



Journalism and Editorial Use of Artificial Intelligence

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ABSTRACT

Due to advancements in artificial intelligence and language-based software, robots that can produce news material from data are beginning to be used in editorial practice. Despite the fact that this sector of editorial work is in its infancy, it has been rapidly evolving and improving. Currently, robots for content generation are installed in the editorial offices of major media outlets. These robots are able to handle vast volumes of data while saving writers' time. Robo-journalism, which is the consequence of a successful connectivity of informatics, statistics, and reporting, is being vigorously explored in both media practice and professional circles. This research examines robot journalism, which involves the production of news items using intelligent software. Its implementation substantially redefines editorial routines, journalistic methods, and current editorial work paradigms. Media and journalism theorists are curious in the impact of robo-journalism on the editing process, the journalistic profession, the journalist as a creative individual, and their skills. The purpose of this study is to raise awareness of this constantly emerging section of new coverage and to highlight certain characteristics of it in connection to media practice and theoretical thought.

KEYWORDS: *artificial intelligence, author, editorial office, journalist, robo-journalism*

INTRODUCTION

Although the implementation of innovations as a tool of technical, social, and economic growth in many fields of practice is not always received with favorable response and comprehension, the media sector is a place where changes are absorbed reasonably fast. Thus, media institutions are becoming pioneers in the application of technical and

technological breakthroughs, assisting in their adaptation to society on the one hand, and using current accomplishments to enhance them on the other. Recently, podcasts, virtual reality, 360-degree films, and chat bots have developed in international news media practice. For instance, since drones have become a technique of gathering news information, artificial intelligence has started to be used in the creation of news content. Journalism has reached mobile devices, social networks, and popular user channels (YouTube, etc.) [1]. On all of these platforms, there is a competition for the recipient's attention, which raises the need for the media industry to develop new (and entrepreneurial) techniques. In this situation A. Sámelová highlighted the technologization of the mass media environment, which led to the visualizations of words, sounds, and pictures in contemporary journalism [2].

In the article, the writers explore robo-journalism, which is the use of autonomous machinery, artificial intelligence, and specialized software to generate news material using natural language. The objective is to enhance awareness of this rapidly expanding sector of the newspaper industry, which is conducted through the Internet, mobile technology, and social networks.

DEFINATION ROBO-JOURNALISM

Despite the fact that the first data-generated software was established more than 40 years ago, it is presently being debated in terms of its use in journalistic practice [3]. This is primarily owing to the successful connectivity between informatics, statistics, and the newspaper industry. In 2014, the American Associated Press revealed that more than 3,000 of its news articles were produced by "robots" They contained particularly breaking sports news. While

intelligent software was formerly used for weather forecasting, medical data processing, and financial reporting, it now generates writings that are indistinguishable from those written by journalists. During the Swiss elections in November 2018, Tobi software generated more than 40 thousand reports in German and French [4]. The BBC anticipates generating ninety percent of news texts generated by intelligent software by 2022 [5].

Robo-journalism has introduced novel journalistic processes to the creation of newspaper outputs, which has a substantial effect on human resources and the journalistic profession as a whole. In addition, it affords reporters the flexibility, space, and time to focus on surveying and seeking connections. The program creates texts, animations, and information visualizations from vast volumes of data using algorithms.

Quill, developed by the American firm Narrative Science, is one of the most well-known robo-journalism programs. It examines data before generating texts. The business now has 19 data-related software patents [6]. The British business ARRIA has developed Natural Language Generation (NLG) technology, which enables the synthesis of texts from "raw" data in such a manner that news articles seem to have been produced by an expert. NLG is an intelligent automation platform that converts data into a human-comprehensible language.

However, there are restrictions to the use of "robots" in text production. Intelligent software may be used, for instance, in the generation of sports news, financial and economic reports, where enormous quantities of numerical data must be analyzed, but it is incapable of discovering deeper relationships between events and phenomena or drawing broad generalizations. Their creation is relatively expensive and time-consuming, thus only big media companies and news agencies can afford to acquire such software.

INTELLIGENT SOFTWARE FOR CONTENT CREATION AND ITS USE IN EDITORIAL PRACTICE

Journalists may save time by using "robots" in situations when huge volumes of data must be processed (sports, economics, statistics, etc.). Their next benefit is that they operate quickly and accurately. This enables journalists to concentrate on analyzing or commenting on events that need the study of specific materials. They will also find

affirmation in the hundreds of daily pieces produced by news outlets.

