

Revolutionizing News: The Future of Journalism in the Digital Age

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Abstract

As we can see that how the technology is developing at a rapid pace in which Artificial Intelligence is playing a crucial part and the field of journalism is no exception at all. In this journal paper, we tried to find out the perceptions regarding the usage of AI in the field of journalism and how it is coping up with the handling of misinformation/fake news, especially during the COVID-19. We tried to find out how fact-checkers are helping us to minimize the spread of fake news. We also found that there is an urgent need for the data protection law with regards to the data privacy of the citizens as well as the freedom of information. People are rapidly moving towards the digital platform for the news feed content especially with the ease of uninterrupted internet connectivity nowadays in India.

Keywords: *Artificial Intelligence, Misinformation/ Fake News, Digital Journalism, Fact-Checkers.*

Introduction

Journalism is considered to be the practice of collecting, evaluating, producing, and presenting information in the form of news to audiences.

Certain recognizable features and behaviors differentiate journalism from other activities and goods. These characteristics not only distinguish journalism from other modes of communication but also make it necessary for democratization. According to history, the more democratic a society is, the more news and information it has.

“The purpose of journalism,” written by Bill Kovach and Tom Rosenstiel in *The Elements of Journalism*, “is not defined by technology, nor by journalists or the techniques they employ.” Rather, “the principles and purpose of journalism are defined by something more basic: the function news plays in the lives of people.” Finally, the ultimate aim of journalism is to provide knowledge to the people that they require to make personal and professional decisions in their lives, community, and society.

Impact of technology in Journalism

Like other fields, journalism is also in the process of going digital with good data methods and algorithms. Due to this penetration of the digital methods, a new field evolved as computational journalism, which applies the technology in the news industry for better news insights. New technologies are being used to complete the process of news making such as the gathering of news, verification of facts, and dissemination of the final news. The NY Times for example is having an innovative cloud computing-enabled journalism tool named Document Cloud to facilitate the processing and publishing of the information that is raw (Appelgren & Nygren, 2014). Similarly, Quill, a tongue Generation platform, generating machine-written reports is another development in the field of computational journalism. This rise of digitization in journalism is benefitting the industry in saving market coordination costs and increasing the scope of the activities (Sundararajan, 2015). One of the best examples of digitized journalism is WikiLeaks, which is dedicated to protect and expose controversial documents worldwide (Morozov, 2011).

As Benkler (2006) puts it “the networked economy provides varied alternative platforms for communication so that it moderates the facility of traditional mass-media model”. The big news agencies understand the emerging trend in the latest media and hence they are incorporating new technologies into their system as well as enhancing their trade values and network. Platforms are being provided to citizen journalism and bloggers to collect information on the stories published (Bruns, 2008). From the audience's point of view, such news applications are good projects of journalism with computational background (Stavelin, 2013).

Review of Literature

In the report of Hansen et al. (2017), it was found out how Artificial Intelligence has become a default toolkit these days in the newsroom nowadays. It is helping in revolutionizing journalism in the 21st century. Their findings also insist on the fact that how AI is helping the journalists to bring out new stories and news coverage that was previously out of reach technically. The ethical use and disclosure of the data in which

how the information is stored, collected, analyzed, etc. have become a fundamental matter that journalists need to face now at moment. Last but not the least, one thing that intrigued us while going through this report that AI can augment the process of human data journalists grips a great future, but open access to data remains a key challenge.

Monti (2019) in their study strives on the fact that how journalism and the press have been influenced by the technological changes and so on. This paper analyses the ethical and juridical problems of automated journalism by emphasizing the liability and responsibility with regards to the freedom of information. This paper particularly focuses more on the Italian legal system which has a more constructive approach to develop the idea of freedom of information.

Napoli (2020) gives us important feedback that why it is a crucial time for the scholars to explores the policy issues in the field of data journalism, as well as the reasons or causes in some national contexts such as the case of Facebook, Twitter, or YouTube in dealing with the misinformation during the COVID-19.

