EthAIca. 2024; 3:100
doi: 10.56294/ai2024100

REVIEW

Impact of Artificial Intelligence on Journalism Training

Impacto de la Inteligencia Artificial en la Formación Periodística

Hermin Samuel Vera Candelario[1], Héctor Córdova[1]

[1]Universidad de Guayaquil, Ciencias de la Comunicación Social. Guayaquil, Ecuador.

Cite as: Vera Candelario HS, Córdova H. Impact of Artificial Intelligence on Journalism Training. EthAIca. 2024; 3:100. https://doi.org/10.56294/ai2024100

Submitted: 05-06-2023 **Revised:** 12-09-2023 **Accepted:** 01-01-2024 **Published:** 02-01-2024

Editor: PhD. Rubén González Vallejo

ABSTRACT

This research addressed how the use of artificial intelligence influenced the academic training of journalism students at the Faculty of Social Communication (FACSO) of the University of Guayaquil. It was observed that, although these tools offered benefits such as task automation, data analysis, and content generation, they also created a growing technological dependency. This dependence compromised the development of fundamental journalism skills, such as critical writing, source verification, and analytical judgement. From a theoretical perspective, models such as social communication theory, professional ethics, and the social construction of technology were used to understand the relationship between the student, the technological tool, and the academic environment. Furthermore, it became clear that the implementation of AI required a review of educational methods in order to balance the use of technology with the development of human and ethical skills. Methodologically, the study combined quantitative and qualitative approaches, using surveys and interviews to collect data on the use, perception and learning of these technologies. Finally, it was concluded that AI should not replace critical thinking or journalistic creativity, but rather be integrated ethically and equitably as a complement to the educational process, thus promoting job preparation adapted to the demands of the digital environment.

Keywords: Artificial Intelligence; Digital Journalism; Technological Dependency; Academic Training; Professional Ethics.

RESUMEN

La presente investigación abordó cómo el uso de la inteligencia artificial influyó en la formación académica de los estudiantes de periodismo de la Facultad de Comunicación Social (FACSO) de la Universidad de Guayaquil. Se observó que, aunque estas herramientas ofrecieron beneficios como la automatización de tareas, análisis de datos y generación de contenido, también generaron una creciente dependencia tecnológica. Dicha dependencia comprometió el desarrollo de habilidades fundamentales del periodismo, como la redacción crítica, la verificación de fuentes y el juicio analítico. Desde una perspectiva teórica, se recurrió a modelos como la teoría de la comunicación social, la ética profesional y la construcción social de la tecnología, para entender la relación entre el estudiante, la herramienta tecnológica y el entorno académico. Además, se evidenció que la implementación de la IA exigió una revisión de los métodos educativos, con el fin de equilibrar el uso de la tecnología con la formación de competencias humanas y éticas. Metodológicamente, el estudio combinó enfoques cuantitativos y cualitativos, mediante encuestas y entrevistas, recopilando datos sobre el uso, percepción y aprendizaje de estas tecnologías. Finalmente, se concluyó que la IA no debía reemplazar el pensamiento crítico ni la creatividad periodística, sino ser integrada de manera ética y equitativa como complemento en el proceso formativo, impulsando así una preparación laboral adaptada a las exigencias del entorno digital.

Palabras clave: Inteligencia Artificial; Periodismo Digital; Dependencia Tecnológica; Formación Académica; Ética Profesional.

INTRODUCTION

Today many professionals, as well as digital journalists exercise their skills through artificial intelligence, making their work platforms a work reflected in perfectionism; however, students who are preparing to practice this career, are altering their knowledge in the process of learning within FACSO, resulting in technological dependence.

Continuously using tools and technologies of artificial intelligence in digital journalism, commits changes in those competencies that are required for students who are preparing to be able to practice this profession, however, these tools can mechanize basic writing tasks, ascertain data of more information and especially analyze the use of content consumption, causing a place of technological dependence, limiting the skills and techniques that are fundamental bases in journalism.

From an academic point of view, artificial intelligence can be useful as a tool to supplement the training in digital journalism, however, its use can be useful in transforming the expectations and attitudes of students regarding the role of the journalist and the social responsibility of this profession.

Implementing artificial intelligence in digital journalism through FACSO students, calls to rethink teaching methods and to take into consideration the integration of strategies that promote the ethical and efficient use of these technologies; if handled in a responsible manner, artificial intelligence could be indispensable for students committing them to results such as good quality information.

The use of artificial intelligence in digital journalism symbolizes a remarkable topic in terms of the academic area, because of implications in the growth of the formation of students in the journalism career, therefore, from a theoretical perspective, this research focuses on theories of communication intervened by technology, such as digital concepts in learning and competencies in a professional manner.

Artificial intelligence in journalism has access to optimize processes such as, data collection, news formation and content analysis, in order to instruct the student with future results for good performance in journalism, causing an academic debate about the ethical and technical representation that are necessary for the use of artificial intelligence in the journalist's practice.

Practical Justification

From the practical point of view, the present study has validity on students and for those journalism professionals who are being formed at FACSO, therefore, the increase of implementing artificial intelligence in journalistic duties, is essential in future journalists, since it allows them to develop skills in an efficient and effective way within the professional development, thus, providing practical information regarding the tools and technologies that exist today, involving the teaching process and at the same time promoting the responsible use and in accordance with the principles of the profession.

This will help students to put it into practice in a labor field in a continuous way in the technological evolution, thus avoiding being dependent on technology, allowing to limit the development of critical skills for the exercise of journalism.

Spatial Delimitation

The present research will be carried out in the city of Guayaquil, especially directed to the students of the eighth and ninth semester of the School of Social Communication of the University of Guayaquil.

