyze data, and manage marketing strategies (Chaffey & Ellis-Chadwick, 2019). The utilization of various tools and continuously advancing alternative methods tailored to the distinct needs and objectives of brands enables them to expand their customer base, enhance visibility, and foster a more robust brand-customer relationship through personalized strategies. Focusing on data-centered effective marketing strategy campaigns customized with especially artificial intelligence and automation has an apparent role in current digital marketing strategies and tools. The ability to analyze big data series rapidly of artificial intelligence today can be decisive and directive in inferential analytic subjects. This has significant advantage for planning and targeting marketing strategies more precisely.

On the other hand, it is best to state that digitalizing and artificial intelligence has led to apparent changes in advertising sector. Digitalization and artificial intelligence, which have paved the way for many changes in both

content and form, have led to the emergence of brand new concepts, strategies, and tools in the advertising world. Programmatic advertising is just one of the related concepts. Programmatic advertising offers advertisers a more effective and efficient approach. Full details on the concept will be provided in the next section.

Artificial Intelligence Output: Programmatic Advertising

One of the root causes of many changes from theory to practice is the possibilities offered by artificial intelligence technology. These possibilities have been the number one agenda item of artificial intelligence in many fields. The primary reason why artificial intelligence attracts so much attention is that it has the ability to perform many tasks without the need for human power, making intelligence not only something unique to humans, but also performing advanced activities in seconds and making almost zero chance of making mistakes while doing so. The literature contains numerous theoretical and practical studies on artificial intelligence, which is highly potent and fundamentally transforms human life. Given that it would be impossible to cover them all here, definitions and some applications of artificial intelligence will be briefly mentioned. According to the Turkish Language Society (TDK), it is defined as "the ability of a computer, a computer-controlled robot or a programmable device to perform functions such as perception, learning, reasoning, decision-making, problem solving, communication, etc. in a human-like manner" (TDK, 2023). In his 2004 article "What is Artificial Intelligence?", John McCarthy defines it as "the science and engineering of making intelligent machines, especially intelligent computer programs" (2007:2). Meanwhile, Max Tegmark, a professor of physics at the Massachusetts Institute of Technology, defines artificial intelligence as "non-biological intelligence" (2019: 60), and Nabiyev defines it as the ability of a computer-controlled machine to imitate and fulfill qualities such as reasoning, generalization and learning from experience that are usually characteristic of humans (2012: 25). Artificial intelligence is also considered to be the ability of a computer or machine to acquire abilities such as reasoning, interpretation, generalization, inference from experience in order to concretize human intelligence (Reese, 2018). Artificial intelligence is a technological development driven by the latest technology and information systems, combining error-free decision-making processes and work schedules, aiming to maximize accuracy and legality while minimizing repetitive problems (Vishnoi, Bagga, Sharma, & Wani, 2018). The definitions thus far indicate that artificial intelligence pertains to computer science and robotics; however, numerous definitions can be found in other fields (Göksel Canbek and Mutlu, 2016). The concept of artificial intelligence is a scientific discipline aimed at creating intelligent machines capable of human-like behavior and cognition (Hoşgör and Güngördü, 2022: 396). The concept of artificial intelligence,

different from its lexical meaning, is the expression of the codes hidden in the neurons of humans, the footsteps on the way to discovering the codes of the brain (Aydın and Değirmenci, 2018: 25). Numerous scientists and politicians regard artificial intelligence as a crucial technological advancement of the 21st century, emphasizing the superior infrastructure and data mining capabilities that this technology will offer. Furthermore, artificial intelligence technologies are expected to create a 15 trillion dollar ecosystem in 2030 (Önder, 2020: 2). Assuming that such an expectation will only have an impact on the business world would be a big mistake. Numerous sectors, including tourism, marketing, advertising, health, etc. have received and will continue to receive their share from artificial intelligence-driven transformation. As AI and machine learning gain prominence across various sectors, comprehending their application in the workplace is essential for companies and brands (Ngai and Wu, 2022). Artificial Intelligence offers many modern software and services that brands can use with its applications in marketing (Binbir, 2021). Examples of these applications include voice search, intelligent content creation, predictive analytics, scoring guidance, predictive customer service, chatbots, marketing automation and dynamic e-mails, Amazon's book or product recommendations, Netflix's series or movie recommendations in line with audience preferences (Eser, Korkmaz and Öztürk, 2022:83). The integration of artificial intelligence into digital marketing processes enables the development of communication strategies in line with consumer preferences and needs through algorithms, enabling precise targeted and realtime targeting. Encompassing numerous technologies, artificial intelligence contributes to various fields such as visual perception (Longoni et al., 2019), decision making, speech and image recognition (Mussa, 2020; Yu, 2022), machine learning, neural networks and natural language processing, as well as programmatic digital advertisements and recommendation systems (Davenport et al., 2020).