Estella (2020) mentioned the fact that how the COVID-19 crisis across the globe has posed a tremendous challenge to journalism, not as a profession but as a discipline. It covers the subject of journalistic features necessary in such testing times. It also favors that, how consensus growing among experts, journalism can be best strengthen its duties by shifting its standards and protocol under a transformative and interdisciplinary approach, which has been impacted for a long time by the inertia of the industry and industry-centered journalism academics.

Faulkenbury (2020) in their study discusses the importance of oral historians and journalists in gathering information and disseminating the story on it. Due to the COVID-19 outbreak in 2020, it was observed that journalists turned to oral historians to collect, document, and share stories of the people surviving the coronavirus pandemic. There are many similarities between journalism and oral history but the COVID-19 pandemic reveals that journalism leads oral historians in making relevant stories and spreading them to the masses in very little time. But the journalists do lack the fine attention to details and archival methods like the oral historians do.

Luengo and García-Marín (2020) in their study stated that WHO reported that the COVID-19 pandemic has led to a “massive infodemic” across the world. Misinformation was being struggled worldwide. The world’s fact-checking agencies were continuously responding to the claims and false information spread regarding

the pandemic. The study attempted to assume fact-checking as an “interpretative power” that a journalist holds while performing their political duties.

Nguyen and Nguyen (2020) in their study discussed the negative effect of the misinformation on coronavirus pandemic over social media among the Vietnamese people.

Nielsen and Graves (2017) in their report attempted to understand the perspectives of the audiences on fake news over online channels. The people who come across this false news over social media think of it as poor journalism and political propaganda etc.

Carlson (2018) introduces the term measurable journalism that exposes the audiences’ consumption patterns on digital platforms and discusses the social implications of measurable journalism.

Nielsen and Sen (2016) in their study reported about the emerging digital Indian media environment. The study finds that the new start-ups and entrepreneurs are working on developing different types of journalism models to elevate the standard and reach of Indian journalism in the new digital era.

Research Design

The research starts with ‘descriptive and empirical’ as it puts light on the use of Artificial Intelligence and the latest technologies in the field of Journalism. Subsequently it ‘explores’ a new dimension that comprises parameters. Furthermore, we analyze the impact of those factors on the use of AI in the new digital age using various statistical tools. Hence, this is a descriptive explorative, and analytical study which brings a new dimension to the ever-changing and challenging field of journalism. The duration of the study is 30 days and sample frame include people of different age and from different backgrounds who are very much following NEWS.

Need for the Study & Statement of the Problem

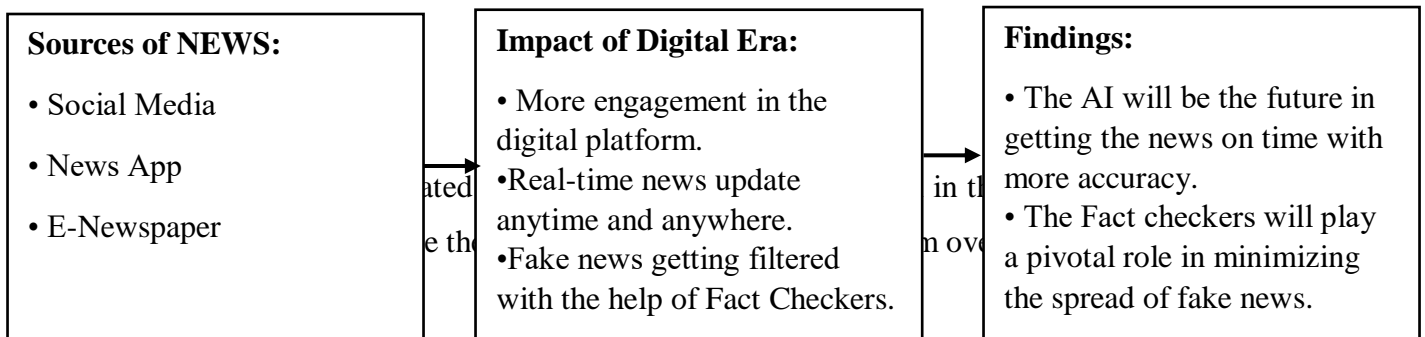
This research paper mainly focuses on the implications of Artificial Intelligence (AI) in the field of journalism and how it would help us in getting the exact news coverage and feeds to reach nooks and corners of a country with the help of adequate internet availability. It is also very crucial for us to take the perception from the respondents with regards to the fact-checking of the misinformation/fake news which was quite a brutal infodemic during the peak of the COVID-19 pandemic last year and so on. We also tried to track down the need for the data privacy laws & regulations which could indeed help us in the protection of the freedom of information which is one of the key components of any democracy of a country.