Figure 1. FACSO

The research will be determined in the career of social communication, in the eighth and ninth semester, between the months of October to December, allowing to analyze what is the impact of artificial intelligence in the course of the formation of the students of FACSO.

The population of the study will be the students who are in the eighth and ninth semester of the Social Communication career.

Methodological Justification

From a methodological perspective, this study will use a quantitative and qualitative approach in order to understand in a better way the impact of artificial intelligence in the academic training of FACSO students, so, through interview and surveys, it is intended to collect data and information, on the use, perception of students and learning of artificial intelligence in digital journalism, providing a comprehensive analysis of those tools used by students.

This approach will allow to propose improvements in teaching methods, promoting a journalistic training that is coupled with technological innovation and also with the ethical and professional commitment.

DEVELOPMENT

Background of the Research

In recent years, artificial intelligence has developed increasingly, being a fundamental tool for future students of FACSO regarding their journalistic work, being so, that today, many of them are replacing their skills by the constant use of artificial intelligence, making everything is handled under the perception of artificial intelligence rather than by the use of their own human skills.

According to Guerrero Troya[1], it is important to be clear about the fundamental use of artificial intelligence, as well as in a professional and ethical manner, with favorable results in terms of greater efficiency, better creativity and analysis to create new content that is appealing to the audience.

However, there are also consequences in the professional field generated by artificial intelligence, since many of the current journalists have complications when adapting to the use of artificial intelligence, which ends up replacing the talent of journalists, with poor writing, and sometimes leaving untruthful information, causing a world of fake news for those who are behind the screen.[1]

According to the study conducted by Gómez[2], artificial intelligence employs areas that specialize in machine learning, which provides algorithms that can quickly recognize patterns and at the same time allow predicting natural language thinking, as well as the consumption of media information.

As pointed out a study, for digital journalism, artificial intelligence has been a support that serves to improve the search for content in the professional field, which allows journalists to concentrate on doing more creative work in all areas, while offering ethical information to the audience.

The constant evolution of artificial intelligence and its application in journalism, has led to several investigations on the role that artificial intelligence is currently playing in the population, becoming a trend in terms of the use of this tool in digital journalism and in turn playing an important role in meeting the needs of journalists when writing any information in the medium or long term.

In his analysis García[3], he emphasizes that, to a large extent, students make frequent use of artificial intelligence to create content on their digital platforms without true information, where they find themselves with an absence of their own analysis and a possibility of dependence on the use of this tool, so it is important to know how to use this tool, since the success of professionalism depends on it.

In addition, Garcia[3], expresses that, as artificial intelligence continues to grow in the area of education, it creates the need to emphasize the use of ethics, making that, for students, they can create original content and more pleasing to the audience, since, through it can be verified the professionalism and potential in each of their digital reports.

Theoretical Basis

Artificial intelligence has become, in recent times, a key paradigm to understand the behavior of the advancement in technology by the information system, particularly in the field of its content, thus linking directly to the group of digital technologies, where its main objective is to form those computer procedures that match the humanistic behavior, causing them to be able to solve difficult issues in their professional environment and to be able to impart quality information on its own merits.[4]

Social Communication Theory

The theory of social communication consists of those procedures that occur through people, of which information is exchanged, nonverbally and verbally, its progress consists of the relationship it has with the understanding of messages that harm societies and especially individuals, so, communication refers to that not only transmits information, but it is also based on that people can interact through dialogue.

According to Caballero[5], one of the communicative theories is that of Kurgen Habermas, where his theory focuses on the fact that communication is an essential contribution to involve dialogue and interaction between two or more individuals, in which he uses three kinds of actions, such as communicative action, which serves

to understand the dialogue, strategic action, which is used for selfish purposes, and instrumental action, where people who dialogue have ethical principles for their coexistence.

The theory of social communication is applied to the use of artificial intelligence in digital journalism, in a way that highlights how digital tools and algorithms are a source of production for the consumption of digital journalism.

A source of production for the consumption of news, in such a way that it promotes the ease of access of information between senders and receivers, making it reflected in learning towards the critical understanding of communication by means of artificial intelligence.

Ethics Theory

The theory of ethics is defined as, proposals that need to find explanations about the moral nature, in such a way, in which it can be considered for lack of currents such as scientific positivism and critical rationalism, so they must be denied to certain moral judgments.[6]

According to Blanco[7], one of the ethical theories is that of Aristotle, where he examined which was the way in which the human being could overcome himself, taking advantage of the potential of good that he has in his nature.

On the other hand, Aristotle's ethics is based on an interested experience; however, its main idea is to respond to the question of duty to be, considering that the supreme good of all human activity is happiness, so that, for him, the meaning of happiness is an activity of rational soul in conformity with virtue, being classified into intellectual or ethical virtues.

On the other hand, Plato's ethics is specified in the virtue of man, where the behavior of the human being is evaluated, so in his work The Republic, he emphasizes that justice is a harmony that reflects how the soul is, so reason must be executed as the knowledge of the good, to have a virtuous and just life.

Through the thought of these two great Greek philosophers, it can be deduced that, the technique of ethics in the application of artificial intelligence for digital journalism is essential to clarify how a work should be done in a responsible manner, where values are reflected at the time of using any information to make a digital news.

