Investigation of the Awareness of Automated News in terms of Public Opinion: Artificial Intelligence Journalism

İlknur Aydoğdu Karaaslan[1], Baha Ahmet Yılmaz[2], Yağmur Karadağ[3]

[1]Assoc. Prof. Dr.,Ege University,Türkiye, ilknur.karaaslan@ege.edu.tr
[2]Doctorant, Ege University, Türkiye, drbahayilmaz@gmail.com
[3]Doctorant, Ege University, Türkiye, yagmurkaradaag@gmail.com

Abstract

Developments in information and communication technologies have created change and transformation in news production and reading habits, and the use of artificial intelligence in the journalism sector has become inevitable as the process transforms society. With artificial intelligence journalism, news can be produced and edited quickly. However, this speed and automation can create problems for readers in terms of accuracy and detail in consuming the news. In this context, the roles of journalists are also changing, and they are effective in checking the accuracy of news and developing public awareness. Automated news production has developed with the use of artificial intelligence-based software. In the automated news production process, which has come to the agenda through artificial intelligence, the automated creation of news through a number of algorithms and software and its rapid presentation to consumers has taken its place in the new generation journalism. Therefore, with the use of artificial intelligence in news production, public awareness should also be taken into consideration. This study investigates public awareness in the context of automated news production and news reliability, objectivity, confidentiality, employment problems of journalists and ethical rules. The independent variables of the study are the gender, age, education and occupation of newspaper consumers, while the dependent variables are the public opinion on the characteristics of the news in the face of news produced with artificial intelligence. The population of the study consists of individuals who use social media, read digital newspapers and are over the age of 18, while the sample consists of 400 people who voluntarily responded to the study. In the study, half of the participants are aware of the concept of artificial intelligence and that news is sometimes produced with artificial intelligence. Most of the participants think that weather news is produced by artificial intelligence, as well as economy, earthquake, weather and sports news are all produced automatically. The majority of the participants think that they are concerned about the reliability of the news produced by artificial intelligence, that these news are more qualified and more reliable than the news produced by the traditional news production process. Some of the participants also think that their news needs should be met through news produced by artificial intelligence today. It has been also found that there were significant differences between the gender, age and occupational groups of the participants and their attitudes towards news produced by artificial intelligence.

Keywords: Artificial Intelligence Journalism, Automated News, Public Awareness.

Artificial intelligence is one of the fields of computer science in which digital machines and computers are given the ability to simulate the behaviour of individuals and perform certain tasks for operations that require thinking, decision-making, cognitive processes (Aggarwal et al., 2022; Rammo & Al-Hamdani, 2022). In other words, artificial intelligence is defined as the science and engineering of making human-like intelligent machines, especially intelligent computer programmes (McCarthy 2004, p.7). In addition, artificial intelligence is used to reach a solution in the case of analysing data with big data analysis in the digitalised world. Since the concept of big data and the reliability of data sources is difficult to determine, algorithms are needed (Aysel, 2022, p.917).

Currently, thanks to big data analysis and artificial intelligence technologies, large amounts of data can be processed quickly. This includes creating news headlines, data mining and automated reports on specific topics. In this respect, this journalism approach can enable journalists in traditional media to focus more on in-depth and detailed news research. In addition, with artificial intelligence journalism, news can be produced and edited quickly. However, this speed and automation can create problems in terms of accuracy and detail. In this context, journalists step in to ensure the accuracy of news, share it with the public and create human sensitivity. In addition, with artificial intelligence journalism, the opportunity to make data-oriented news increases even more. Therefore, with the realisation of artificial intelligence journalism, roles in the journalism profession may also change. For example, while basic reporting tasks can be performed by robots, journalists can focus more on analytical thinking, deep research, interviewing and creative writing skills (Etike, 2023). On the other hand, the development of artificial intelligence-based journalism also leads to a decrease in the employment of journalists. In addition, there may be new challenges and concerns about ethics and responsibility for testing the objectivity of news. The importance of journalists involved in the process still remains a key issue in journalism, including sensitisation of social issues, subjective assessments and social ethical issues.

