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MATILDA KOLIĆ STANIĆ
BRANIMIR STANIĆ

HOW TO ETHICALLY USE ARTIFICIAL INTELLIGENCE IN THE INSTITUTIONAL COMMUNICATION OF THE CATHOLIC CHURCH?

A b s t r a c t. The aim of this paper is to examine whether the ethical principles of public relations – which derive from the theory of information and communication of prominent media ethicist Luka Brajnović – can be applied to the use of artificial intelligence in Church institutional communication. Brajnović's principles of truthfulness, transparency, integrity, competence, loyalty and social responsibility partly coincide with the ethical principles of the "Rome call for AI Ethics" and could be sufficiently universal and applicable to the use of artificial intelligence in the institutional communication of the Catholic Church.

Keywords: artificial intelligence; communication; ethics; information; public relations

INTRODUCTION

Is it even possible that the Church's institutional communication does not use artificial intelligence in an ethical way? In an ideal world, the answer to the question would certainly be no. Nevertheless, Catholic Church – including its institutions – in accordance with the teachings of the Second Vatican Council, lives and acts in the world. Even today, the Church "raises anxious questions about the current trend of the world, about the place and role of man in the universe,

Prof. MATILDA KOLIĆ STANIĆ, PhD in Social Communication – Department of Social Sciences and Humanities, University of Slavonski Brod; correspondence address: Gundulićeva 20, 35000 Slavonski Brod, Croatia; e-mail: mkolicstanic@unisb.hr; ORCID: https://orcid.org/0000-0001-8295-3777.

BRANIMIR STANIĆ – PhD student at Paris Lodron University of Salzburg; correspondence address: Kapitelgasse 4-65020 Salzburg, Austria; e-mail: branimir.stanic@gmail.com; ORCID: https://orcid.org/0009-0003-6956-121X.

about the meaning of its individual and collective strivings, and about the ultimate destiny of reality and of humanity" (*Gaudium et Spes*, 3). That world is immersed, according to Manuel Castells, in the fourth industrial revolution, which is based on information and communication technologies (Castells, 2000, p. 37; Pejić Bach et al., 2019A; Zerfass et al., 2019, p. 61). No one, including Church institutional communication, can run away from the fact that technologies, using computers, connect the world in global networks and create virtual communities (Castells, 2000, p. 56).

One of the five features of the new paradigm brought about by this revolution (Castells, 2000, p. 93-96) is the convergence of specific technologies into a highly connected system, whereby the individual technologies that make up the system are almost no longer distinguishable. This contributed to the technological convergence of the biological and microelectronic revolutions. Castells, in fact, explains that research into neural networks and biological logic served to develop electronic machines, the boundaries of which are constantly shifting (Castells, 2000, p. 95-96). Therefore, artificial intelligence is becoming an integral part of the new information and communication technology (Polak, Kolić Stanić, and Togonal, 2022). Constant and accelerated development in that area, such as ChatGPT, indicate a "fundamental change of communication practices through digital technologies" (Zerfass et al., 2023). Accelerating the implantation process of the fourth industrial revolution certainly contributed to the flew on information during the global pandemic (Sobrosa Neto et al., 2020). This new revolutionary era affects institutional communication professionals in a special way, because they are facing great opportunities and risks at the same time. That is very well described in the next observation: "CommTech, big data, and services based on artificial intelligence can enhance the efficiency and effectiveness of organisational communication, but they also threaten current business models of communication departments and agencies. Concise transformation strategies adapted to the situation and courageous leadership are necessary to move forward" (Zerfass et al., 2023).

Institutional communication according to La Porte (2009) is the organized communication of an institution aimed at persons or groups of persons who are part of the society in which that institution operates. La Porte argues that the goal of institutional communication is to create quality relations between the institution and its public, thus gaining social visibility and image in accordance with its own values. Furthermore, he explains that marketing, advertising and public relations are integral parts of institutional communication (La Porte, 2009). Institutional communication also includes other types of relationships that the

institution maintains in the society in which it operates. The concept of institutional communication described by La Porte goes beyond the usual divisions between public relations, advertising and marketing, although without going into the hierarchical relationships between the above three activities. He points out that it is generally accepted that they should be coordinated with one another so that the institution can communicate as one so that they could convey the identity of an institution and the values on which it is based. Institutional communication is always dialogical since it creates relationships with members of the society in which it operates, contributing to the common good thanks to its specific goals. Also, communication is inseparable from the values on which an institution is based, therefore the content of communication should be in accordance with its identity. By the way it communicates, the institution shows its responsibility for the society in which it operates. Good institutional communication establishes harmony between its real identity, the image it wants to convey and the public's perception.