Theory of Education

The theory of education is based on a series of assumptions, that is, on those hypotheses that focus on education, value and also on the limits that establish the process of education, so among its components of this theory are, the abstract knowledge of the educational phenomenon, which is given by knowledge or by their notions of education; the relative truths, which are given by the facts and the experience of man; and theoretical knowledge, which serves to clarify the educational phenomena based on a social structure.[8]

One of the first to interpret the theory of education was Herbert Spencer, which his thinking is based on the learning that an individual should have for the entire stage of his life, as well as taking into account his practical knowledge, in which he defends acts of merit of science and his abilities to develop competencies in the social aspect.[9]

Artificial intelligence, is part of education, in order to help those students who need a guide to exercise journalistic works, therefore, with the help of this AI tool, it is possible to carry out a better participation and performance in students with skills in specialized areas of greater interest, providing ideas and above all obtain creativities in learning styles.

Social Construction of Technology Theory

The theory of the social construction of technology refers to the argumentation that must be had for the development of technology, in order to determine the social groupings that have a common purpose based on technology, which allows understanding the digital transformation as the union between the social grouping and the technological process can result in an analysis around the digital transformation.[10]

According to Cavalli et al.[11], there are two main authors who contributed to the theory of the social construction of technology, such as Pinch and Bijker who proposed a multidirectional analysis system by means of the social group as a quality of analysis, in addition to the controversy that is held about the construction of artifactual meanings in discord.

Through the theory of the social construction of technology, artificial intelligence can be developed in journalism in a way that through digital tools, it can be shaped by social groups, such as journalists, editors and the audience, making their skills grow through the ethical design of algorithms, thus forming future journalists who seek to have a balance between objectivity and technology.

Types of AI tools in Digital Journalism

According to Vállez et al.[12], the types of tools that are used in digital journalism are divided into three groups, of which are mentioned below:

Data Management and Observation

Its tools are:

Open Refine: a free tool for using unprocessed data that offers data cleansing, which can be transformed and organized in an efficient and timely manner.

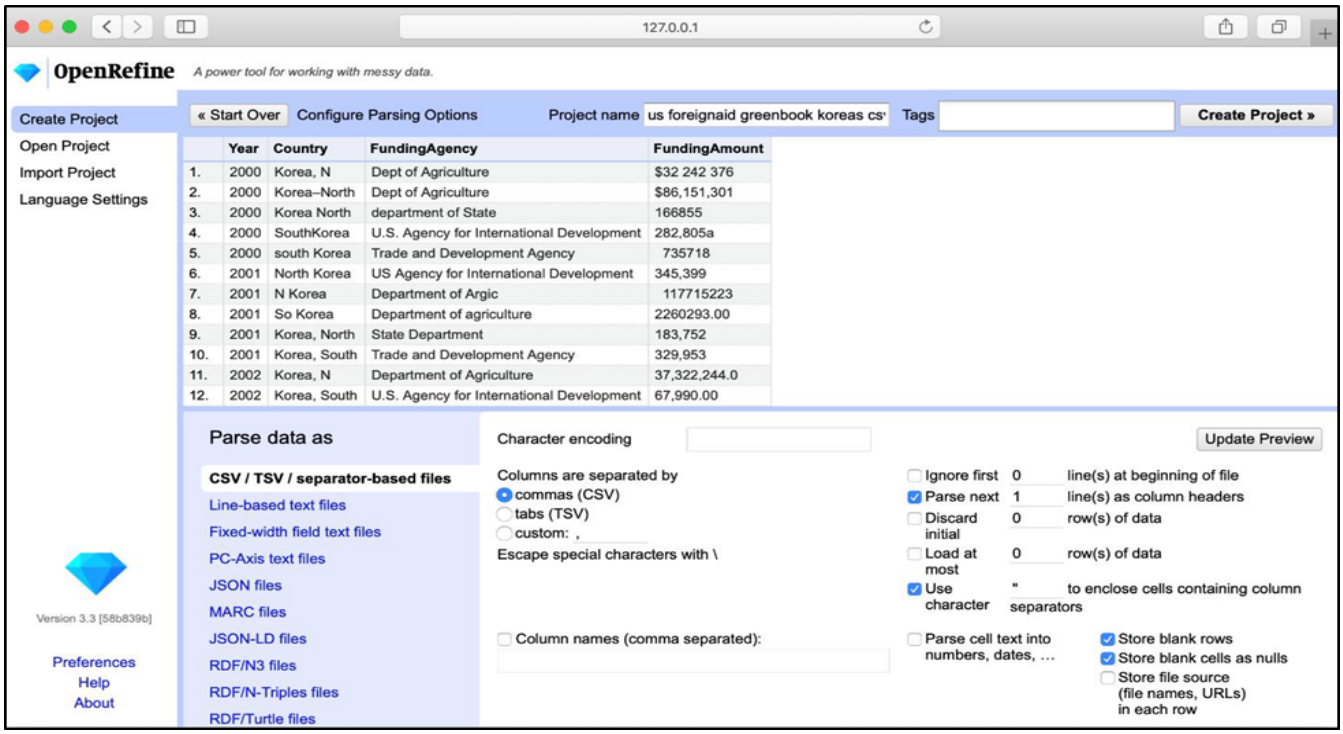

Figure 2. Open Refine

Overview: it is an open access software application, which allows reading and analyzing hundreds of files quickly, optimizing time, and above all helps to find visualizations and identification of entities, within a visual and easy to use area.

