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Reported Transparency Practices in AI Use Among Journalism Professionals in Ecuador: Ethics, Self-Regulation, and Professional Challenges

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Abstract

Artificial intelligence (AI) is increasingly incorporated into journalistic work, raising questions concerning transparency, authorship, editorial responsibility, human verification, and organizational governance. This study examines reported transparency practices and professional perceptions concerning AI use among journalism professionals linked to media organizations and news-production environments in Ecuador. A mixed-methods design combined a non-probability online survey of 53 eligible professionals with seven semi-structured interviews involving six journalism professionals and one communication academic with professional experience in journalism. The quantitative component was analyzed descriptively, while the qualitative component was examined through a deductive and interpretive analysis structured around four predefined thematic domains. AI use was reported by 48 of the 53 survey participants (90.6%), with both instrumental and generative applications identified. Among applicable responses, 39.5% reported the existence of a specific AI-related deontological code, 59.2% reported having received instructions from superiors, and 29.3% reported an obligation to disclose AI use to audiences. Human verification was the most frequently selected component of proposed internal AI rules (79.2%). The interviews showed uneven levels of organizational formalization, including verbal instructions, emerging guidelines, and differing thresholds for disclosure, while consistently emphasizing human editorial judgment and responsibility. The findings indicate that transparency in AI-assisted journalism is multidimensional and unevenly institutionalized across the professional environments represented in the study. These results provide sample-bound evidence from Ecuador and should not be interpreted as a national estimate of media transparency.

Keywords: artificial intelligence; journalism; transparency; journalistic ethics; self-regulation; Ecuador

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1. Introduction

The incorporation of artificial intelligence (AI) into journalism has significantly reshaped the routines of news production, editing, verification, and content distribution. This process involves not only the adoption of new technological tools, but also a transformation of the professional criteria that have historically guided journalistic practice. Forja-Pena et al. (2024) state that journalism has moved from traditional formats toward digital environments in which artificial intelligence is increasingly involved in production, circulation,

and audience interaction processes. Sonni et al. (2024) warn that this transformation reconfigures the traditional roles of newsrooms and requires a revision of the ethical frameworks that regulate journalistic activity.

In this context, AI appears as a tool capable of optimizing operational tasks, automating routine processes, supporting writing, facilitating data verification, organizing large volumes of information, and personalizing content according to audience consumption habits. Calvo Rubio and Rojas Torrijos (2024) argue that the use of artificial intelligence in journalism must be assessed according to criteria of journalistic quality, since its incorporation does not in itself guarantee better professional standards. Parratt-Fernández et al. (2021) suggest that the application of AI to journalism has become the subject of increasing academic attention, especially due to its effects on automation, editorial innovation, and the redefinition of professional skills.

However, the adoption of automated tools also raises ethical dilemmas that challenge core journalistic principles such as truthfulness, editorial independence, transparency, authorship, and responsibility toward audiences. Okonkwo et al. (2024) warn about the risks associated with algorithmic bias, misinformation, and the erosion of public trust when generative systems are incorporated without clear accountability frameworks. Apablaza-Campos and Wilches Tinjacá (2024) argue that artificial intelligence imposes a double challenge on the media: addressing the ethical problems derived from automation while preserving the fundamental values of journalism.

In the Ecuadorian case, the incorporation of AI into journalism takes place within a heterogeneous media system composed of traditional press, television, and radio organizations; public, private, and community media; regional outlets; digital-native projects; and independent or alternative initiatives. This configuration reflects a broader Hispano-American media environment in which traditional media continue to occupy a central position, while digital-native media have emerged as relevant but unevenly consolidated actors (Rodríguez-Urra et al., 2023). In this sense, Ecuadorian journalism should not be understood as a homogeneous field, since the conditions under which AI tools are adopted vary according to the type of media organization, its editorial resources, professional routines, economic sustainability, and degree of institutionalization.