This concept of institutional communication can apply to corporations as well as to non-profit organizations and also to the Catholic Church, since the Church is not only a spiritual reality but also has a human dimension, similar to other institutions (La Porte, 2009). The importance between the Catholic Church and institutional communication, with the positive evaluating of new technologies, is the subject of many scholars (Leśniczak, 2019; González Gaitano, 2017; Arasa, 2018; La Porte, 2009).

Since the European Communication Monitor showed that only 3.3% of communication professionals use assistants or artificial intelligence devices in the office such as Siri or Amazon Echo with Alexa (Zerfass et al., 2019, p. 61), perhaps we can raise a doubt about certain resistance or unpreparedness for the application of AI with communication practitioners in Europe. Also, the same survey in 2020 showed that communication experts in Europe are most concerned about the use of AI when it comes to ethical issues in the field of social networks. European practitioners see using socialbots to generate feedback and followers on social media (67.6%) and exploiting audiences' personal data by applying big data analyses (58.1%) as the greatest ethical challenges (ECM, 2020). Also, contrary to expectations, younger communication practitioners fear more risks linked to AI than their older colleagues (Zerfass et al., 2020).

According to Zerfass et al. (2020) artificial intelligence (AI) is defined "as software-driven agents capable of flexible decision-making processes and actions, may take over routine tasks like content creation or adaptation, allowing communication practitioners to spend their work time on creative and strategic tasks." This paper seeks to provide an overview of the research so far on the

application of artificial intelligence in institutional communication, that is, on the tasks that communication practitioners have entrusted to AI, and on the ethical issues mentioned in the literature related to the application of AI in communication. Research of key publics, influencer marketing, crisis communication and media relations are some of the areas of application of artificial intelligence in institutional communication (Maldonado, 2020; Kolić Stanić and Pejić Bach, 2023; Kolić Stanić, Pejić Bach, and Dabo, 2023). Some of the ethical issues mentioned in the literature related to the application of AI in communication are: endangering the right to privacy, loss of trust and dehumanization of communication (Kolić Stanić and Pejić Bach, 2023; Kolić Stanić, Pejić Bach, and Dabo, 2023). The Rome call for AI Ethics, supported by the Pontifical Academy for Life, will also be presented. After that, six principles for public relations (Kolić Stanić, 2020) will be reviewed and an attempt will be made to apply them to the field of artificial intelligence in institutional communication.

1. WHAT IS ARTIFICIAL INTELLIGENCE?

1.1 Definition

Although there is no unified definition of artificial intelligence (Gasser and Schmitt, 2020, p. 142; Boddington, 2017, p. 1), the terms "intelligence" and "artificial" should first be defined. Intelligence is thus the ability to learn and apply knowledge or solve complex problems (Donath, 2020, p. 54), while the term "artificial" indicates that it is designed by human intention, not directly by evolution, which also includes human responsibility (Bryson, 2020, p. 15). Artificial intelligence is the ability of a digital computer or computer-controlled robot to perform tasks normally associated with intelligent beings (Copeland, 2022). Artificial intelligence is therefore also related to machine learning and algorithms.

1.2 Big data

Big data is digital data that we produce with every click, post, email, purchase and almost every interaction on any digital platform" (Maldonado and Ardila, 2020, p. 25). These data can be stored and processed by computers and it is (almost) impossible for humans to extract valuable information without the help of machine or deep learning. Namely, big data implies a large volume of structured and unstructured data from different sources in real time (according to Pejić Bach et al., 2020, p. 16; Maldonado and Ardila, 2020, p. 26). It is therefore not surprising that such data collection is also called data mining (Pejić Bach, Celjo,

and Zoroja, 2016; Pejić Bach et al., 2019b), a term that indicates that data is the ore of our new digital age (Rizk, 2020, p. 635; quoted in Zerfass et al., 2016, p. 17).

Artificial intelligence algorithms can collect this data from the web, social networks, mobile applications, different types of records and databases, geospatial data, surveys and scanned traditional documents. The analysis of big data with regard to the source can be divided into three key categories: a) smart devices, b) geolocation on mobile devices, c) social networks (Pejić Bach et al., 2020, p. 3).