Artificial intelligence-supported personalization and customer segmentation, real-time actionable deep insights, content creation, chatbots that aim to improve the quality of communication with consumers, predictive analytics to predict future results by analyzing previous data through machine learning and statistical algorithms, advertising targeting and programmatic advertising are the applications of artificial intelligence in digital marketing.

Programmatic is a method of making media buying fast and efficient using technology that analyzes lots of data in simple terms. The main goal here is to efficiently manage digital advertising applications. This system functions according to the users and their behavior. It increases advertising efficiency by analyzing user data, analyzing the target audience accurately and ensuring that the brand reaches the right audience. It does all these in real time very quickly (Sürücü, 2021: 23). Programmatic advertising in this context refers to

the purchasing and sales processes associated with graphic advertising as a result of the development of data systems that direct the advertising sector as an artificial intelligence output. Programmatic advertising is defined as "realtime digital advertising based on individual ad impression opportunities" (Busch, 2016:7). As an expensive business model, programmatic advertising, which is a method of purchasing, selling, and marketing digital ad impressions with an automated system developed using artificial intelligence, uses webbased technologies to deliver highly personalized ads to consumers in real time (White & Samuel, 2019: 161). Programmatic advertising is a method that integrates data from publishers and advertisers on digital trading platforms, facilitating the automated, rapid, and efficient purchasing and selling of online advertisements (Zeren & Keşlikli, 2019: 315). The most fundamental feature of programmatic advertising is its ability to analyze consumer behavior and its focus on data (Mete, 2021: 436).

Martines et al. (2017) describe programmatic advertising as a contemporary approach to online graphic advertising that utilizes automated systems for the purchasing and selling processes, relying on extensive data (Cui et al., 2011; Lee et al., 2013; Qin et al., 2017; Shan et al., 2016; Kireyev, Pauwels, Gupta, 2016). Offering a holistic approach by combining advertising research and market analysis in a single step, programmatic advertising provides great convenience thanks to the three basic elements of artificial intelligence: data, algorithms, and computing power (Li, 2019: 333). Zhang and Katona (2012) claim that programmatic advertising significantly enhances the efficiency and efficacy of digital advertising campaigns by reducing time and resource expenditure while optimizing relevance. Lambrecht and Tucker (2013) demonstrate that AI-driven programmatic advertising can dynamically adjust to fluctuations in consumer behavior, thereby maintaining the relevance and engagement of advertisements. Programmatic advertising has become a crucial part of advertising within a short period of time. Enabling concepts such as viewability, multi-device, third-party data, real-time auctioning to be included in advertising, programmatic brings advertisers and publishers together through advertisement exchanges via instant bids (IAB Türkiye.org, 2019). The primary advantage of programmatic advertising is its capacity to facilitate advertisers in effectively reaching their target demographics and enhancing customer profiling through audience analysis (Stevens et al. 2016, as cited in Zeren and Keşlikli, 2019: 315). Programmatic advertisements also enable personalized and one-to-one marketing campaigns with detailed supervision. The advancement of data collection tools is facilitating marketers' ability to attain enhanced efficiency, refined targeting, and optimized campaigns more swiftly and effortlessly (Mete, 2021: 438).