The Ecuadorian communication environment is also shaped by the Organic Law on Communication (Ley Orgánica de Comunicación, LOC), which provides a broader normative context for debates concerning media responsibility, professional duties, communication rights, and accountability (LOC, 2022). Within the scope of the present study, the relevance of this framework lies in the broader discussion of professional and editorial responsibility rather than in the direct regulation of specific AI-assisted journalistic practices. Accordingly, transparency in AI use is examined here primarily in relation to professional self-regulation, internal organizational guidance, disclosure practices, human verification, authorship, and editorial responsibility.

The diversity of media and professional environments is relevant to the present study because organizational conditions may influence how professionals experience AI-related guidance, verification practices, authorship criteria, and disclosure expectations. However, the study does not directly compare organizational capacities or media-system models. Media type is therefore treated as a descriptive characteristic of the surveyed sample, while organization-related findings are interpreted as participants' reported knowledge and experience within their professional environments. In Ecuador, this discussion is situated within a digital journalism environment marked by tensions involving innovation, sustainability, financial dependence, and institutional consolidation (Monedero-Morales, 2025).

Against this background, a gap emerges between technological availability, the broader normative and media environment in Ecuador, and the degree to which professional and

organizational guidance has developed to support the responsible use of AI in journalistic practice. Niño Romero and Borges (2025) point out that the adoption of automated technologies tends to be partial and is accompanied by ethical concerns and demands for greater critical training. Reyes-Hidalgo and Burgos Zambrano (2024) argue that artificial intelligence reconfigures traditional journalistic practices by transforming processes of data and information collection, analysis, and distribution. Consequently, the debate is not limited to whether AI is used in journalistic work, but also concerns how professionals report its incorporation into their routines, the editorial criteria associated with its use, the role of human supervision, and the transparency practices that accompany technological intervention.

One of the central problems in this discussion is transparency. When content has been produced, assisted, translated, summarized, edited, or verified through AI tools, it becomes necessary to determine whether such intervention should be disclosed to the public, cited as a source, included in an editorial note, or regulated through internal protocols. The absence of clear criteria may affect content traceability, generate doubts about authorship, and weaken editorial responsibility. Sonni et al. (2024) emphasize that the ethical dilemmas associated with AI depend not only on the technology used, but also on the professional and institutional decisions that regulate its incorporation into newsrooms.

Based on this scenario, this article examines how journalism professionals in Ecuador report practices related to transparency in the use of artificial intelligence, including disclosure, authorship, identification of AI systems, human verification, and internal organizational guidance. The study adopts a mixed-methods empirical strategy that integrates quantitative data on reported AI use, transparency-related practices, professional self-regulation, and internal organizational guidance with professional perspectives obtained through semi-structured interviews. This combination makes it possible to examine both the reported forms of AI incorporation into journalistic routines and the ethical, editorial, and training criteria that participants associate with its use across the professional environments represented in the study.

Consequently, the study is guided by the following research questions: How do journalism professionals in Ecuador report the use of artificial intelligence in their professional routines? How do participants report transparency-related practices concerning AI use, including disclosure to audiences, acknowledgment of AI assistance, identification of AI systems, authorship, human verification, and editorial responsibility? What ethical, organizational, and professional criteria do participants consider necessary for the responsible integration of AI into journalistic practice? To address these questions, the study combines descriptive survey data from journalists and professionals linked to media organizations and news-production environments with qualitative evidence from seven semi-structured interviews examining professional perspectives on transparency, authorship, editorial responsibility, human verification, and ethical training. The article therefore contributes to the discussion on journalistic ethics, professional self-regulation, internal editorial governance, and digital culture in Ecuador by examining transparency as a central dimension of accountability in AI-assisted journalistic practice.

2. Literature Review

2.1. AI, Ethics, and Transparency

The incorporation of artificial intelligence into journalism is part of a broader process of digital transformation that has modified news production, distribution, verification, and audience interaction. Forja-Pena et al. (2024) identify the increasing presence of AI across different stages of journalistic production, while Sonni et al. (2024) show that its adoption is reshaping newsroom roles and intensifying debates concerning misinformation, trans-

parency, and accountability. AI should therefore be understood not only as a technological innovation, but also as a form of mediation that can modify professional routines and editorial decision-making.