Moreover, with regard to the functions carried out by algorithms, their use in the news industry is roughly divided into several areas; such as data mining, topic selection, comment moderation and text writing (Miroshnichenko, 2018, p.4). In addition, artificial intelligence-mediated news production is also used to simplify the workflow process, to ensure the use of big data, to free journalism and journalists by removing the routine workload of journalists, to expand the content of the news, to ensure the intensive realisation of polyphony and to improve interaction with readers (Etike, 2023, p.598). In other words, combining journalism and reporting practices with artificial intelligence technologies has the potential to eliminate or minimise the time and space limitations of traditional news production methods. At the same time, this type of journalism offers the chance to optimise needs such as economic resources. This approach also contributes to the reduction and change of requirements for editorial and broadcasting processes. While artificial intelligence improves the collective functioning in the media sector, it also reduces the need for human labour in production and broadcasting processes (Kaya Erdem, 2021, p.899). Therefore, it is seen that artificial intelligence, which provides an easy production and distribution process of news, affects the public's information process and changes and transforms their awareness about various social issues. The subject of this study is

the production of automated news and the objectivity of news in the context of ethical rules, reliability of objectivity, confidentiality, employment problems of journalists who have an impact on these issues and public awareness.

Automated News: Artificial Intelligence Journalism

Content produced with artificial intelligence affects the news production process. In this context, artificial intelligence technologies such as machine learning, natural language processing, analysis and learning of computer images, speech recognition, natural language processing, planning, programming and optimisation, expert systems and robotic artificial intelligence journalism come to the fore (de-Lima-Santos & Ceron, 2022, p.15; Aysel, 2022).

Artificial intelligence journalism is a computer and software-oriented journalism approach in which data and information about the news are collected through various algorithms (Işık et al, 2022; Hamilton & Turner, 2009; Montal & Reich, 2017). Automated news production has developed with the use of artificial intelligence-based software. Thanks to artificial intelligence-based software using NLG technology such as Wordsmith, Quill, Heliograf, Quake Bot, it is possible to produce news without journalist intervention or with partial intervention. Major news organisations such as The Washington Post, The New York Times, Yahoo, Forbes actively use artificial intelligence software in automated news production. News organisations can employ their own software developers for automated news production, or they can receive software support from IT and technology companies. Technology and IT companies such as Narrative Science, Automated Insight, Arria, AX Semantics, Tencent, Retresco provide software support to news organisations (Dör, 2016, p. 712). Today, many newspapers experience artificial intelligence-supported journalism and include it in the news production process.

The artificial intelligence news production process is carried out in five stages. In the first stage, artificial intelligence robots find data by analysing databases. In the second stage, the data are cleaned and made ready for use. In the third stage, the priorities of use are determined according to the news value of the data, and the ranking of the content in the news is carried out. In the fourth stage, the semantic structure of the text, such as its compliance with the editorial policy of the news organisation, is set. In the fifth and final stage, linguistic features are reviewed and the news is published (Graefe, 2016, p.18). When artificial intelligence technology is evaluated in terms of changing journalistic practices, there are three stages. At the first of these stages, the automated daily reporting process and the automated reporting of data enable journalism to be done quickly. The Associated Press used artificial intelligence in reports prepared for the earnings of organisations. The partner of Narrative Science, a company based on data storytelling, states that artificial intelligence will write close to 90% of the articles. The second is to make faster predictions, and the third is to reduce barriers to entry (Hall, 2018).

Currently, studies are being carried out with artificial intelligence to produce not only some but all of the news on news websites. "Knowherenews.com" and "TheBipartisanpress.com" news websites can be given as examples of sites that practice journalism with artificial intelligence. It should be noted that the news on these sites have news content that is almost entirely produced or controlled by artificial intelligence (de-Lima-Santos &Ceron, 2022, p.14). In Türkiye, media organisations and news agencies are developing various applications to analyse news in depth, produce data-driven content and present it to readers faster by using data science and artificial intelligence technologies. The use of artificial intelligence-based journalism is becoming widespread, especially in areas such as sports and weather. However, with the widespread use

of artificial intelligence journalism, problems related to ethics and good content may also arise. Journalists have a great importance in establishing an emotional connection with the news and understanding and experiencing the news in depth. This situation also reveals the importance of the human factor in the news content prepared by artificial intelligence.

Artificial intelligence is used in the field of journalism to produce and report content, as well as to decide what will be news, increase subscriptions and detect user behaviour (Stray, 2019, p.3). In addition, the functions carried out by algorithms in the news industry are divided into several areas such as data mining, topic selection, comment moderation and text writing.

Automated news is news that is produced using artificial intelligence and presented to the public. The news presented are produced in written or audio formats using technologies such as artificial intelligence algorithms, big data analysis and machine learning. Today, automated news, in other words, artificial intelligence journalism, is important in terms of individuals' access to news, the content and quality of news, the security of information and awareness of news.