1.3 Algorithms

Algorithms engage machines to independently perform various complex tasks, including collecting and analysing a very large amount of data on the basis of which they create various forecasts (Boddington, 2017, p. 2). Artificial intelligence systems are based on algorithms created using machine learning (Maldonado, 2020, p. 12). Meta, Amazon, Apple, Google, Microsoft invest large funds in the development of these new technologies, whose services with deep learning algorithms people use every day such as Google search, Facebook News Feed, Apple Siri, Amazon Alexa, etc. (Maldonado, 2020, p. 30, 55, 41, 72-74; Slee, 2020, p. 108).

2. OVERVIEW OF THE USE OF AI IN INSTITUTIONAL COMMUNICATION

Scientific research and theoretical approaches dealing with the issues on the application of artificial intelligence in institutional communication are still not extensive. Manuelita Maldonado (2020) contributed to this discussion. Maldonado points out that artificial intelligence enters almost all professions, including public relations. Therefore, artificial intelligence is also used in sectors that are not directly related to communication, such as medicine. Onwards, it is expected that artificial intelligence will be used more and more in professions that directly deal with communication (Maldonado, 2020, p. iv). If institutional communication deals with communication between people who now communicate globally and daily using technologies that include artificial intelligence, then this indicates that artificial intelligence is becoming an integral part of institutional communication, which begs ethical questions.

2.1 AI and key audience research

By collecting large data of key publics on social networks and processing them with AI, it is possible to obtain information about their individual behaviour, preferences and interests (Mattern, 2020, p. 258). Maldonado (2020) believes that such an application of artificial intelligence helps in the analysis of public opinion and reputation, and it is possible to segment the public of an organization with greater accuracy (Freberg, 2022, p. 271). At the same time, accuracy is still the biggest challenge due to the complexity of human feelings, grammatical nuances, linguistic figures such as sarcasm or non-verbal gestures in different cultures, etc. (Maldonado Ardila, 2020, p. 31). According to Smith, it is mostly possible to achieve 50% accuracy in such analyses, although some algorithms achieve up to 80% accuracy, such as for example Zignal's sentiment analysis service (cited according to Maldonado Ardila, 2020, p. 31-32). Maldonado Ardila (2020) notes that it is good to combine sentiment analysis with other qualitative analysis such as word clouds (Pejić Bach et al., 2019a) or topic clusters (Pejić Bach et al., 2019b) to achieve greater accuracy of the information obtained.

Big data enables predictions of future trends based on the analysis of current ones (Wiesenberg, Zerfass, and Moreno, 2017). Netflix, for example, collects data on the behaviour of its viewers and their preferences in order to predict the content they will like in the future (Maldonado Ardila, 2020, p. 25). For example, Instagram works similarly: it collects data about its users' likes, comments, shares and views in order to understand what they like and what they don't, in order to create personalized feeds based on this. The ultimate goal of a personalized experience is to keep the user on the platform as long as possible (Maldonado Ardila, 2020).

2.2 AI and crisis management

AI tools that use sentiment analysis and analyze text or process natural language can determine whether published digital content is positive, negative or neutral for an organization. In this way, artificial intelligence enables the monitoring of digital platforms, blogs and media portals and can warn in time of negative signals that quickly escalate in the virtual world and turn into digital storms (Maldonado Ardila, 2020; De la Cierva, 2018). Artificial intelligence tools enable a real-time, super-fast response to a crisis in a globally digitized world, which is one of the key factors in crisis management. Such monitoring enables earlier crisis prevention (De la Cierva, 2018, p. 129-190), which actually, thanks to new AI tools, increasingly resembles a "crisis intelligence service" (Maldonado Ardila, 2020, p. 42). In addition to early detection of negative signals from digital platforms, AI tools help identify botnet attacks faster and mitigate their consequences (Maldonado Ardila, 2020, p. 44).

2.3 AI and influencer marketing

Bots are "automated software agents programmed to generate messages, follow accounts, and respond to or share specific hashtags" (Maldonado Ardila, 2020, p. 448). Onwards, botnets are networks "of hundreds or even thousands of automated social bots that can target the same topic, hashtag or profile to manipulate and change the narrative of any conversation on social networks" (Zignal Labs quoted in Maldonado Ardila, 2020, p. 48). In addition, bots are capable of interacting with content in a human way, enabling influencers to buy fake followers, fake comments and likes, and in this way algorithms can create fake data, with the intention of deceiving other algorithms that will read or collect their data (Maldonado Ardila, 2020).