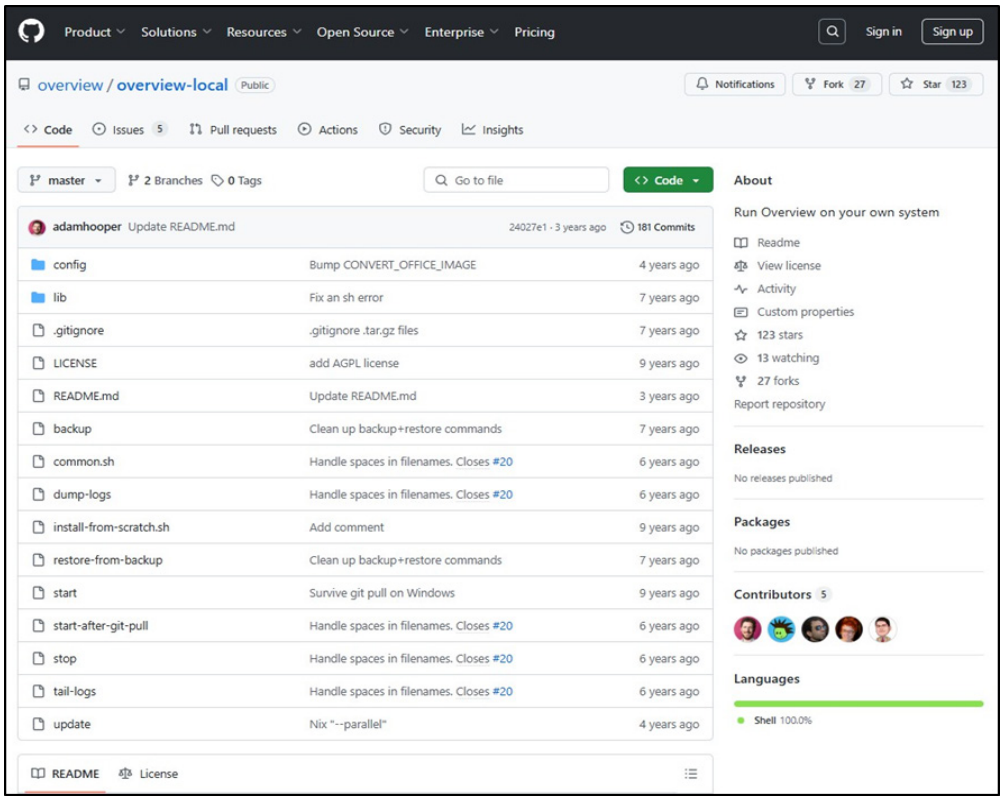

Figure 3. Overview

Tableau Public: it is a free platform that allows the user to create and share interactive images, as well as maps and panels with immediate and real-time updates.

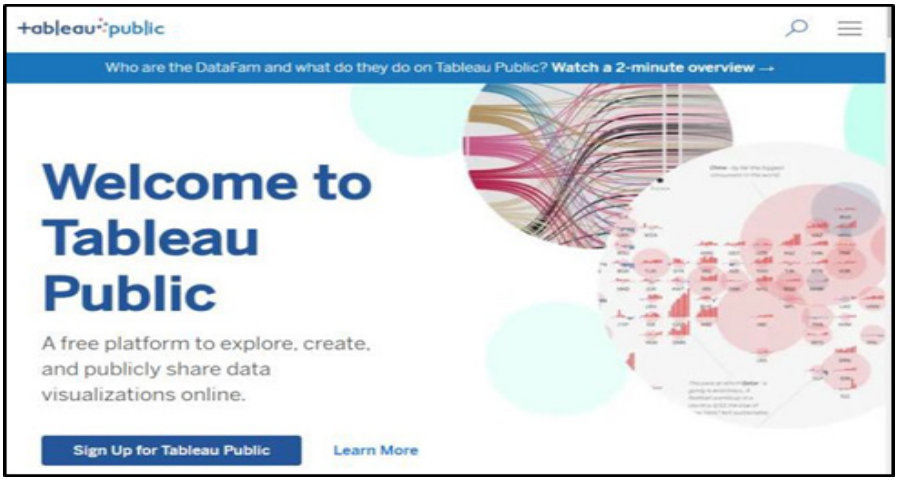

Figure 4. Tableau Public

Flourish: by means of spreadsheets, it is possible to innovate graphics with greater visual effect, and to use dynamic stories.

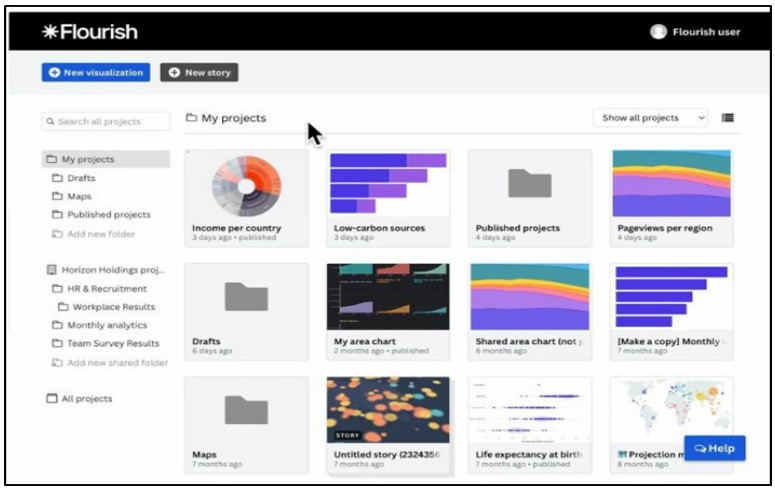

Figure 5. Flourish

Figure 6. Opta

Content Formation and Natural Language Mechanism

Their tools they use are:

Wordsmith from Automaded Insights: it is a natural language training tool that transforms data into description in a personalized way.