For analytical purposes, it is necessary to distinguish AI as a broad technological category from the different ways in which it is incorporated into journalistic work. Jungherr and Schroeder (2023) note that contemporary public debate often emphasizes highly visible generative systems, even though many current AI applications remain task-specific. This distinction is particularly relevant to journalism because different forms of AI intervention involve different degrees of editorial participation, professional risk, and ethical complexity.

In this study, three broad forms of intervention are considered. Instrumental AI refers to applications used to support routine or technical tasks such as transcription, translation, summarization, information retrieval, data organization, classification, and content recommendation. Automated journalism involves computational procedures that contribute to the production, processing, distribution, or recommendation of journalistic content, often through structured data and predefined systems. Generative AI refers to systems capable of producing or transforming text, headlines, images, audio, video, or other forms of synthetic content. Mondría Terol (2023) identifies several of these applications within contemporary newsroom routines, while Ufarte-Ruiz et al. (2023) show that more advanced forms of synthetic media intensify questions regarding human intervention, authorship, verification, and professional responsibility.

These distinctions are ethically relevant because not all AI applications intervene in journalistic production to the same extent. Transcription, translation, summarization, or data analysis may primarily affect efficiency, accuracy, documentation, and verification processes, whereas generative applications participate more directly in the production or transformation of publishable material. Simon (2025) stresses the need to preserve editorial standards when AI is incorporated into transcription and translation processes. Banafi (2024) similarly notes that AI-assisted transcription and translation can reduce routine workload, but that their outputs must be carefully reviewed for errors and that the services used should offer adequate data-protection guarantees. Sultan et al. (2024) emphasize that AI-assisted fact-checking and content production require continued human supervision and clear editorial criteria. Lopezosa et al. (2023) similarly argue that the responsible use of generative AI requires both technical competence and ethical preparation.

The incorporation of AI consequently entails changes in professional competencies as well as technological practices. Laroshenko (2024) describes hybrid production environments in which journalists and automated systems interact across newsroom processes, while Calvo Rubio and Rojas Torrijos (2024) argue that professional competence in AI should combine technological knowledge with journalistic quality criteria and deontological reflection. Niño Romero and Borges (2025) further indicate that AI adoption remains uneven and is accompanied by concerns regarding professional training and ethical responsibility. From this perspective, the significance of AI in journalism depends not only on which technologies are used, but also on the level of their intervention and the professional criteria governing their use.

2.2. Ethics, Transparency, and Editorial Responsibility

The expansion of artificial intelligence in journalism raises ethical questions involving truthfulness, responsibility, transparency, authorship, verification, and the protection of the public interest. Somorin and Ademola (2024) warn that editorial automation may reproduce or intensify bias when it is implemented without adequate ethical safeguards. Xie (2024) similarly argues that algorithmic systems can amplify social bias across news production, presentation, and distribution, and identifies human–machine collaboration as

a central safeguard. Sonni et al. (2024), in turn, identify accountability for AI-assisted or AI-generated content as one of the central challenges facing contemporary newsrooms.

Within this study, professional self-regulation and internal organizational governance are treated as related but distinct concepts. Professional self-regulation refers to deontological mechanisms developed within journalism, including codes of ethics, professional guidelines, and shared standards of responsible practice. Internal organizational governance refers to policies, editorial protocols, disclosure rules, training processes, supervisory practices, and accountability mechanisms established within media organizations. Olanipekun (2025) observes that general AI ethics frameworks often lack the specificity and enforceability required by journalistic practice, and argues that newsrooms need internal guidelines, regular ethics training, and pre-publication human review aligned with their own editorial standards. Professional ethical judgment may therefore operate in the absence of a dedicated organizational AI policy, while the existence of internal instructions does not necessarily indicate a consolidated organizational framework.