2.4 AI and media relations

Maldonado Ardila reminds us that in 2016 Bloomberg presented Project Cyborg with the goal of automating news writing, which today helps journalists publish articles on companies' earnings reports. "Robot reporters" have also been developed by The Associated Press, *The Guardian* and *The Washington Post* to cover financial reports, sports news and natural disasters. At the same time, *The New York Times* has no intention of incorporating machines into its own newsroom. Such practice will consequently affect relations with the media: media relations experts now need to write their announcements and reports in such a way that both journalists and machines can understand them (Maldonado Ardila, 2020, p. 50).

Furthermore, with AI, media relations professionals can more easily and accurately measure the effects of their media strategies (Maldonado Ardila, 2020). For example, the number of mentions in press articles will show them the success of their awareness goals; by analysing the sentiments of journalistic articles, it is possible to measure the success of goals regarding preference, and this can also be applied to the competition. It is also possible to measure the success of action-related goals, that is, how many times a media article directed traffic to the company's website (and it can also reveal which channel is responsible for this upward: newspaper content, advertisement or content from its own social networks) (Maldonado Ardila, 2020, p. 53-54). Also, AI makes it possible to identify an individual journalist who might be interested in the news of a certain organization (Maldonado Ardila, 2020, p. 58).

3. OVERVIEW OF THE ETHICAL ISSUES OF AI USE IN INSTITUTIONAL COMMUNICATION

3.1 Disinformation and breach of trust

As mentioned, bots can be misused to falsify data (Maldonado Ardila, 2020, p. 39-40). This gives spin doctoring unprecedented power, which can easily connect communication experts with the development of a post-truth society (Øyvind Ihlen et al., 2019; Kolić Stanić and Pejić Bach, 2023; Leśniczak, 2023). If artificial intelligence technologies are used in institutional communication to undermine the truthfulness and transparency of information (Kolić Stanić, 2020; Kolić Stanić, 2019), then they destroy the foundations of society, introducing it into the post-trust era (Gil and Jimenez, 2019). If truth is called into question, if facts do not count but only interpretations matter, if reality is difficult to distinguish from the construction of reality (Gil and Jimenez, 2019), then dialogue and trust, and relationships too, are also called into question. European communication experts believe that trust is the key strategic issue of their profession (Zerfass et al., 2021, p. 71).

3.2 Collecting big data and compromising the right to privacy

Artificial intelligence tools for monitoring digital channels and platforms, natural language processing tools or image or face recognition technologies need huge amounts of data to work properly and develop (Maldonado Ardila, 2020, p. 41). However, this data collection raises numerous ethical issues (Boddington, 2017, p. 17, 47, 92; Leta Jones and Edenberg, 2020, p. 359-374), including the manipulation of confidential business data of an organization or private data of individuals (Kolić Stanić and Pejić Bach, 2023; Kolić Stanić, 2020; Kolić Stanić and Barišić, 2019).

It is enough to recall the case of Facebook's cooperation with the analytics company Crimson Hexagon in 2018 to see how data collection and monitoring practices can have dangerous consequences if carried out for political purposes (Maldonado Ardila, 2020, p. 41). "Public data can tell companies how people feel at a certain time and place, which can be invaluable information for government agencies and political campaigns" (Maldonado Ardila, 2020, p. 41). Due to possible violations of the privacy of users of digital platforms, public relations professionals should adopt ethical data collection practices and ensure the transparency of their research methods, as algorithms can read private data that is not adequately protected. Gregory and Halff (2020) believe that the use of big data has damaged the reputation of public relations and that the profession must answer a number

of key questions if it does not want to reinforce the arguments that public relations is a "hegemonizing force in organizations and society".

3.3 Bots and the dehumanization of communication

A very serious ethical challenge is the dehumanization of communication, when robots are employed to intervene in communication between people. For example, on social networks, bots can communicate instead of people, often without the knowledge of the person communicating with the robot. It even happened to Elon Musk. It was not so long time ago when the *New Scientist* magazine published an article on AI in 2017 with the title "AI will be able to beat us in everything by 2060, experts say" (Maldonado Ardila, 2020, p. 5). The article was shared via Twitter and soon Elon Musk responded to the tweet: "Probably closer to 2030 to 2040. The year 2060 would be a linear extrapolation, but progress is exponential" (Maldonado Ardila, 2020, p. 5). In doing so, Musk was unaware that he was communicating with Echobox, an AI-driven social media management tool, which selected the article, generated the message, and shared it at a time of day that would increase traffic for the magazine's new website (Maldonado Ardila, 2020, p. 5). There is a research gap in the literature on ethical issues about the use of chatbots in institutional communication (Gregory and Halff, 2020). Due the dehumanization of communication, it seems as if the very foundations of institutional communication, understood above all as interpersonal dialogic communication, are shaking (Kolić Stanić and Pejić Bach, 2023; Kolić Stanić, Pejić Bach, and Dabo, 2023).