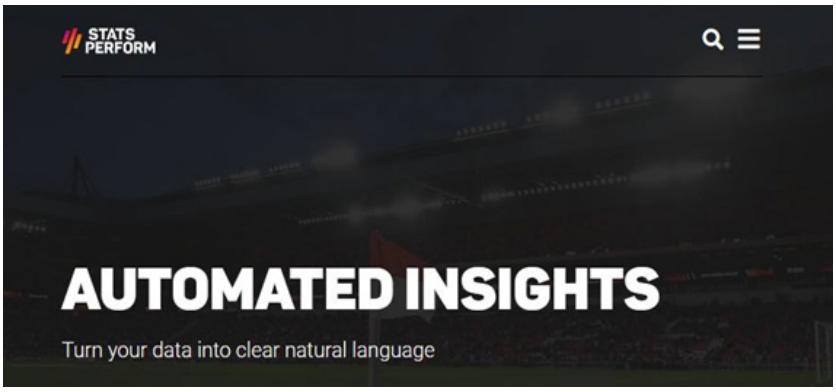

Figure 7. Automaded Insights Wordsmith

Quill from Narrative Science: it is a platform that serves to form natural language, converting descriptive data on a scale basis, in a simple and understandable language, which highlights the most notable information according to each context.

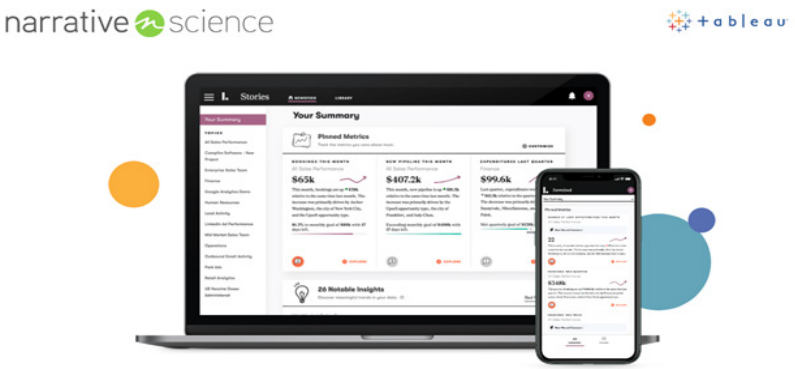

Figure 8. Narrative Science Quill

OpenCalais: discovered by Thomson Reuters, which helps to process information by identifying entities, events, connections and social categories, while providing the file in RDF format with the data obtained, allowing to organize information that is not structured.

Figure 9. OpenCalais

Cloud Natural Language API: it is a Google tool that separates data from unstructured text using Google's instant learning models; in addition, it allows understanding emotions that are made on social platforms or in a text.

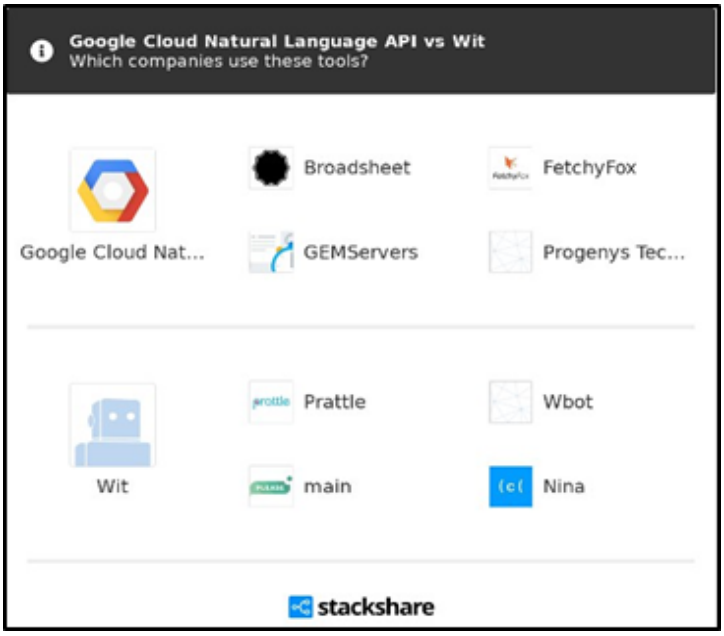

Figure 10. Cloud Natural Language Api

Content Delivery

DocumentCloud: this tool allows journalists to store information, to then be able to, Disseminate, disseminate, comment, and examine those original documents online.

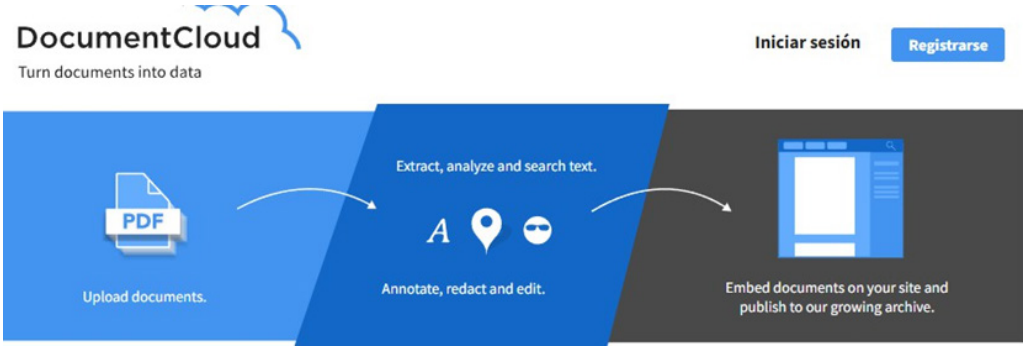

Figure 11. DocumentCloud

Ushahidi: it is used to collect information directly from witnesses through crowsdsourcing.