Transparency constitutes a central dimension of this ethical discussion. Somorin and Ademola (2024) associate the opacity of AI systems with challenges for accountability and public scrutiny, while Sonni et al. (2024) emphasize the difficulty of understanding how some automated systems generate their outputs. For the purposes of this study, transparency is understood as a multidimensional professional practice rather than as a single act of disclosure. Drawing on discussions of opacity, accountability, human oversight, and editorial responsibility (Somorin & Ademola, 2024; Sonni et al., 2024; Sultan et al., 2024), transparency is operationalized through eight interrelated dimensions: disclosure to audiences, identification of the AI system used, provenance and traceability of AI-assisted content, acknowledgment of AI assistance, attribution of authorship, editorial responsibility, human verification, and internal governance.

Disclosure refers to whether audiences are informed that AI has participated in the production process. Tool identification refers to whether the specific AI system involved is named. Provenance and traceability concern whether the origin and role of AI-assisted material can be reconstructed through labels, explanatory notes, or other documentation. Acknowledgment of AI assistance refers to the explicit recognition of partial applications such as translation, data management, or other support functions. Authorship concerns how participants identify or attribute the author of partially AI-generated content, whereas editorial responsibility concerns accountability for the final published material. Human verification refers to the review of AI-assisted outputs before publication, and internal governance encompasses codes, instructions, protocols, training, and organizational rules governing AI use.

These dimensions are analytically connected but are not equivalent. In particular, identifying or disclosing an AI system should not be conflated with citing an informational source. An AI tool may be acknowledged as part of the production process without constituting the evidentiary source of a journalistic claim. Similarly, the attribution of authorship to an AI tool in survey responses is interpreted in this study as a professional perception concerning technological participation and responsibility, not as recognition of AI as a legitimate author under journalistic or scholarly authorship standards.

Transparency also depends on verification, traceability, and clearly defined editorial responsibility. Sultan et al. (2024) emphasize the importance of identifying automated intervention, maintaining human supervision, and establishing responsibility for errors or bias, while Verma (2024) warns that excessive automation may weaken human intervention in content curation and editing. Authorship presents a related challenge because AI may participate in the production of texts, images, headlines, summaries, or translations without assuming professional accountability for the final content. Reinoso et al. (2025) associate

automation with challenges concerning authorship and verification, while Dávalos Matamoros and Pazmiño Avilés (2024) highlight tensions between automation and journalistic creativity. The ethical debate therefore extends beyond the use of particular technologies to the criteria through which their intervention is disclosed, verified, supervised, and institutionally governed.

2.3. Digital Culture and Ecuadorian Journalism

In Ecuador, the incorporation of artificial intelligence into journalism occurs within a media environment already shaped by digitalization, social platforms, changing production routines, and different levels of organizational capacity. Del Alcázar Ponce (2025) describes a highly active digital environment characterized by extensive Internet and smartphone use, although technological connectivity does not in itself determine how automated systems are professionally or ethically incorporated into journalism.

The available literature suggests that AI adoption in Ecuadorian journalism is uneven and connected to broader processes of technological adaptation. Reyes-Hidalgo and Burgos Zambrano (2024) describe transformations in information collection, analysis, and distribution associated with automated technologies, while Apablaza-Campos and Wilches Tinjacá (2024) identify the simultaneous challenge of technological innovation and preservation of professional journalistic values. Espinosa Baquero (2024) documents initial experiences involving editing, automation, data management, and content transformation in Ecuadorian media.

Research focused on the Ecuadorian context also identifies limitations in institutional guidance and professional preparation. Salinas Parra (2024) points to gaps in editorial policies and ethical guidelines, while Toro-Bravo et al. (2024), in their study of journalists in Cotopaxi, report an incipient adoption of ChatGPT and other generative tools that depends substantially on professional self-management. Taken together, these studies suggest that technological incorporation and organizational formalization do not necessarily advance at the same pace. This makes Ecuador a relevant context for examining how professionals report AI use, internal guidance, transparency practices, human oversight, and ethical criteria without assuming that such practices are uniform across the national media system.