In the news production process produced with artificial intelligence, the rapid access of the reader to the news and the automated production of news with a number of algorithms and software have taken their place in new generation journalism (Narin, 2017). The aim of the study is to determine the opinions of individuals with different demographic characteristics towards news produced with artificial intelligence and to investigate how automated news is evaluated in terms of public opinion.

Impact of Artificial Intelligence Journalism on Public Opinion

Artificial intelligence is used at many important areas in the field of journalism. These areas include data mining, topic selection, comment moderation, and text writing (Miroshnichenko, 2018, p.4). In 2019, according to the results of a study carried out on journalists, artificial intelligence is used in the areas of news gathering, news production and news distribution. The news gathering stage includes finding information sources, creating story ideas, identifying trends, research, monitoring events or problems, and extracting information or content, while the news production stage includes creating content, editing content, packaging content for different platforms, creating text, images and videos, and reusing content for different audiences. In the last stage, the news distribution stage, there are personalisation, marketing, finding audiences, understanding user behaviour, monetisation/subscriptions (Yıldızgörür, 2023, p.568). In this context, the increase in these areas day by day makes the accuracy, reliability and impartiality of news produced with artificial intelligence questionable. In addition, there are ongoing debates on issues such as whether artificial intelligence will replace the professional performance of journalists and bring limitations to them in employment, whether artificial intelligence, which has gained a great momentum in routine journalism, can be used in investigative journalism, who should be rethought the identity of “journalist” with the intensive use of artificial intelligence, and so on.

Among the basic responsibilities of journalists, it has become increasingly important to confirm the accuracy and reliability of the news on behalf of the public. Especially in recent years, these problems have been encountered in news produced with artificial intelligence. Therefore, the use of artificial intelligence in the field of journalism brings along important problems, and media organisations and journalists who share news without verifying the accuracy of the news are faced with losing their credibility and reputation.

In journalism with artificial intelligence, it is possible to produce news, to access, collect and distribute faster and more data than human hands. However, it is necessary to state that the use of artificial intelligence in investigative

journalism is still incomplete. Because although the subject of the news, even if the data to be accessed is publicly available, it is possible for a journalist who is an expert in his/her field to follow the data in question, to investigate it in depth and to make discussions about the data, while it is not possible for artificial intelligence to establish these connections. In the meantime, it is impossible for artificial intelligence to access data that is not available in the digital environment. This situation imposes a limitation on the news source. In addition, it is very difficult for artificial intelligence to make connections between seemingly complex data in a research news, to understand and interpret the complex relationships between different data and documents. Lastly, since verification of data is also important in research news, it is not possible for artificial intelligence to perform this verification alone (Stray, 2019, pp.4-12). At this point, it is not possible to prepare investigative news in journalism to be carried out with artificial intelligence with today's technologies, and journalists are still needed in the stages of making sense of the news, establishing connections and combining them.

With the rapid introduction of artificial intelligence into all areas of life, opinions that existing professions will disappear are also on the agenda. Among these professions, journalism is also shown. The idea that journalists can be completely replaced by artificial intelligence is frequently the subject of discussions. It is stated that news writing algorithms aim to replace journalists as the ultimate goal, that artificial intelligence can be used to write news just like journalists, and that they can even aim to write even better news (Moschovakis, 2001, p.2). In today's conditions where authentic journalism is very important, chatbots based on artificial intelligence are frequently used, especially in internet journalism. These robots, which act as news editors, can write an authentic news story from start to finish with the given keywords, or they can authenticate an existing news story. Although this situation supports the view that there will be no need for journalists in the future and that the work of journalists can be carried out by chat robots and algorithms supported by artificial intelligence, it is a fact that journalists will always be needed to ensure the accuracy and reliability of the news.

For example, the free version of Chat GPT, which is widely used today and made available to users in November 2022, and Gemini, a chatbot developed by Google AI and made available to users in March 2023, can create authentic content based on the information available on the internet at certain time intervals and respond to questions asked in a short and concise manner. Journalists who want to write routine news and obtain information on a subject should definitely check the answers given by these chatbots, and if they do not, important problems may occur in the news. In addition, if the information collected by artificial intelligence on the internet is used in the news, the issue of copyright is also a matter of debate. On the other hand, the profession of journalism does not only mean collecting and writing news at the computer, but also requires instantly transferring the events to the society from the places where hot developments are taking place or in the studio environment, and reporting. In this respect, all these controversial points in artificial intelligence journalism are proof that no matter how much artificial intelligence develops, journalists will always be needed.