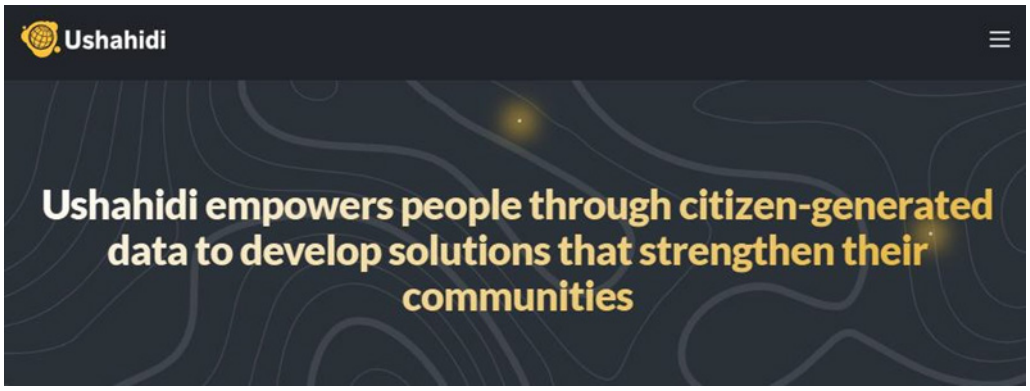

Figure 12. Usahidi

Project Shield: it is a free platform that uses Google technology to address irrelevant news sites by distributed denial of service on the Internet, in other words, it helps to fight against censorship that exists today on the Internet.

Figure 13. Project Shield

Academic competencies

Academic competence in the field of digital journalism has become a relevant issue before professionals, as well as the implementation in education of those technological tools that are dispensable for the development of their tasks, being so, nowadays one of the outstanding academic competences is the ability to be able to handle algorithms, as well as to analyze data and use ethics within artificial intelligence.

Artificial intelligence emerges a fundamental role in academic performance, since, through the use of AI tools, students can develop academic competencies and skills in relation to digital journalism, thus forming an adequate profile for when they become professionals.[13]

Ethics

It is evident that, if the artificial intelligence platform is used, there will be a greater risk of plagiarism regarding the information provided by the author, since many times the tools provided by artificial intelligence based on digital journalism offer content that are under reservation of the author's rights, causing the essence of the information to be lost, thus affecting the reliability and validity of the data provided.

According to a study, there are ethical challenges in education about artificial intelligence such as:

- Privacy and Data Protection: artificial intelligence is constituted by the collection and by the analysis of huge amounts based on personal data, this includes educational performance, learning styles and demographic statistics, resulting in concerns to the authors due to the possibility that the content provided may be used for non-educational purposes.
- Equity and Access: refers to those institutions that possess with more technological resources can make use of artificial intelligence for their own benefits, unlike institutions that do not possess this type of resources, will have a low performance with respect to the inequality of opportunity to use these tools that are necessary for the education of those students who pursue digital journalism.
- Transparency and Accountability: it is important that society understands how the tools that have artificial intelligence work, since the lack of algorithmic transparency can lead to distrust and not be satisfied with what these systems provide.

Job preparation

Artificial intelligence in higher education can be very useful for teachers through their teachings, since, the previous knowledge that students are going to take can be learned in a more interactive way, creating new opportunities for the workplace.

One of the biggest challenges that the teacher has for the labor preparation of students who are interested in pursuing digital journalism, is to train them using technological means, of which they must learn how to be use of it, its operation and those working models that are demanded today, in order to increase their level of professionalism.[14]

Contextual Framework

The incorporation of artificial intelligence has made significant changes in digital journalism, since it offers, the collection of information and distribution of this, through certain tools that are useful for writing journalistic

notes, providing new challenges and opportunities in the workplace for those students who are learning about digital journalism at FACSO.[15,16]

Students who are interested in practicing this profession must adapt to new technologies that are being used, of which, it is a great challenge for FACSO to implement this system in the teaching of its students, since, through it, a great labor preparation can be achieved for future professionals of the republic of Ecuador.[17]

From the educational point of view, the integration of AI in social communication students is necessary, because it not only helps practical learning, but also helps students to be more creative, developing their skills and techniques by using these tools within FACSO.[18,19]

However, not all FACSO students have the resources to use the tools provided by artificial intelligence, of which, it is necessary for FACSO, to promote innovation strategies, to be able to access these technological resources and implement learning workshops accessible to FACSO students, in order to ensure, that all students are on equal terms.[20]

Conceptual Framework

Algorithm

Algorithms are data analysis, which promote information automatically, they are based on pre-defined rules and data, these may have biases or margin of error in terms of the information provided; in addition, they may have certain difficulties to understand the social, political or cultural framework of a news item.[15]

Artificial intelligence is related to algorithms, because it allows them to acquire data and process them, which makes possible its development in the advances through the systems that provide artificial intelligence, for this reason, they complement each other by working together for the proper results.[21]

Artificial Intelligence

Artificial intelligence is a tool that possesses knowledge through its experience, has the ability to adapt to new contributions and above all has the ability to perform similar tasks of human beings, these tools can be divided into several phases, such as, for example, reactive tools, which have limited memory, those based on the doctrine of the mint and those that create self-awareness.[22,23]

Digital journalism

Digital journalism is a way of communicating and informing users through digital platforms, such as the Internet, radio, television, among others, which is characterized by keeping the audience updated, using technological means and multimedia that today provides the digital era.[16]

Legal Framework

Organic Law of Communication

Chapter II Communication Rights Title I.

Preliminary Provisions and Definitions.