2.4. Journalistic Routines, Professional Values, and AI-Mediated Change

Artificial intelligence enters a profession already structured by routines, professional values, editorial cultures, and organizational constraints. Moreno Mesa and Sánchez Decicco (2022) associate journalistic credibility with rigor, contrast, verification, and responsibility, while Montoro-Montarroso et al. (2023) emphasize verification as a foundational component of journalistic practice. AI should therefore be examined in relation to existing professional norms rather than as an isolated technological disruption.

Journalistic routines had already been transformed by digitalization before the recent expansion of generative AI. Mellado et al. (2023) show that professional role performance differs across online journalism, print, radio, and television, indicating that technological platforms and organizational environments shape journalistic practice. Salonen et al. (2023) further demonstrate that contemporary gatekeeping is increasingly influenced by audience data, platforms, algorithmic systems, and regulatory environments. AI consequently adds another layer of technological mediation to an already changing editorial ecosystem.

Within newsroom routines, AI may support recommendation, verification, automation, information processing, and content production. Mondría Terol (2023) shows that these applications affect newsroom dynamics and generate demand for professional profiles capable of connecting journalistic knowledge with computational skills. Ufarte-Ruiz et al. (2023) demonstrate that more advanced forms of synthetic media extend automation into

text, audio, video, and other forms of content production, increasing the importance of transparency, verification, professional training, and human responsibility.

Human judgment remains particularly relevant in verification processes. Montoro-Montarroso et al. (2023) conclude that although AI and machine learning may assist in the detection of disinformation, fully automated verification remains limited because journalistic verification requires contextual interpretation and human oversight. Lopezosa et al. (2023) similarly argue that professional preparation for generative AI must include ethical and critical competencies in addition to technical knowledge.

AI adoption is also shaped by professional and organizational context. Based on interviews with Costa Rican journalists, Salas et al. (2023) show that perceptions of AI, algorithms, and digital technologies vary according to professional trajectories, newsroom cultures, organizational practices, and institutional capacities. This finding is particularly relevant to Latin American contexts, where technological adoption cannot be explained solely by access to tools. In a survey of 157 digital journalists from Peru, Argentina, Mexico, Colombia, and Costa Rica, Navarro Zamora (2023) similarly found limited organizational adoption of AI, largely self-taught individual use of freely available tools, scarce training opportunities, and the absence of a formal legal framework, leaving responsible use dependent mainly on professional self-regulation. Taken together, the literature indicates that AI modifies journalistic routines and the conditions under which verification, accuracy, transparency, authorship, and editorial responsibility are exercised. Its incorporation must therefore be understood in relation to newsroom culture, organizational governance, human oversight, and professional standards rather than as a simple substitution of human journalistic work.

2.5. State of the Question

Research on artificial intelligence and journalism has progressively expanded from technological innovation and newsroom automation toward questions of professional quality, transparency, authorship, accountability, and organizational governance. Parratt-Fernández et al. (2021) systematize early research on AI applications in journalism, while Calvo Rubio and Rojas Torrijos (2024) emphasize journalistic quality criteria in AI use. Forja-Pena et al. (2024) and Sonni et al. (2024) address the ethical and organizational implications of AI adoption, and Lopezosa et al. (2024) examine its possibilities, limitations, and effects across different stages of newsroom production.

In Ecuador, research on AI and journalism remains comparatively underdeveloped. Codena Guallasamin (2025) examines ethical and deontological issues associated with AI use in journalism; Peñafiel Chuquián (2025) addresses the need for policies supporting responsible automated content production; Eras Sanchez (2025) identifies challenges related to regulation, editorial protocols, and professional training; and Gaibor Miranda et al. (2025) examine AI within Ecuadorian sports journalism and emphasize the relevance of technical and ethical competencies. Together with the studies discussed in Section 2.3, this literature points to recurring concerns involving technological adoption, professional preparation, transparency, and organizational guidance.

However, comparatively limited empirical evidence addresses these dimensions jointly from the perspective of journalism professionals working in Ecuador. In particular, further evidence is needed on how professionals report different forms of AI use, disclosure and acknowledgment practices, authorship and editorial responsibility, human verification, internal guidance, and the measures they consider necessary for responsible AI integration. The present study addresses this gap through an individual-level mixed-methods design that combines descriptive survey evidence with semi-structured interviews. Its purpose is not to estimate the transparency of Ecuadorian media organizations as a whole, but to

examine reported practices, perceptions, and professional criteria within the environments represented in the study.