Another controversial point regarding the news produced with artificial intelligence is whether artificial intelligence is biased or not. Artificial intelligence is biased in one aspect by its nature (Gills, 2023). For this reason, it is important that journalists are always knowledgeable and educated about artificial intelligence. Only in this way, journalists can recognise important nuances such as religion, gender, race in news prepared using artificial intelligence and make the necessary corrections. All these evaluations also reveal the effects of artificial intelligence journalism on public opinion.

Application

Aim of the Study

The aim of the study is to reveal the opinions of individuals with different demographic characteristics against the news produced by robot journalism known as automated journalism, to investigate how these news are evaluated in terms of public opinion and to reveal the awareness of individuals due to the increase in the speed of access to news independent of time and space due to the digital environment of newspapers and the frequent use of ICT technologies.

Importance of the Study

In the study, it is important to reveal whether the public trusts journalism made with artificial intelligence and to determine whether this journalism approach creates awareness in the public. The impact of artificial intelligence in the journalism sector, replacing journalists in situations such as accuracy, confidentiality, reliability, impartiality in news increases the importance of the study.

Variables in the Study

The independent variables of the study are gender, age, education, occupation, while the dependent variables are the news consumption process and public opinion.

Hypotheses of the Study:

H1: Individuals' demographic characteristics (age, gender, occupation, job (being a public or private sector employee)) affect their opinions on artificial intelligence journalism.

When the studies carried out in the literature are examined, it is seen that the perspectives of journalism students towards artificial intelligence journalism have changed due to their professions in the journalism profession, which has been reshaped with artificial intelligence (Demirtaş & Çınar, 2024, pp.17-24).

H2: The demographic characteristics of the participants are effective on the belief that the source of the news produced with artificial intelligence can be accurate.

H3: The belief of individuals who consume newspaper news produced with artificial intelligence that today's journalism profession has also changed varies according to demographic characteristics.

Studies show that artificial intelligence and robot journalism produce more and faster news than journalism in traditional media, making it easier to follow news (Sayar, 2021).

H4: News produced with Artificial Intelligence journalism is considered reliable by the public.

Population and Sample of the Study

The population of the study consists of individuals who use social media, read digital newspapers and are over the age of 18. Türkiye Digital 2023 report states that while the number of active social media users worldwide is 4.7 billion, it is 62.55 million in Türkiye (https://www.guvenliweb.org.tr/dosya/HQTLP.pdf).

When the sample size of the study is evaluated with reference to the sample table prepared by Statistics Canada, 2010, p.155 and Neuman, 2010, p.351, the minimum required sample size is 400 when the population size is 10 million at 0.05 significance level.

Methods and Tools for Data Collection

In this study, the literature has been reviewed in the context of "Investigating the Awareness of Automated News in terms of Public Opinion" and online survey questions were prepared by the researchers. The number of questions in the questionnaire is 36 and consists of multiple choice and Likert scale type questions. The study questions are not prepared with a ready-made scale, but consist of Likert scale type questions prepared by the researchers.

With the advancement of technologies and the transfer of surveys to the digital environment, online surveys, which are frequently used by everyone, are frequently used today. The data in the study will be obtained with the voluntary participation of social media users. Since the data

to be obtained from social media will be obtained from active social media users who read digital newspapers, it has been deemed appropriate to use the online survey form. Online questionnaires created through Google Forms were sent to social media users.

The questionnaire, which is used to reach the information, feelings and thoughts of individuals, is carried out verbally or in writing. The information targeted to be obtained as a result of the questionnaire provides quantitative and qualitative data to the researcher about the individual himself/herself, his/her environment or the institutions with which he/she is in contact. The desired data can be obtained through tools such as face-to-face interviews, written mail or telephone (Büyüköztürk, 2005). Currently, with the development of technology, it has become possible to collect data easily through online surveys.

Participants are included in the study on the basis of volunteerism with simple random sampling method. Therefore, the attached questionnaire will be applied to individuals who actively use social media, read digital newspapers and participate in the survey voluntarily and data will be obtained.