Objectives of the Study

- To study the use of AI (Artificial Intelligence) in the field of Digital Journalism nowadays.
- To find out how the spread of misinformation/fake news impacted the journalisms' ethics & practices.

Model

There has been a great change of approach in following the news nowadays, from newspaper to social media feed with the advancement of science & technology, and most importantly the availability of cheap internet connection in the remote areas. The intervention of AI: It is a well-known fact that the use of AI and further Blockchain, will play a crucial role in getting the news with their programmed algorithm and most importantly in reducing the spread of misinformation/fake news. The impact of the usage of AI in getting the actual news feed to the audience. The role of Fact Checkers will become crucial in minimizing the viral spread of Fake News. How the usage of AI can still maintain the ethics of Journalism without any biases.



From the above objectives, the following hypothesis can be drawn:

Hypothesis 1:

H₀(1): the use of AI is going to allow use getting NEWS from a wide area that can be more genuine.

Hypothesis 2:

H₀(2): the use of Fact Checker is going to allow us in verifying the authenticity of NEWS which are found to be biased.

Scope of the Study

1. Respondent's scope – which comprises data from the randomly selected respondents who are actively reading news from one of the sources available i.e., Mobile App, Television, E-Newspaper, etc.
2. Regional scope –the study is conducted among various people who are part of India and picked randomly.
3. Research scope – this study carried within the limits of the said objectives viz., the implication of AI in journalism and fact-checker.

Sources of Data

The primary data is collected from a structured questionnaire using a 5-point Likert scale from respondents.

Sampling Design

A set of 90 respondents randomly selected, administered with the structured instrument, obtained valid 77 responses from a pool of intermediaries across India.

Data so collected are analyzed using descriptive statistics technique i.e., Chi-Square Test. As Chi-Square Test is used to determine whether there is a statistically significant difference between the expected frequencies and the observed frequencies in one or more categories of a contingency table. The purpose of the test is to evaluate how likely the observed frequencies would be assuming the null hypothesis is true. In this regard, we have utilized the tools such as MS Excel, SPSS.

Analysis and Interpretation

The Relevance of AI:

Based on 77 responses received 66 respondents think that the use of AI will allow us in getting news by the use of their algorithms and will also help in decreasing the spread of misinformation. With that 63 respondents also think that the use of AI will get the freedom of information as the AI will bring the real information to the Infront of everyone. But 65 respondents also said that the government has to bring some changes in data privacy rules with the use of AI in journalism

The Fact Checker:

Based on 77 responses received 59 respondents think that journalists are not doing anything to stop the spread of misinformation which allows us to implement the use of Fact Checker. Also, 74 respondents think that during the pandemic there was more spread of misinformation. With that 59 respondents also think that we have to implement the use of Fact Checker beyond social media network.

Demographic Factors:

Factor		Number of Respondents	Percentage %
	Male	44	57.1
	Female	33	42.9
	Below 20	2	2.6
	20-25	36	46.8
	26-30	31	40.3
	Above 30	8	10.4
	Urban	54	70.1
	Rural	5	6.5
	Metropolitan	18	23.4
	Matriculation	1	1.3
	Intermediate	0	0
	Graduation	7	9.1
	Postgraduation	30	39
	Employed	35	45.5
	Other	4	5.2
	App	28	36.4
	TV Channel	10	13
	E-Newspaper	16	20.8
	Social Media	16	20.8
	Physical Newspaper	7	9.1

The table above helps understand the demographic factors that influence the use of AI and Fact Checker in Journalism.

Male respondents constitute 57.1% of the respondents and female respondents constitute 42.9%. Both respondents were an adult male and female NEWS readers, consisting of 44 male (57.1%) and 33 female (42.9%) readers. It is interpreted that male respondents read NEWS more often than females.