Art 3. Communicational content: - For the purposes of this law, content shall be understood as any type of information or opinion produced, received, disseminated and exchanged through the media.[17]

Art 4. Personal content on the Internet: This Law does not regulate the information or opinion that in a personal way is emitted through the Internet. This provision does not exclude criminal or civil actions for infringements to other laws committed through the Internet. Note: article amended by article 3 of Law No. 0, published in Official Gazette Supplement 432 of February 20, 2019.[17]

Section I Freedom Rights:

Art 17. Right to freedom of thought and expression: for the development and application of this Law, every person has the right to freedom of thought and expression. This right includes the freedom to seek, receive and impart information orally, in writing or in printed or artistic form, or by any other means of his choice, and includes freedom from interference on account of his opinions. The right of expression may not be restricted by indirect ways or means, such as the abuse of official or private controls of paper, newspapers, radio frequencies, or equipment and apparatus used in the dissemination of information, or by any other means designed to impede the communication and circulation of ideas and opinions. Public spectacles may be subject by law to prior censorship for the sole purpose of regulating access to them for the protection of children and adolescents, without prejudice to the provisions of the second paragraph.

Any propaganda in favor of war and any advocacy of national, racial or religious hatred constituting incitement to violence or any other similar illegal action against any person or group of persons shall be prohibited. Note: article substituted by Article 10 of Law No. 0, published in Official Gazette Supplement 432 of February 20, 2019.[17]

Art 18. Prohibition of prior censorship. Prior censorship by an authority, public official, who in the exercise of his functions or in his capacity approves, disapproves or vetoes content prior to its dissemination through any

means of communication is prohibited. Note: article replaced by Article 11 of Law No. 0, published in Official Gazette Supplement 432 of February 20, 2019.[17]

Organic Law on Personal Data

Chapter VI.

Personal Data Security.

Art 23. Right to Digital Education: people have the right to access and availability of knowledge, learning, preparation, study, training, training, teaching and instruction related to the proper, healthy, constructive, safe and responsible use and management of information and communication technologies, in written compliance with human dignity and integrity; fundamental rights and individual freedoms with special emphasis on privacy, private life, informational self-determination, online identity and reputation, digital citizenship and the right to the protection of personal data, as well as to promote a culture sensitized in the right to protection of personal data.The right to digital education shall have an inclusive character especially with regard to people with special educational needs. The national education system, including the higher education system, shall guarantee digital education not only for students at all levels, but also for teachers, who must include this subject in their training process.[18]

Art 37. Security of personal data: the person responsible or in charge of the processing of personal data, as the case may be, shall be subject to the principle of security of personal data, for which purpose he/she shall take into account the categories and volume of personal data, the state of the art, best practices of integral security and the costs of application according to the nature, scope, context and purposes of the processing, as well as identify the likelihood of risks. The person responsible for or in charge of the processing of personal data shall implement a process of verification, evaluation and continuous and permanent assessment of the efficiency, efficacy and effectiveness of the technical, organizational and any other type of measures implemented with the purpose of guaranteeing and improving the security of the processing of personal data. The controller or processor of personal data shall demonstrate that the measures adopted and implemented adequately mitigate the identified risks. Among other measures, these may include the following; 1) Measures for anonymization, pseudonomization or encryption of personal data; 2) Measures aimed at maintaining the confidentiality, integrity and permanent availability of the systems and services of personal data processing and access to personal data, quickly in case of incidents; and 3) Measures aimed at improving the technical, physical, administrative, and legal residence. 4) Those responsible for and in charge of the processing of personal data will be able to rely on international standards for an adequate risk management focused on the protection of rights and freedoms, as well as for the implementation and management of information security systems or codes of conduct recognized and authorized by the Personal Data Protection Authority.[18]

Art 39. Protection of personal data by design and by default: data protection by design is understood as the duty of the controller to take into account, in the early stages of conception and design of the project, that certain types of processing of personal data entail a number of risks to the rights of data subjects in view of the state of the art, nature and purposes of the processing, for which it shall implement technical, organizational and any other measures, with a view to ensuring compliance with the obligations regarding data protection, under the terms of the regulation. Data protection by default refers to the fact that the controller must implement the appropriate technical and organizational measures with a view to ensuring that, by default, only the personal data that are necessary for each of the purposes of the processing are processed, under the terms of the regulation.[18]

CONCLUSIONS

The implementation of artificial intelligence in digital journalism represents a profound change in the academic and practical training of future journalists. Through the analysis developed in this research, it is evident that, although these tools offer significant advantages -such as task automation, content optimization and data analysis- they also pose ethical, technical and formative challenges that cannot be ignored. In the case of the students of the School of Social Communication (FACSO) of the University of Guayaquil, a growing technological dependence is identified which, although it boosts efficiency, may limit the development of critical skills inherent to journalistic practice, such as research, analytical criteria and original writing.

From an academic, methodological and practical approach, it is concluded that it is urgent to rethink the teaching and learning methods of digital journalism. An ethical, critical and conscious use of artificial intelligence, which complements -but does not replace- human capabilities, should be encouraged. In addition, it is imperative to ensure equitable access to these technologies within FACSO to avoid formative inequalities and strengthen competencies that respond to both the demands of the digital environment and the ethical principles of journalism. Only in this way will it be possible to train committed professionals, capable of taking advantage of technological innovation without losing sight of their social role and the responsibility to inform with veracity, independence and their own criteria.