3. Materials and Methods

3.1. Study Design and Approach

The study was developed using a mixed-methods approach with a descriptive and interpretive scope, aimed at examining reported practices and professional perceptions related to transparency in the use of artificial intelligence in journalistic work in Ecuador. The individual professional, rather than the media organization, constituted the primary unit of analysis. Accordingly, responses concerning organizational codes, internal instructions, disclosure requirements, and related practices were interpreted as participants' reports of their professional environments rather than as independently verified institutional policies.

The study followed a convergent mixed-methods design with temporally staggered but independent data collection and integration at the interpretation stage. Although the qualitative interviews were conducted before the survey, the two components were designed independently and addressed complementary dimensions of the same research problem. The qualitative findings were not used to construct, modify, or refine the survey instrument; therefore, the chronological order of data collection should not be interpreted as an exploratory sequential design. Instead, the two components were analyzed separately and subsequently brought together to examine convergence, complementarity, divergence, and contextual variation across the study findings.

The combination of quantitative and qualitative techniques made it possible to examine, on the one hand, the frequency and distribution of reported practices related to AI use, transparency, professional self-regulation, and internal organizational guidance and, on the other hand, professional perceptions of authorship, editorial responsibility, human verification, and ethical training.

The quantitative component identified descriptive patterns through a survey administered to journalists and professionals linked to media organizations and news-production environments. The qualitative component examined situated professional perspectives through semi-structured interviews. Both components addressed complementary dimensions of the research problem and were integrated at the interpretive stage to identify convergences, divergences, and contextual nuances.

The design did not seek to technically evaluate artificial intelligence systems or measure their algorithmic performance. Its purpose was to analyze how participants reported the incorporation of AI into their journalistic routines and the ethical, editorial, and organizational criteria that they perceived as guiding or limiting its use. In analytical terms, the study approached AI as a broad professional category that includes instrumental applications, automated processes, and generative tools. Instrumental applications refer to uses such as transcription, translation, summarization, data analysis, information retrieval, and content organization. Automated processes refer to the use of computational systems to support the production, classification, distribution, or recommendation of journalistic content. Generative tools refer to systems capable of producing or transforming text, images, audio, video, headlines, or other journalistic materials. This operational distinction made it possible to interpret the ethical implications of AI use according to the level of intervention of the tool in the editorial process.

3.2. Quantitative Phase: Survey

The quantitative phase was based on an online survey administered to journalists, communicators, and professionals linked to media organizations, newsrooms, or news-production environments in Ecuador. The primary inclusion criterion was the participant's

current involvement in journalistic practice or news-production processes. Participation was voluntary and required explicit informed consent before accessing the questionnaire. The individual professional constituted the primary unit of analysis; therefore, responses concerning organizational codes, instructions, disclosure practices, and related internal procedures were interpreted as participants' reported knowledge and experience within their professional environments rather than as independently verified institutional policies.

The survey was administered through Google Forms between 15 May and 15 June 2026. Participants were recruited through a non-probability convenience sampling strategy with a chain-referral component. Initial distribution relied on professional contacts within the media sector, journalistic associations, professional networks, direct contacts, and WhatsApp, while some professionals were also asked to redistribute the questionnaire among colleagues who met the eligibility criteria. No formal probabilistic sampling frame was constructed, and no quotas were established by media type, geographic location, sex, age, or other sociodemographic or professional characteristics. Because the questionnaire circulated through both direct contacts and professional redistribution networks, the total number of individuals who received or viewed the invitation was not systematically recorded; consequently, an invitation-based response rate cannot be calculated. Google Forms was configured to restrict submissions to one response per account/email address as the primary technical control against duplicate responses.