Numerous media corporations and news organizations are experimenting with the use of artificial intelligence to analyze data and generate brief reports. The editors of the German publications Bild and Die Welt use automated journalism, particularly in the development of sports news. The General Director of Axel Springer, Mathias Doepfer, said that the rise of robo-journalism and texts created by artificial intelligence do not constitute a danger to contemporary journalists. According to him, the journalistic age will be marked by an increase in labor efficiency and the emergence of new occupations [7].

In the British Press Association, one of the major distributors of multimedia information and services in the United Kingdom, a group of journalists and software engineers are tasked with experimenting with and developing robo-journalism. For instance, researchers want to determine whether journalists can differentiate between a piece generated by artificial intelligence and one authored by a reporter. According to P., the film's director The material generated by artificial intelligence appears not only on the Internet but also in the print media, Clifton. Although he acknowledges the danger of making mistakes, he believes that robo-journalism bolsters the journalistic profession since it enables the rapid gathering and analysis of enormous amounts of data. For example, The Los Angeles Times reported an earthquake with a magnitude of 6.8 in 2014, although it was really a record from 1925. Press Association generates over 30,000 monthly reports using clever software [8]. They are also used by the Reuters news agency and The New York Times.

Nonetheless, not only software businesses and media companies monitor the growth of this sector of the newspaper industry. The Tow Centre for Digital Media was established in 2010 at the American Columbia Journalism School to offer journalists with knowledge and skills in the area of digital journalism while also operating as a research and development center. This center does research in the field of robo-journalism [9].

In terms of Central Europe, the Czech News Agency (TK) has been a pioneer in the use of automated reporting devices since the processing of municipal elections conducted in the Czech Republic for the first time in October 2018. The software's purpose was to assist editors and reporters in transcribing data from

the Czech Statistical Office, so that when the Office released election results, the automated machine would place them in a pre-formatted template and send them to the editing staff for evaluation. The objective of this approach was to remove human error and make journalists' jobs easier. Apparently, J. Kodera, which according to the technical director of TK, the evolution of artificial intelligence algorithms will inevitably result in messages that cannot be distinguished from handwritten ones. We even think that in the future, machine-generated texts may be superior. In actuality, a computer can manage far bigger databases. Another concern is the selection of themes and their classification. In this regard, machine-based processing may be of great assistance, but the function of the human will remain irreplaceable [10].

Regarding the influence of the editors' work and their qualifications, J. Kodera makes a distinction between the many applications of automated machines: In the event of the implementation of templates, they are created by more or less professionally trained editors who also coordinate with IT personnel. Nonetheless, if a specialized algorithm is used (for instance, to generate reports from sporting events), then the majority of human labor will be devoted to its creation and preparation. In the case of our election pilot project, our editorial department created many versions of report templates and code lists, which comprised political themes, municipalities, and other data. The data processing was administered by IT personnel, and the resulting content is then subjected to conventional editing processes, just like any other news article. [11].

The deployment of artificial intelligence in the generation of news reports inevitably raises questions about the author as such. Journalism is a creative endeavor, and its products are the product of human intellectual creativity. A. Both Tuer and Z. The author, according to Kresák Kamenská, is the creator of a journalistic, literary, scientific, or creative work. The product is their creative labor, which is protected by intellectual property rights. They also underline that writers are regarded differently in media products, based on the nature of the medium, stylistic and genre considerations, or their perspective on the issue being portrayed. Consequently, we may discuss an editor, correspondent, publicist, blogger, etc. [12]

According to Section 13 of the Copyright Law, an author is a natural person who created a work, whose name and surname appear on the composition, or a

person who, after the expiration of property rights, publishes a previously unpublished work and, by doing so, exercises property rights over the work [13].

According to these definitions, the author is the originator of the work, regardless of its nature. However, they also highlight the creative potential of the composition's inception, i.e. taking the necessary steps to generate the work. Naturally, conversations about software-generated communications raise the issue of their authorship and the amount of their creative potential. Several detractors, for instance, believe that media made by robots would lack "humanity," and they are concerned about the possible manipulation of media by sophisticated computer programs. This problem has far larger implications, for example, in light of the emergence of citizen-amateur journalism with the advent of the Internet and mobile devices. All of a sudden, anybody who can write, photograph, or film is an editor, reporter, scriptwriter, director, camera operator, or photographer. However, there is still no conclusive solution to the issue of who may be deemed a citizen or an amateur journalist.

NEW NEWS FORMS: VR AND 360-DEGREE VIDEOS

Several news outlets, including The New York Times, The Huffington Post, and The Guardian, have begun producing 360-degree videos (also known as immersive or spherical video) in order to capitalize on the popularity of social and mobile media more effectively. The age of virtual reality and immersive films represents the shift from information to narratives. The audience enters a "journalistic story"-representative virtual environment. To participate in these novel formats, however, journalists must know production, film style, video editing, and video graphics. When people will be willing to pay for these types of reports and if marketers would support this kind of processing remain unknown.