The users of programmatic advertising are publishers, agencies, advertisers, and consumers. The first three of these use programmatic advertising to reach consumers (Coşkun, 2020: 254). While there is no definitive differentiation regarding the advertisements commonly employed by broadcasters programmatically, native ads, in-text ads, and video ads are included among those utilized in programmatic advertising (Arslan, 2019: 270). However, it would be right to state that agencies also have an important role in programmatic advertising processes. Agencies can participate in auctions and private auctions and can buy from publishers' inventory spaces. In addition, agencies that invest in technology can use a Trading Desk. Trading Desks are the platforms used by programmatic media buying agencies, allowing them to improve and enhance their ad performance (IAB, 2019). Programmatic advertising has paved the way for advertisers to access detailed and transparent information on the campaign they are purchasing. Consumer preferences are thus tracked with instant updates, and advertisers can easily calculate where and how every penny in their budgets is spent (Stevens et al., 2016: 195).

Utilizing machine learning and sophisticated data analytics to minimize manual placements by ensuring advertisements target the most suitable audiences contains the core of programmatic advertising (Meirezaldi, 2023:1069). The global market size of programmatic advertising, which utilizes algorithms for the real-time purchase and sale of ad space, facilitates automation through data insights and enhances media purchasing decisions by targeting specific audience segments, was USD 78,270 million in 2021 and is projected to attain USD 256,032.77 million by 2031, reflecting an anticipated compound annual growth rate of 12.5%. North America is also the largest spender on digital advertising worldwide. The region's advertising market shows that advertisers allocate significant budgets to programmatic advertising campaigns. Europe is the second largest shareholder of programmatic advertising market share (Business Research Insights, 2024).

Programmatic purchasing occurs through two techniques. The first is direct programmatic and the second is real-time auctioning. In programmatic advertising, real-time bidding is the most well-known and understood programmatic concept (Martinez-Martinez et al., 2017). To briefly mention the working system of programmatic advertising, the process covers several stages (iabtr.org report): "The visitor opens the page, in the background the publisher/network adserver tries to find ads suitable for the visitor in its system. If not, it sends the ad impression to the SSP or Ad Exchange and asks them to sell it. SSP / Ad Exchange auctions ad impressions by adding information such as location, time, publisher, etc. and asks advertisers for their bids to show ads. Advertisers, through DSPs, evaluate and bid on the impression that the SSP / Ad Exchange offers for auction. The winning advertiser's ad is displayed on the site. A second-price auction is used here. This means that if the bids are, for example, TRY 1, TRY 2 and TRY 10, the bidder bidding TRY 10 wins the

auction, but pays a price that is symbolically slightly above the second bid of TRY 2, i.e. TRY 2.1. This whole process is completed in around 100ms, in the blink of an eye." Advertisement Exchanges (Ad Exchange), Data Management Platform (DMP), Demand Side Platforms (DSP), Supply Side Platforms (SSP) and Trading Desks are critical actors in the completion of the relevant process (IAB, 2019).

Opportunities Provided by Programmatic Advertising and Some **Examples from the World**

Programmatic advertising presents both advantages and disadvantages, as it integrates extensive data from publishers and advertisers with digital platforms, facilitating the automated, expedited, and more efficient purchasing and selling of online advertising. One of the key advantages is the ability of programmatic platforms to perform precise targeting, thus adopting a more focused approach (Meirezaldi, 2023:1073). The efficiency and automation it brings to the ad purchasing process, automating media purchasing, guaranteeing optimal pricing, reducing overhead costs through automation, minimizing human error, accelerating ad delivery, and providing advertisers with agility in a dynamic digital environment are noteworthy advantages (Palos-Sanchez et al., 2019). Real-time optimization, greater reach, better measurement and insights, and better control over budgets are among the main benefits (Worldef Foundation, 2023). Although programmatic advertising has numerous advantages, it also has disadvantages. Although programmatic advertising has revolutionized how brands reach their target audiences, there are potential challenges accompanying this automated system. For example, concerns about ad fraud, lack of transparency and control, brand safety and privacy concerns, etc. (z2adigital, 2023).