Data Analysis and Evaluation Method

The data obtained after the online questionnaire applied in the study were analysed with the SPSS package programme, which is a statistical programme frequently used in social sciences. At the evaluation of the data, first of all, the data will be analyzed whether it complies with the assumption of normality and the answer to the question of whether parametric or non-parametric tests will be used is sought. Then, relevant analysis techniques will be applied according to the structure of the data. In these analyses, it is aimed to obtain some results from the frequency distribution of the variables, the relationships between the variables and which variables affect the study in which direction. While evaluating the opinions of the participants on artificial intelligence journalism today and in the future, the relationships between demographic information and attitudes towards artificial intelligence news were analysed with chi-square analysis through 20 Likert-type questions. In order to meet the assumption regarding the number of participants per cell in the chi-square analysis, the 5-point Likert-type questions were converted into 3 categories; “Strongly Disagree” and “Disagree” categories were combined and stated as “Disagree”, “Strongly Agree” and “Agree” statements were combined and stated as “Agree”. In addition to these, there is an “Undecided” category in the centre. For demographic characteristics, some categories were combined and analyses were applied. No significant relationship has been found in any of the questions analysed with the level of education. This situation is considered as a result of the fact that the participants' access to news is facilitated by the opportunities provided by mobile technologies independent of their education level. Therefore, it is also an indication that the study is limited to social media users.

Study Findings and Reviews

Analysing the Demographic Characteristics of the Study

Among the participants in the study sample, 60.8% (n=188) were female and 39.2% (n=121) were male. Approximately half of the participants (46.9%, n=145) were between the ages of “18-29”, 15.2% (n=47) were between the ages of “30-39”, 19.1% (n=59) were between the ages of “40-49” and 18.8% (n=58) were between the ages of “50-69”. While 80,5% of the sample has a bachelor's degree, 7.7% (n=24) have high school and below education and 11.7% (n=36) have postgraduate education. 50.6% (n=156) of the participants were single, 42.5% (n=131) were married and 6.8% (n=21) were divorced/widowed. 35.1% (n=108) of the sample were students, 31.2% (n=96) were public sector employees, 17.9% (n=55) were private sector employees, 3.6% (n=11) were housewives, 6.8% (n=21) were retired, 1.3% (n=4) were tradesmen

and 4.2% (n=13) were in other occupational groups.

Analysing Opinions on Artificial Intelligence Journalism Today and in the Future

While 50.2% (n=155) of the participants stated that they rarely read digital newspapers, 38.5% (n=119) stated that they read digital newspapers frequently and 11.3% (n=35) stated that they never read digital newspapers. It is understood that almost all of the participants (99.0%, n=305) have knowledge about the concept of artificial intelligence. It has been determined that only 0.6% (n=2) of the participants had never heard of artificial intelligence. Those who know that news is produced automatically with artificial intelligence constitute approximately half of the participants (51.5%, n=159).

Those who are aware of artificial intelligence journalism think that weather news (30.1%, n=93) is produced automatically the most, followed by economic news (23.6%, n=73). The least automatically produced news are earthquake (11.0%, n=34) and sports news (12.3%, n=38), respectively. Approximately half of the participants (50.8%, n=157) think that all of the economy, earthquake, weather and sports news are produced automatically.

While the majority of the participants (82.5%, n=255) stated that they were concerned about the reliability of news produced with artificial intelligence, 36.4% (n=112) thought that these news were of better quality and 20.8% (n=64) thought that they were better than the news in traditional media. Only 21.6% (n=66) of the participants think that their news needs can be met through news produced with artificial intelligence, while a large majority (78.0%, n=243) think that their needs will not be met.

Approximately half of the participants (50.5%, n=149) think that the use of artificial intelligence in the journalism sector is advantageous, while the other half (47.5%, n=140) do not see it as advantageous. Among the reasons why they think it is advantageous, “fast access to data” (36.6%, n=113) has the highest rate. Other reasons are “fast news flow” (33.8%, n=104), “evaluation of social media interactions” (24.6%, n=76), “providing personalised news analyses” (21.4%, n=66) and “providing interactive media” (18.8%, n=58).

Those who think that the use of artificial intelligence in the journalism sector is disadvantageous stated reasons such as “not being able to produce news like a journalist” (25.6%, n=79), “not being reliable” (23.9%, n=74), “causing an increase in unemployment in the sector” (22.0%, n=68) and “not being able to access accurate news” (11.0%, n=34).

It has been determined that 43.0% (n=131) of those who faced artificial intelligence news when they opened the news channel felt neutral/normal, while a very small number (6.5%, n=20) felt good/very good. The majority of the participants (78.2%, n=233) trust traditional media journalism news more than artificial intelligence news. 46.6% (n=142) of the participants think that artificial intelligence news will be complementary to traditional media news production processes in the future, and 43.0% (n=131) think that artificial intelligence will have an important role. A very small number of participants (9.8%, n=30) think that the important role of traditional news production processes will continue in the future.