The table shows that 2.6% of the respondents are below the age of 20 years, 46.8% of the respondents are between the age of 20 to 25 years, 40.3% of respondents are aged between 26 to 30 years and 10.4% of the respondents are aged 30 years and above. It is interpreted that respondents from the age group of 20 to 25 & 26-30 read NEWS more often be it any medium than other category respondents.

The majority of the respondents (70.1%) belong to urban areas and a meager (23.4%) percent belong to metropolitan areas. It is interpreted that the majority of respondents who are reading NEWS are from urban and metropolitan areas.

The major chunk of the respondents (45.5%) are employees, post-graduate degree (39%), graduate degrees (9.1%), least 1.3% matriculation as their minimum qualification. Hence, it is interpreted that the respondents overall were well educated.

The majority of respondents (36.4%) use apps, (20.8%) use social media, (20.8%) use e-newspaper, (13%) use TV channels, and only (9.1%) are using physical newspaper. Hence, it can be interpreted that a large percentage of respondents are using digital platforms to follow up NEWS.

Hypothesis 1

H₀: use of AI is not going to help us in getting NEWS from a wider range of areas and which can be more genuine.

H₁: use of AI will help us in getting NEWS from a wider range of areas and which can be more genuine.

Talking about the analysis of the first dependent variable AI. For this, we have performed Chi-Square. As per the result of hypothesis testing based on the critical value approach we can see in the below-given table that the critical value is less than Pearson Chi-Square Value i.e., $9.49 < 27.748$. From this test, we can say that we can reject the null (H_0) hypothesis. In conclusion of this test, we can say that the use of AI in journalism for genuine news, freedom of news, and data privacy is going to help us as per the responses given by our respondents.

Factor	Critical Value	Chi-Squared Value
The use of AI will help us getting authentic news.	9.49	27.748

Hypothesis 2

H₀: use of Fact Checker is not going to help us in getting authentic and unbiased news.

H₁: use of a Fact Checker will help us in getting authentic and unbiased news.

Talking about the analysis of the second variable Fact-Checker. For this, we have performed Chi-Square. As per the result of hypothesis testing based on the critical value approach we can see in the below-given table that the critical value is less than Pearson Chi-Square Value i.e., $9.49 < 12.155$. From this test, we can say that we can reject the null (H_0) hypothesis. In conclusion of this test, we can say that the use of Fact-Checker in

journalism for genuine news and authentic NEWS is going to help us as per the responses given by our respondents.

Factor	Critical Value	Chi-Squared Value
Use of Fact-Checker will allow us to get genuine NEWS	9.49	12.155

Discussion

Our results support the findings one of the reports given in the review of literature that the AI will prosper in the coming days and can augment and help the journalist to bring out new stories and news coverage that was previously out of reach due to the technological or logistical constraint. In another finding from our analysis with regards to the journal article mentioned in the review of literature that supports the thesis regarding the data policy and regulations for the big tech companies such as Twitter, Facebook, YouTube, etc. in dealing with the misinformation during the COVID-19. The most important analysis with regards to the questionnaire that the usage of AI will be able to not only bring the latest news but also uphold the freedom of information and the sanctity of journalism.

Last but not the least, our finding from the analysis agrees with the thesis of the journal article “Confronting Measurable Journalism” by Matt Carlson (2018), that how cultural and material movement to digital platforms having the potential of providing real-time and quantitative data about public consumption behaviours. This approach both notify future research and helps to identify the social implications of measurable journalism.

Limitations of the Study

This study is covering the set of small sections of randomly selected respondents, certainly may not cover the entire perception towards all persons who are directly involved in the channel of distribution. Indeed, there is a limitation of variables so, selected due to constraints.

Conclusion and Direction for Further Research

From the analysis, findings, and results, we found that the future of journalism is very exciting and intriguing in the digital age of Artificial Intelligence. It can not only bring out news contents or coverage but also maintain the sanctity of core journalism. Our objectives with regards to this research paper are well fulfilled as per the responses that we got, as well as the demographic and descriptive analysis that we did. The only suggestion for the future scope of the research is that we could see the huge impact of blockchain technology in eradicating fake news content with the help of 5G or IoT (Internet of Things).

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