4. THE ETHICAL PRINCIPLES IN CHALLENGING AI AND PR PROFESSIONALS IN INSTITUTIONAL COMMUNICATION

4.1 "Rome Call for AI ethics"

Catholic Church's answer of the challenge of dehumanization of communication came 2020 through the Pontifical Academy for Life. It had a crucial role in establishing the wider initiative called The Rome Call for Ethics in the Field of Artificial Intelligence, offering ethical principles of human-centered artificial intelligence, which was also signed by some of the chief personnel in digital technologies corporations (Čunderlík Čerbová, 2021), and many others after the presentation. The motivation for the initiative is clearly defined:

> Given the innovative and complex nature of the questions posed by digital transformation, it is essential for all the stakeholders involved to work together and for all the needs affected by artificial intelligence to be represented. This Call is a step forward with a view to growing with a common understanding and searching for a language and solutions we can share. Based on this, we can acknowledge and accept responsibilities that take into account the entire process of technological innovation, from design through to distribution and use, encouraging real commitment in a range of practical scenario. In the long term, the values and principles that we are able to instil in artificial intelligence will help to establish a framework that regulates and acts as a point of reference for digital ethics, guiding our actions and promoting the use of technology to benefit humanity and the environment. (RenAIssance Foundation, 2020)

The Rome Call argues that the ethics of artificial intelligence is to be based on six principles. The first principle is Transparency: artificial intelligence systems must be explainable. The second principle is Inclusion: the needs of all human beings must be taken into consideration so that everyone can benefit and all individuals can be offered the best possible conditions to express themselves and develop. The third principle is Responsibility: those who design and deploy the use of artificial intelligence must proceed with responsibility and transparency. The fourth principle is Impartiality, with a direct massage: do not create or act according to bias, thus safeguarding fairness and human dignity. In the fifth principle – Reliability – it is important that artificial intelligence systems must be able to work reliably. The last principle – Security and Privacy – holds an imperative that artificial intelligence systems must work securely and respect the privacy of users (RenAIssance Foundation, 2020). Although these six principles are clearly defined, it is questionable how they can be practically applied among church institutional communicators. That is why it is necessary to compare them to the principles of the PR ethics.

4.2 Six ethical principles of PR

The role of human person should be also crucial in PR ethics. Recently, there has been an attempt to build human-centered PR ethics, based on the human dignity of each person engaged in PR communication (Kolić Stanić, 2020). Six principles of PR ethics were the fruit of the dialogue of 13 ethical codes of members of 18 PR associations from the European Union and the United States of America and intellectual legacy of Luka Brajnović (1919-2001), a pioneer of both journalistic ethics and information theory (Kolić Stanić 2020). These principles are: (1) Truthfulness, (2) Transparency, (3) Professional Integrity, (4) Professional Competence, (5) Loyalty, and (6) Social Responsibility. Before we answer the question how these principles can be linked due the growing impact

of AI, we will shortly present them in the way they are described in the paper "How the Theory of Information and Journalism Ethics Contributes to the Ethics of Public Relations: Six Principles from the Dialogue Between Codes of Ethics and Luka Brajnović's Legacy" (Kolić Stanić, 2020), but with the focus on the issues more inked to the use of AI.

The Principle of Truthfulness of Information obligates PR experts to respect truth, to avoid lying, not to mislead the public, to avoid exaggeration, explaining and interpreting information, to offer accurate information, and, finally, it points out the duty of rectification. Transparency implies the duties of respecting the transparency of information, offering and maintaining transparent results; declaring any conflict of interest (financial or other); and not offering/accepting gifts that can put somebody in a dependent position. The principle of integrity of PR professionals implies the following duties: to develop and protect one's integrity, to carry out professional work honestly, to develop professional virtues where justice is at stake. The fourth principle, professional competence, means that a PR expert should be well prepared, adequately educated, to possess necessary practical skills, to continuously improve himself or herself, to contribute to the prestige of the profession, and to accept assignments according to one's competences. The principle of professional loyalty includes being loyal to oneself, the colleagues, the employer, those who one decided to represent, the public, and the society, but also to respect professional secrets. And, finally, the principle of social responsibility can be explained with the acting of PR professionals in a socially responsible manner and in a way that will contribute to the common good, personal and human rights, democracy, laws and culture.