BIBLIOGRAPHIC REFERENCES

1. Guerrero Troya NM. La inteligencia artificial en el periodismo de Cotopaxi. 2024. https://revista.consejodecomunicacion.gob.ec/index.php/rec/article/view/191/683

2. Gómez G. Perspectivas para abordar la inteligencia artificial en la enseñanza de periodismo. Una revisión de experiencias investigadoras y docentes. 2022. https://nuevaepoca.revistalatinacs.org/index.php/revista/article/view/1682/3582

3. García F. El Uso de la Inteligencia Artificial en la Producción de Contenidos por Estudiantes de Comunicación: Desafíos y Oportunidades. 2024. https://revista.consejodecomunicacion.gob.ec/index.php/rec/article/view/208/679

4. Calvo D, López G, Aguar J. Periodismo digital. 2024. https://espejodemonografias.comunicacionsocial.es/article/view/7185/7787

5. Caballero E. Jürgen Habermas y su teoria de la accion comunicacional. 2020. https://eduardocaballeroardila.wordpress.com/wp-content/uploads/2020/04/jc3bcrgen-habermas-y-su-teorc3ada-de-la-accic3b3n-comunicacional-.pdf

6. Jongitud J. Teorías éticas contemporáneas. 2021. http://www.rtfd.es/numero5/3-5.pdf

7. Blanco B. Los fundamentos de la ética: Aristóteles. 2020. https://www.nuevarevista.net/los-fundamentos-de-la-etica-aristoteles/

8. Mucha A. Teoría de la educación. 2022. https://www.researchgate.net/publication/361292328_TEORIA_DE_LA_EDUCACION

9. Mollán A. Capítulo III. Pensamiento pedagógico de Spencer Durkheim. 2019. https://1library.co/article/pensamiento-pedag%C3%B3gico-de-herbert-spencer.y8gl9855

10. Toscano J, Loza E, Franco A. La transformación digital en el turismo: un modelo desde la construcción social de la tecnología (SCOT). 2023. https://revistas.pucp.edu.pe/index.php/360gestion/article/view/27190/25898

11. Cavalli A, Carrozza T. Dicotomía Naturaleza – Tecnología: diálogo entre el Constructivismo Social de la Tecnología y la Ecología Política Latinoamericana. 2019. https://www.researchgate.net/publication/333636062_Dicotomia_Naturaleza_-_Tecnologia_dialogo_entre_el_Constructivismo_Social_de_la_Tecnologia_y_la_Ecologia_Politica_Latinoamericana

12. Vállez M, Codina L. Periodismo computacional: Evolución, Casos y Herramientas. 2019. https://revista.profesionaldelainformacion.com/index.php/EPI/article/view/epi.2018.jul.05/40575

13. Álvaro M, Alba C. Características y competencias de la enseñanza del periodismo digital en el grado de Periodismo en las universidades públicas españolas. 2020. http://www.scielo.edu.uy/scielo.php?script=sci_arttext&pid=S0797-36912020000200061

14. Lopezosa C, Sorribes C, Codina L, Vállez M. Uso de la inteligencia artificial generativa en la formación de los periodistas: desafíos, usos y propuesta formativa. 2023. https://revista.profesionaldelainformacion.com/index.php/EPI/article/view/87356/63452

15. Mateos J, Arroyo R. Metodologías de investigación y usos de la inteligencia artificial aplicada al periodismo. 2024. http://www.comunicacionymetodos.com/index.php/cym/article/view/220/159

16. Carvajal A, Benítez K, Tusa F. Comunicación: Un enfoque desde la academia. 2023. https://repositorio.utmachala.edu.ec/bitstream/48000/22443/3/Periodismo%20digital%20local%20postpandemia%20%282%29.pdf

17. Ley Orgánica de Comunicación. 2020. https://www.telecomunicaciones.gob.ec/wp-content/uploads/2020/01/Ley-Organica-de-Comunicaci%C3%B3n.pdf

18. Ley Orgánica de Protección de Datos Personales. 2021. https://www.finanzaspopulares.gob.ec/wp-

content/uploads/2021/07/ley_organica_de_proteccion_de_datos_personales.pdf

19. Vizcaíno P, Maldonado I, Cedeño R. Metodología de la investigación científica: guía practica. 2023. https://ciencialatina.org/index.php/cienciala/article/view/7658/11619

20. López P, Martínez P, Oñate P. Agenda melding y teorías de la comunicación: la construcción de la imagen de los actores políticos en las redes sociales. 2020. file:///C:/Users/Usuario/Downloads/Dialnet-AgendaMeldingYTeoriasDeLaComunicacion-8288525.pdf

21. Ramos C. Los alcances de una investigación. 2020. https://cienciamerica.edu.ec/index.php/uti/article/view/336/621

22. Calle S. Diseños de investigación cualitativa y cuantitativa. 2023. https://ciencialatina.org/index.php/cienciala/article/view/7016/10657

23. Arispe C, Yangali J, Guerrero M, Lozada O, Acuña L, Arellano C. La investigación científica. 2020. https://repositorio.uide.edu.ec/bitstream/37000/4310/1/LA%20INVESTIGACI%C3%93N%20CIENT%C3%8DFICA.pdf

FINANCING

None.

CONFLICT OF INTEREST

None.

AUTHORSHIP CONTRIBUTION

Conceptualization: Hermin Samuel Vera Candelario, Héctor Córdova.
Data curation: Hermin Samuel Vera Candelario, Héctor Córdova.
Formal analysis: Hermin Samuel Vera Candelario, Héctor Córdova.
Research: Hermin Samuel Vera Candelario, Héctor Córdova.
Methodology: Hermin Samuel Vera Candelario, Héctor Córdova.
Project Management: Hermin Samuel Vera Candelario, Héctor Córdova.
Resources: Hermin Samuel Vera Candelario, Héctor Córdova.
Software: Hermin Samuel Vera Candelario, Héctor Córdova.
Supervision: Hermin Samuel Vera Candelario, Héctor Córdova.
Validation: Hermin Samuel Vera Candelario, Héctor Córdova.
Visualization: Hermin Samuel Vera Candelario, Héctor Córdova.
Writing - original draft: Hermin Samuel Vera Candelario, Héctor Córdova.
Writing - proofreading and editing: Hermin Samuel Vera Candelario, Héctor Córdova.