Reuters conducted a research on the use of virtual reality in news reporting and internet journalism. They concluded, based on the survey findings, that the majority of news organizations promote 360-degree videos. Some editors believe that spherical video is a superior and less expensive option to virtual reality [14]. According to journalists, it is too early to gauge the audience's opinions, since people have a limited grasp of virtual reality and have only just begun to investigate this field. According to them, the audience's experience in this subject is insufficient. In contrast, 360-degree cameras and their virtual

analogues enable the user to be passively editorial. They may incorporate presenters into the camera or in other ways, such as through text overlay, sound, or motion. On the one hand, cameras with a 360-degree interface might annoy the viewer, but on the other, they bring up a vast array of opportunities. This form of innovation focuses on both the event and the inside, more intimate experience. At times, for instance, we might see things from multiple perspectives of the creator.

The application of these technologies into editorial practice is not only time-consuming and expensive for the media, but also for the audience, which may restrict the availability of such reports. Virtual reality and immersive films will not replace television, the press, or the radio, but they will provide new chances and difficulties for the future growth of these media. The media and journalists should be aware that these methods facilitate increased competition and the capacity to attract people. Likewise, it is a problem for journalists, who must begin integrating social networks to develop new methods and chances.

CONCLUSION

Despite cautious responses, the use of autonomous machines and intelligent software for news content generation is one of the fastest-growing industries. Implementing it takes significant financial resources. The use of "robots" in journalism may increase content speed, accuracy and error-free data. However, J. Kodera said robo-journalism is not a technological boom or revolution, but one of the natural directions of newspaper world development. For years, we've automatically created event lists, published updated graphical visualizations, and last year we prepared election results reports to speed up the reporting of the election returns. Other world news agencies or media are working on similar projects. Colleagues share their knowledge [15]. Media house managements confront new obstacles, and a successful rollout of robots may push them to rethink their employment policies. Journalists must also learn to utilize robots effectively.

REFERENCES

1. Višňovský, J., Radošinská, J., Online Journalism: Current Trends and Challenges, the Evolution of Media Communication, Croatia, 2017, pp. 3-22.
2. Sámelová, A., Odovzdať a vstrebať: neutrálna pravda masových médií, Médiá – moc – manipulácia, Slovak Republic, 2016, pp. 316-330.

3. Lemelshtrich, L., N., Robot Journalism. Can Human Journalism Survive? Singapur, 2018, pp. 106.
4. Ren, Y., Robo-journalists that write up 'monotonous' articles from election to sports results are becoming more popular in newsrooms - but will they ever replace traditional reporters? Available at: <https://www.dailymail.co.uk/sciencetech/article-6791173/Robo-journalism-gains-traction-shifting-media-landscape.html>
5. Spencer, M. K., The Future of News is Automated – Robots taking over Journalism. Available at: https://medium.com/@Michael_Spencer/the-future-of-news-is-automated-robots-taking-over-journalism-164244b24f02
6. Narrative Science. Available at: <https://narrativescience.com/about-us/>
7. Thomasson, E., Robo-journalism no threat to journalist jobs, says Axel Springer CEO. Available at: <https://www.reuters.com/article/us-axel-sprngr-media/robo-journalism-no-threat-to-journalist-jobs-says-axel-springer-ceo-idUSKCN1J21K8>
8. Baraniuk, Ch., Would you care if this feature had been written by a robot? Available at: <https://www.bbc.com/news/business-42858174>
9. About The Tow Center. Available at: <https://towcenter.columbia.edu/content/about-tow-center>
10. E-mail communication with Jan Kodera, technical director of Czech News Agency (ČTK) , 28th March 2019.
11. E-mail communication with Jan Kodera, technical director of Czech News Agency (ČTK) , 28th March 2019.
12. Tušer, A., Kresák Kamenská, Z., Médiá & právo. Rukoväť k masovým médiám a verejnému právu v SR a ČR, Slovak Republic, 2014, pp. 23.
13. Copyright Law 185/2015. Available at: https://www.dusevnevlastnictvo.gov.sk/documents/10181/0/Autorsky+zakon_ucinn+y+od+1_1_2019.pdf/efa80dd6-7982-4059-bdbf-7d60fbddc94c
14. Greguš, Ľ., Mináriková, J., News Values in Slovak Television News, Communication Today, Slovak Republic, vol. 7/issue 2, pp. 78-89, 2016.
15. E-mail communication with Jan Kodera, technical director of Czech News Agency (ČTK) , 28th March 2019