4.3 Comparison between two groups of principles

In comparison the principles of the Rome Call for Ethics in the Field of AI and the principles of PR ethics, we can argue that they directly share two principles: Transparency and (social) Responsibility. Indirectly, the Rome Call's principle of Impartiality ("do not create or act according to bias, thus safeguarding fairness and human dignity") is very similar to PR ethics principle of Social Responsibility (contribute to the common good, personal and human rights, democracy, laws and culture). Rome's Call principle of Inclusion – the needs of all human beings must be taken into consideration so that everyone can benefit and all individuals can be offered the best possible conditions to express themselves and develop – is also partially harmonized with the PR's principle of Social Responsibility (contribute to the common good, personal and human rights, democracy, laws and culture). Even the principle of Reliability from the Rome

Call (artificial intelligence systems must be able to work reliably) can connect with the PR principle of professional competence; and the case is similar with the principle of Security and Privacy, which is included in the principle of loyalty. That means that both groups of the principles, those from the Rome Call for AI ethics and from PR-ethics, share the majority of principles. The exceptions are the crucial PR principles of Truthfulness and Integrity, which are not present in the Rome Call.

CONCLUSION

There is no doubt that nowadays institutional communication uses artificial intelligence and that there exist many ethical issues in applying it in the field of public relations, including the institutional communication of the Catholic Church. The aim of this paper was to examine whether the ethical principles of public relations – which derive from the theory of information and communication of prominent media ethicist Luka Brajnović – can be applied to the use of artificial intelligence in church institutional communication. PR principles of truthfulness, transparency, integrity, competence, loyalty and social responsibility partly coincide with the ethical principles of the "Rome call for AI Ethics" and it seems that could be more than sufficiently universal and applicable to the use of artificial intelligence in the institutional communication of the Catholic Church. The great challenge for communication professionals who use artificial intelligence is to fulfil the principles of trustfulness and integrity.

The truth and artificial intelligence should be more connected as ethical imperative. Pope Francis "talks about searching for truth and the importance of consensus in searching for truth, while at the same time making a claim that it is not consensus that creates the truth: truth has a value, a worth, and a standing of its own" (Green, 2022). At the same time the Pope says:

> It is important to reiterate: "Artificial Intelligence, robotics and other technological innovations must be so employed that they contribute to the service of humanity and to the protection of our common home, rather than to the contrary, as some assessments unfortunately foresee" (Message to the World Economic Forum in Davos, 12 January 2018). The inherent dignity of every human being must be firmly placed at the centre of our reflection and action. (Francis, 2019)

Pope Francis also wrote that AI "is at the heart of the epochal change we are experiencing. Robotics can make a better world possible if it is joined to the

common good. Indeed, if technological progress increases inequalities, it is not true progress. Future advances should be oriented towards respecting the dignity of the person and of Creation. Let us pray that the progress of robotics and artificial intelligence may always serve humankind…' (Francis, 2020).

Institutional communication is the organized communication of an institution aimed at persons or groups of persons who are part of the society in which that institution operates (La Porte, 2009). That means that PR professionals who work in Church institutions should have high ethical standards in protecting human person. The very same is articulated in the Rome Call of AI ethics, which pointed to the request to develop "artificial intelligence that serves every person and humanity as a whole; that respects the dignity of the human person, so that every individual can benefit from the advances of technology; and that does not have as its sole goal greater profit or the gradual replacement of people in the workplace." In other words, this cannot be achieved without respecting the ethical principles of the truth and professional integrity. Both are great challenges for further analyses and the practices of the Church's communicators.

BIBLIOGRAPHY

Arasa D. (2018), *A Communication Reflection from Evangelii Gaudium: Teachings for Church Institutional Communications*, Łódzkie Studia Teologiczne 27, no. 1, p. 11-35.

Boddington P. (2017), *Towards a Code of Ethics for Artificial Intelligence*, Cham: Springer International Publishing.

Bryson J.J. (2020), *The Artificial Intelligence of the Ethics of Artificial Intelligence*, [in:] Dubber, Pasquale, and Das, 2020, p. 3-15.