Artificial Intelligence Awareness According to Gender

When the relationship between gender and attitudes towards artificial intelligence journalism is evaluated, it has been found that artificial intelligence news is interesting compared to traditional media news ($\chi 2(2)=6.074$, $p= 0.048$), the impartiality of news produced with artificial intelligence ($\chi 2(2)=6.228$, $p=0.044$) and reducing the cost of news production ($\chi 2(2)=10.786$, $p= 0.005$) at 0.05 significance level. In this context, it should be noted that the individuals participating in the study think that artificial intelligence-mediated journalism is impartial and that the news produced by artificial intelligence is more interesting compared to traditional media

journalism. At this point, the gender of the individuals is effective. At the same time, the gender of the individuals who contributed to the study also affects the idea that the understanding of journalism carried out with artificial intelligence leads to a decrease in cost when compared with journalism in traditional media in terms of cost. In this respect, it is necessary to state that the view towards these three attitudes changes according to gender.

Table 1.Analysing the Relationship between Gender and Artificial Intelligence Journalism Attitudes

Item				χ^2, p
Artificial Intelligence can make news content more interesting.				
	Disagree	Undecided	Agree	
Female	32.4%	27.7%	39.9%	$\chi^2(2)=6.074$,
Male	42.7%	16.2%	41.0%	p= 0.048
News produced with Artificial Intelligence ensures impartiality.				
	Disagree	Undecided	Agree	
Female	31.4%	33.1%	35.5%	$\chi^2(2)=6.228$,
Male	44.9%	22.9%	32.2%	p=0.044
Artificial Intelligence reduces costs in news production.				
	Disagree	Undecided	Agree	
Female	24.9%	26.0%	49.1%	$\chi^2(2)=10.786$,
Male	29.3%	10.3%	60.3%	p= 0.005

Artificial Intelligence Awareness according to Age

When the relationship between age and attitudes towards artificial intelligence journalism is evaluated, it has been determined that there has been a significant relationship between speed and diversity of artificial intelligence news ($\chi2(2)=6.037$, p= 0.049), gathering information from a large number of multiple sources ($\chi2(2)=12.049$, p= 0.002), objectivity of artificial intelligence news content ($\chi2(2)=7.636$, p= 0.022), reality ($\chi2(2)=6.895$, p=0.032), authoritarianism ($\chi2(2)=9.153$, p=0.010), refutability ($\chi2(2)=13.067$, p= 0.001) and objectivity ($\chi2(2)=12.171$, p= 0.002) at the 0.05 significance level. At this point, there is a significant relationship between the ages of the individuals participating in the study and the fact that they think that the news produced by artificial intelligence makes a difference in terms of speed and diversity and that artificial intelligence gathers a lot of information from many sources. At the same time, the age of the individuals is also effective in terms of the objectivity, reality, authoritarianism, objectivity, and the idea that news produced with artificial intelligence refutes falsehoods.

Table 2. Analysing the Relationship Between Age and Artificial Intelligence Journalism Attitudes

Item				χ^2, p
Artificial Intelligence can deliver faster and more diverse news content.				
	Disagree	Undecided	Agree	
“18-29” years old	23.6%	18.6%	57.9%	$\chi^2(2)=6.037$,
30 years old and above	36.6%	17.0%	46.4%	p= 0.049
Artificial Intelligence can gather information by searching a large number of sources.				
	Disagree	Undecided	Agree	
“18-29” years old	17.9%	6.4%	75.7%	$\chi^2(2)=12.049$,
30 years old and above	31.2%	12.3%	56.5%	p= 0.002
Artificial Intelligence can increase the objectivity of news content.				
	Disagree	Undecided	Agree	
“18-29” years old	25.7%	29.3%	45.0%	

30 years old and above	39.4%	29.0%	31.6%	$\chi^2(2)=7.636$, p= 0.022
Artificial Intelligence can improve the authenticity of news content.				
	Disagree	Undecided	Agree	
"18-29" years old	37.7%	35.5%	26.8%	$\chi^2(2)=6.895$,
30 years old and above	51.0%	22.9%	26.1%	p= 0.032
Artificial Intelligence can make news content more authoritative.				
	Disagree	Undecided	Agree	
"18-29" years old	31.9%	38.4%	29.7%	$\chi^2(2)=9.153$,
30 years old and above	48.7%	25.7%	25.7%	p=0.010
Artificial Intelligence can refute false news and rumours.				
	Disagree	Undecided	Agree	
"18-29" years old	32.8%	40.9%	26.3%	$\chi^2(2)=13.067$,
30 years old and above	50.6%	22.7%	26.6%	p=0.001
News produced with Artificial Intelligence ensures impartiality.				
	Disagree	Undecided	Agree	
"18-29" years old	26.6%	33.1%	40.3%	$\chi^2(2)=12.171$,
30 years old and above	46.4%	25.2%	28.5%	p= 0.002