Despite its disadvantages, advertisers prefer programmatic advertising as it offers many advantages, allowing them to benefit from a variety of engaging ad formats that they can run on different channels and platforms globally, and use advanced targeting combinations to reach exactly the people they want to reach. For example, Netflix's Personalized Watch Recommendations are one of the best uses of programmatic technology in recent years. The platform recommends content based on what users have already watched, their watching habits and interests. Spotify uses programmatic advertising by creating Personalized Playlists and Custom Playlists based on users' music likes and listening habits. The best examples of programmatic advertising for broadcasters are as follows (Munro, 2024):

Auto Trader: As a leading digital automotive marketplace, it has faced challenges in optimizing its ad spend and improving its cost per purchase (CPA). It decided to develop its programmatic advertising strategy through a partnership with a new demand-side platform (DSP). This change has allowed Auto Trader to target high-value audiences more precisely. Auto Trader achieved a 90% improvement in cost-per-purchase (CPP), more targeted lead generation, and increased ad spend efficiency.

- **John Lewis:** In response to its declining profits, UK-based store John Lewis aimed to revamp its advertising strategy over the Black Friday weekend, developing a programmatic approach that allowed it to achieve significant advertising visibility at optimized costs for the day through a programmatic partnership. This strategy resulted in a 346% higher return on investment than the targeted amount and optimized advertising costs.
- Lacoste: During a summer sales period, Lacoste aimed to increase its sales in three key markets: France, the UK, and Germany. The brand targeted key audiences through a multi-channel marketing campaign using programmatic display advertising and significantly improved sales. After extensive audience analysis, the programmatic technology used to create customer profiles resulted in 19.75 million impressions and a total sales force of 2,290 in key target markets.
- The Economist: The British magazine The Economist aimed to broaden its audience appeal by targeting potential readers who had previously been hesitant to try the publication. The magazine used subscriber data to customize content, establishing seven sections that correspond to essential magazine categories, including finance, politics, and technology, while employing programmatic advertising to generate lookalike audiences derived from current subscriber profiles. Using context from the webpage and realtime data from audience profiles, it created the content distribution and analyzed various datasets to segment audiences. It has also used programmatic ad purchasing to serve personalized ads that link to relevant articles in the content hub. The results were remarkable, with 650,000 new leads and a 10% return on investment on a media budget of GBP 1.2 million (\$1.46 million).

Results and Assessment

The conventional business practices of companies and brands in the digital realm, which has undergone substantial technological transformations recently, have fundamentally altered in scope. The profound impact of artificial intelligence technology on all sectors has had a profound impact on the advertisement industry, and the integration of artificial intelligence into all marketing activities has created radical transformations in digital marketing. Despite being a commonly encountered concept, it remains remarkably ambiguous, and the role of AI in digital marketing strategies has been examined theoretically and practically, at various times and from diverse perspectives. The integration of AI into digital marketing has either re-invented many strategies, tools and techniques or paved the way for entirely new inputs and outcomes. One of the most up-to-date tools

used in digital marketing and preferred by users as an output of artificial intelligence is programmatic advertising. Programmatic advertising denotes the utilization of software that automates the acquisition, positioning, and enhancement of digital advertisements (Worldef, 2023). The opportunities that programmatic advertising offers, especially to users (such as advertisers), have made this technique popular in recent years. The identification of specific target audiences, real-time measurement of ad effectiveness, and emphasis on various targeting options, mediums, and ad types have sustained user interest in programmatic advertising. Programmatic advertising enables a symbiotic relationship that benefits brands, consumers and advertisers. Moreover, due to the evident inefficiencies of conventional advertising purchases and the escalating challenges in managing the evolving attitudes and behaviors of target audiences as technology advances, the automation features and extensive realtime analytics of programmatic advertising are conserving significant time and resources for numerous marketers. Programmatic advertising offers the promise of real-time bidding, direct purchases, and unprecedented efficiencies despite the complexity of supply-side platforms and demand-side platforms. The study includes examples of programmatic advertising practices of a few publishers seeking to optimize their advertising operations. Examples show that a programmatic advertising campaign can significantly reduce cost per purchase (Auto Trader), real-time adjustments can significantly increase sales and reach (John Lewis), programmatic strategies can reduce periodic costs for brands (Lacoste), and well-portioned, personalized and real-time data analysis can increase engagement and return on investment. All of this demonstrates that programmatic advertising has the power to redefine industry norms and that its impact will grow exponentially in the long run.

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