Castells M. (2000), *Uspon umreženog društva* [The Rise of the Network Society], Zagreb, Golden marketing.

Copeland B.J. (2021, December 14), s.v. *Artificial Intelligence*, [in:] *Encyclopedia Britannica*, https://www.britannica.com/technology/artificial-intelligence [accessed: 1.02.2024].

Čunderlík Čerbová V. (2021), *Artificial Intelligence, Ethics and Catholic Church*, [in:] I. Florek and I. Laki (eds.), *Human Rights. From Reality to the Virtual World*, Józefów: Alcide De Gasperi University of Euroregional Economy.

De la Cierva Y. (2018), *Leading Companies through Storms and Crises*, Barcelona: IECE.

Donath J. (2020), *Ethical Issues in Our Relationship with Artificial Entities*, [in:] Dubber, Pasquale, and Das, 2020, p. 53-73.

Dubber M., Pasquale F., and Das S. (eds.) (2020), *The Oxford Handbook of Ethics of AI*, New York: Oxford University Press.

Francis (2019), *Speech to the Pontifical Academy for Life*, https://www.academyforlife.va/content/dam/pav/documenti%20pdf/2019/Assemblea2019/Discorsi%20ufficiali%20PAPA%20PAGLIA/ADDRESS%20OF%20HIS%20HOLINESS%20POPE%20FRANCIS.pdf [accessed: 1.02.2024].

Francis (2019), *Artificial Intelligence*, http://www.academyforlife.va/content/pav/en/projects/artificial-intelligence.html [accessed: 1.02.2024].

Freberg K. (2022), *Social Media for Strategic Communication*, Thousand Oaks: Sage.

González Gaitano N. (2017), *More Than a Media System Failure? Reason, Faith and Mercy as Comprehensive Paradigms for Communication*, Church, Communication and Culture 2, no. 1, p. 1-7.

Gregory A. and Halff G. (2020), *The Damage Done by Big Data-Driven Public Relations*, Public Relations Review 46, no. 2, 101902, https://doi.org/10.1016/j.pubrev.2020.101902.

Green B.P. (2022), *The Vatican and Artificial Intelligence: An Interview with Bishop Paul Tighe*, Journal of Moral Theology 11, no. 1 (special issue), p. 212-231.

Gasser U. and Schmitt C. (2020), *The Role of Professional Norms in the Governance of Artificial Intelligence*, [in:] Dubber, Pasquale, and Das, 2020, p. 141-159.

Gil A. and Jiménez Cataño R. (2019), editorial, *Special Issue on Post-Truth*, Church, Communication and Culture 4, no. 3, p. 251-254, https://doi.org/10.1080/23753234.2019.1664919.

Ihlen Ø., Gregory A., Luoma-aho V., and Buhmann A. (2019), introduction, *Post-truth and Public Relations*, Public Relations Review 45, no. 4, 101844, https://doi.org/10.1016/j.pubrev.2019.101844 [accessed: 1.02.2024].

Leta Jones M. and Edenberg E. (2020), *Troubleshooting AI and Consent*, [in:] Dubber, Pasquale, and Das, 2020, p. 359-374.

Kolić Stanić M., Pejić Bach M., and Dabo K. (2023), *Umjetna inteligencija u kriznome komuniciranju s aspekta društvene odgovornost* [Artificial intelligence in crisis communication from the perspective of social responsibility], International Interdisciplinary Scientific Conference "Media and Social Responsibility", Catholic University of Croatia, University Department of Communication Sciences, Zagreb, 13 October 2023.

Kolić Stanić M. and Pejić Bach M. (2023), *Što čitaju algoritmi? Etička pitanja u odnosima s javnošću* [What do algorithms read? Ethical issues in public relations], International Interdisciplinary Scientific Conference "Readers and Reading in the Digital Age", Department of Communication Sciences, Catholic University of Croatia, Zagreb, 11 November 2021.

Kolić Stanić M. (2020), *How the Theory of Information and Journalism Ethics Contributes to the Ethics of Public Relations: Six Principles from the Dialogue between Codes of Ethics and Luka Brajnović's Legacy*, Church, Communication and Culture 5, no. 1, p. 36-62, https://doi.org/10.1080/23753234.2020.1713013.

La Porte J. M. (ed.) (2009), *Introduzione alla Comunicazione Istituzionale della Chiesa*, Roma: Edizioni Università della Santa Croce.