Artificial Intelligence Awareness according to Occupations

When the relationship between occupational group and attitudes towards artificial intelligence journalism is evaluated, it has been determined that there has been a significant relationship between the increase in news applications produced with artificial intelligence ($\chi2(6)=12.942$, p=0.044), the ability to collect information by searching many sources ($\chi2(6)=18.862$, p= 0.004), refuting false news and rumours ($\chi2(6)=17.979$, p= 0.006), impartiality of the news produced ($\chi2(6)=13.214$, p= 0.040) and reducing costs ($\chi2(6)=13.203$, p= 0.040) at 0.05 significance level. The fields in which individuals work also affect their awareness of artificial intelligence. From this point of view, as it is seen in the research, there is a significant relationship between the increase in news applications produced with artificial intelligence, the gathering of information by searching a large number of sources, the refutation of false news and rumours, the impartiality of the news produced and the reduction of costs according to the occupations of the individuals.

Table 3. Analysing the Relationship Between Occupation and Artificial Intelligence Journalism Attitudes

Item				χ^2 , p
The applications of Artificial Intelligence in news production are increasing.				
	Disaggree	Undecided	Agree	
Public employee	18.9%	18.9%	62.2%	
Private sector	34.6%	7.7%	57.7%	$\chi^2(6)=12.942$,
Student	19.0%	10.5%	70.5%	p= 0.044
Other	33.3%	6.7%	60.0%	
Artificial Intelligence can gather information by searching a large number of sources.				
	Disaggree	Undecided	Agree	
Public employee	28.0%	11.8%	60.2%	
Private sector	30.8%	15.4%	53.8%	$\chi^2(6)=18.862$,
Student	13.5%	5.8%	80.8%	p= 0.004
Other	36.4%	6.8%	56.8%	
Artificial Intelligence can refute false news and rumours.				
	Disaggree	Undecided	Agree	
Public employee	43.5%	27.2%	29.3%	

Private sector	50.5%	20.0%	30.0%	$\chi^2(6)=17.979$, p= 0.006
Student	31.4%	46.1%	22.5%	
Other	54.3%	19.6%	26.1%	
News produced with Artificial Intelligence ensures impartiality.				
	Disaggree	Undecided	Agree	
Public employee	43.0%	26.9%	30.1%	
Private sector	47.1%	21.6%	31.4%	$\chi^2(6)=13.214$, p=0.040
Student	23.3%	36.9%	39.8%	
Other	42.9%	23.8%	33.3%	
Yapay Zekâ, haber üretiminde maliyetleri azaltır.				
	Disaggree	Undecided	Agree	
Public employee	26.9%	20.4%	52.7%	
Private sector	32.7%	13.5%	53.8%	$\chi^2(6)=13.203$, p= 0.040
Student	17.0%	20.0%	63.0%	
Other	39.5%	25.6%	34.9%	

Conclusion and Discussion

Artificial intelligence applications in journalism are used in automated news production, content recommendations, reader interaction and many other areas. These technologies provide great benefits to the journalism sector. For example, thanks to automated news production, large media organisations have the capacity to provide continuously updated news content. This provides readers with an up-to-date and comprehensive news experience.

In recent years, there has been an extremely important development in the spread of automated news, the rapid increase in artificial intelligence-supported news production and the ease of consumption of these news by the public. With the increasing use of internet technologies and digital platforms, automated news production has also spread rapidly, enabling news to reach a wider audience more quickly. However, this widespread use of news has also brought some problems. The debates on the quality and ethical use of news content show the risks posed by fast and automated news production. Therefore, the use of accurate information and reliable sources constitutes an important stage of news production. At the same time, the use of artificial intelligence-supported algorithms in accordance with ethical values in this process is also of great importance.

The acceptance of artificial intelligence-supported news by the public shows how people approach such news and to what extent they trust them. Factors such as the accuracy of the news, the impartiality of the language used, and the reliability of the source of the news are effective in determining the public's attitude towards such news. In addition, the impartiality of the content of the news, the effects of the subject of the news on the society, and how people react to such news are among other factors affecting the level of acceptance. Determining the level of acceptance by the public plays an important role in understanding the effects of artificial intelligence-supported journalism on society.