Leśniczak R. (2019), *Mediatization of Institutional Communication of the Catholic Church. Reflections on the Margins of the Migration Crisis*, Studia Medioznawcze 20, no. 3, p. 237-246, https://doi.org/10.33077/uw.24511617.ms.2019.3.

Leśniczak R. (2023), *Hate Speech from the Perspective of the Mediatization of Religion in the Post-secular Age. A Few Remarks for Discussion*. Methaodos. Revista de ciencias sociales 11, no. 1, m231101a02-m231101a02.

Maldonado Ardila M. (2020), *The Rise of Intelligent Machines: How Artificial Intelligence Is Transforming the Public Relations Industry*, A Thesis Presented to the Faculty of the USC Annenberg School for Communication and Journalism University of Southern California, USC Digital Library, http://digitallibrary.usc.edu/cdm/landingpage/collection/p15799coll89 [accessed: 1.02.2024].

Mattern S. (2020), *Calculative Composition – The Ethics of Automating Design*, [in:] Dubber, Pasquale, and Das, 2020, p. 571-587.

Pejić Bach M. et al. (2019a), *Text Mining of Industry 4.0 Job Advertisements*, International Journal of Information Management 50, p. 416-431, https://doi.org/10.1016/j.ijinfomgt.2019.07.014.

Pejić Bach M. et al. (2019b), *Text Mining for Big Data Analysis in Financial Sector: A Literature Review*, Sustainability 11, no. 5, 1277, https://doi.org/10.3390/su11051277.

Polak M., Kolić Stanić M., and Togonal M. (2022), *Artificial Intelligence in Communication with Music Fans: An Example from South Korea*, ENTRENOVA – ENTerprise Research InNOVAtion 8, no. 1, p. 48-63, https://doi.org/10.54820/entrenova-2022-0006.

RenAIssance Foundation (2022), *Rome Call for AI Ethics*, https://www.romecall.org/wp-content/uploads/2022/03/RomeCall_Paper_web.pdf [accessed: 1.02.2024].

Slee T. (2020), *The Incompatible Incentives of Private-Sector AI*, [in:] Dubber, Pasquale, and Das, 2020, p. 107-123.

Sobrosa Neto R.D.C., Sobrosa Maia J., de Silva Neiva S., Scalia M.D., and Guerra J.B.S.O.A. (2020), *The Fourth Industrial Revolution and the Coronavirus: A New Era Catalyzed by a Virus*, Research in Globalization 2, 100024, https://doi.org/10.1016/j.resglo.2020.100024.

Zerfass A. et al. (2019), *European Communication Monitor 2019*, https://www.communicationmonitor.eu/2019/05/23/ecm-european-communication-monitor-2019 [accessed: 1.02.2024].

Zerfass A. et al. (2020), *European Communication Monitor 2020*, https://www.communicationmonitor.eu/wp-content/uploads/dlm_uploads/ECM2020-Results-ChartVersion.pdf [accessed: 1.02.2024].

Zerfass A. et al. (2021), *European Communication Monitor 21*, https://www.communicationmonitor.eu/2021/05/21/ecm-european-communication-monitor-2021 [accessed: 1.02.2024].

Zerfass A. et al. (2023), *European Communication Monitor 23*, https://www.communicationmonitor.eu/2023/09/07/ecm-european-communication-monitor-2023 [accessed: 1.02.2024].

JAK ETYCZNIE WYKORZYSTAĆ SZTUCZNĄ INTELIGENCJĘ W KOMUNIKACJI INSTYTUCJONALNEJ KOŚCIOŁA KATOLICKIEGO?

Streszczenie

Celem artykułu jest zweryfikowanie, czy zasady etyczne sfery public relations – wywodzące się z teorii informacji i komunikacji wybitnego etyka mediów Luki Brajnovića – można zastosować do wykorzystania sztucznej inteligencji w komunikacji instytucjonalnej Kościoła. Zasady Brajnovića dotyczące prawdomówności, przejrzystości, uczciwości, kompetencji, lojalności i odpowiedzialności społecznej częściowo pokrywają się z zasadami etycznymi zawartymi w dokumencie *Rzymskim apelu o etykę SI*, i mogłyby być wystarczająco uniwersalne i mieć zastosowanie do wykorzystania sztucznej inteligencji w komunikacji instytucjonalnej Kościoła katolickiego.

Słowa kluczowe: sztuczna inteligencja; komunikacja; etyka; informacja; public relations