In this study, half of the participants rarely read digital newspapers. However, almost all of the participants not only know what artificial intelligence is, but also know that news is produced with artificial intelligence. In the study carried out by Owsley, Greenwood (2024) with 385 people, it is seen that the awareness of artificial intelligence is low in situations such as reading the artificial intelligence news used in journalism, presentation of the news produced with artificial intelligence. However, the study differs from this study. This is a result of the fact that this study has been carried out in a digital environment and the participants have high access to online newspapers through mobile technologies. In artificial intelligence journalism, weather news is thought to be

produced automatically the most, followed by economic news. The least automatically produced news are earthquake and sports news, respectively. Approximately half of the participants think that all of the economy, earthquake, weather and sports news are produced automatically.

In a part of the study carried out by Demirtaş and Çınar (2024, pp.17-24), the relationship between the demographic characteristics of individuals, occupations and attitudes towards journalism performed with artificial intelligence was examined. In their study, it is seen that journalism students' perspectives towards artificial intelligence journalism are affected by their occupations. In this context, that study in the literature is similar to this study only in terms of the occupation it deals with, but differs from the other points examined.

While the majority of the participants state that they are concerned about the reliability of news produced with artificial intelligence, they think that these news can be of better quality and more qualified and comprehensive than traditional media news. Some of the participants also think that their news needs will be met through news produced by artificial intelligence. It is similar to the study "The Effects of Artificial Intelligence and Robot Technology on Journalism Practices" carried out by Sayar (2021) with the random sampling method by sampling 428 people on the internet. In Sayar's (2021) study, the participants stated that they disagreed with the idea that "robot journalism provides more accurate and reliable news production". This situation is a result of the fact that robots are not sufficiently involved in many areas of daily life and are not sufficiently recognised due to their current image.

Approximately half of the participants think that the use of artificial intelligence in the journalism sector is advantageous. Among the reasons why they think it is advantageous, "fast access to data" has the highest rate. Other reasons were determined as "fast news flow", "evaluating social media interactions", "providing personalised news analyses" and "providing interactive media". In the study carried out by Sayar, the participants also agreed that news production is fast. There are similarities with the study carried out in this regard.

In the study, those who considered the use of artificial intelligence in the journalism sector as disadvantageous expressed reasons such as "not being able to produce news like a journalist", "not being reliable", "causing an increase in unemployment in the sector" and "not being able to access accurate news". In the study carried out by Sayar (2021), the majority of the participants did not find the news produced by artificial intelligence and robot journalism impartial and reliable. It is similar to the study carried out.

It has been determined that those who faced artificial intelligence news when they turned on the news channel felt normal, while some of them felt good. The majority of the participants trust traditional media news more than artificial intelligence news. Participants think that artificial intelligence news will be complementary to traditional news production processes in the future and that artificial intelligence will have an important role. A very small number of participants think that traditional news production processes will play an important role in the future.

When the relationship between gender and attitudes towards artificial intelligence journalism is evaluated, it is determined that there is a significant relationship between the attitudes towards artificial intelligence news being interesting compared to the news obtained by traditional journalism methods, the impartiality of news produced with artificial intelligence and the cost reduction in news production. In the study carried out by Sayar (2021), it was revealed that every opinion has the opportunity to be represented in artificial intelligence and robot journalism according to gender. In other words, it is similar to the study carried out in the context of the impartiality of the news produced.

When the relationship between age and attitudes towards artificial intelligence journalism is evaluated, it is determined that there is a significant relationship between the attitudes towards the speed and diversity of artificial intelligence news, the collection of information from a large number of multiple sources, the objectivity, reality, authoritarianism, refutability and impartiality of artificial intelligence news content. In the study carried out by Sayar (2021), significant differences were found that artificial intelligence and robot journalism have positive effects on journalistic practices and applications, speed, diversity, impartiality, objectivity and more reliable news will be produced. It is similar to this study.

The relationship between education and attitudes towards artificial intelligence journalism shows that there is no difference. In this study, since the majority of the students who voluntarily participated in the online survey were bachelor's degree students, it has been determined that they had similar thoughts and attitudes.

When the relationship between the occupational group and attitudes towards artificial intelligence journalism is evaluated, it is determined that there is a significant relationship between the attitudes towards the increase of news applications produced with artificial intelligence, collecting information by searching a large number of sources, refuting false news and rumours, impartiality and cost reduction of the news produced.

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