The original database contained 54 records. After verifying the eligibility criterion, one record was excluded because the respondent did not meet the requirement of current involvement with a media organization, newsroom, or news-production environment, resulting in a final quantitative sample of 53 valid cases. The survey collected an email/account identifier at the time of data collection for response management and duplicate-control purposes; therefore, the survey was not anonymous at the point of collection. Before statistical analysis, identifiable information was removed from the analytical dataset, and the records were de-identified. Variable names were standardized for IBM SPSS Statistics, version 25, categorical responses were recoded numerically, and multiple-response questions were transformed into separate dichotomous variables.

The questionnaire collected information on participants' current involvement in journalistic or news-production activities, type of media or professional environment, AI use, reported organizational instructions and codes, disclosure practices, attribution, authorship perceptions, human verification, and preferred governance measures. However, it did not systematically collect respondent role, years of professional experience, geographic region, employment status, media ownership, managerial responsibility, or the name of the media organization as dedicated analytical variables. Consequently, these characteristics cannot be reconstructed retrospectively, the number of unique organizations represented cannot be validly estimated, and it cannot be determined whether multiple participants belonged to the same outlet. These limitations are taken into account when interpreting all organization-related findings.

3.3. Qualitative Phase: Semi-Structured Interviews

The qualitative component consisted of seven semi-structured interviews with six journalism professionals and one communication academic with professional experience in journalism. Participants represented different professional roles and media environments, including television, print journalism, digital media, editorial work, investigative journalism, and academic practice. To reduce the risk of indirect identification, participants' names and specific organizational affiliations are not reported in the article. Instead, interviewees are identified through participant codes (P1–P7), accompanied by broad professional descriptors when relevant to the interpretation of the findings.

Participants were selected through purposive sampling and recruited through direct professional contacts. All seven interviews were conducted by the first author (C.R.H.). The selection sought to include professionals with experience in journalism, editorial work, media production or management, and communication education, as well as direct knowledge of the technological changes affecting journalistic practice. Recruitment through existing professional contacts meant that the interviewer had previous professional contact with the participants. This circumstance was considered when interpreting the qualitative material, particularly in relation to the possible influence of professional familiarity on the interview interaction.

All interviews were conducted in Spanish between January and February 2026 through virtual video calls and lasted approximately 30–45 min. Participation was voluntary, and participants were informed that they could decline to answer any question. With prior authorization, the interviews were audio-recorded for transcription and subsequent analysis. The semi-structured format followed four predefined thematic domains—digital practices and tools, ethical implications, credibility and transparency, and regulation and ethical training—while allowing follow-up questions when participants introduced issues considered relevant to the study.

No formal thematic saturation criterion was established to determine the number of interviews. Consequently, the qualitative component is understood as contextual and interpretive rather than exhaustive or representative of journalism professionals in Ecuador. The seven interviews provided perspectives from different professional roles and enabled the identification of recurrent and contrasting views concerning AI use, human oversight, transparency, editorial responsibility, organizational guidance, and ethical training.

The interviews preceded the survey chronologically. However, the qualitative findings were not used to construct or modify the questionnaire. The survey instrument was developed as a contextual adaptation and extension of the Spanish questionnaire developed by Fernández-Barrero and Serrano-Martín (2025), with authorization for its methodological use and adaptation from the original author. Therefore, the qualitative and quantitative components were collected at different stages of the study and were subsequently integrated during the interpretive analysis.

3.4. Data Collection Instruments

The study used two data collection instruments: a structured questionnaire for the quantitative phase and a semi-structured interview guide for the qualitative phase.

The structured questionnaire was developed as a contextual adaptation and extension of the survey instrument developed by Fernández-Barrero and Serrano-Martín (2025) for their study of AI use, transparency, and self-regulation among journalists in Spain. The original Spanish-language item wording was provided directly by María Ángeles Fernández-Barrero, who authorized its methodological use and adaptation for the Ecuadorian study. Because both the source instrument and the Ecuadorian version were administered in Spanish, no translation or back-translation procedure was required. The modifications were therefore contextual and operational rather than linguistic.

The core content of the source instrument was retained, including questions on AI use and types of tools, deontological codes, instructions from supervisors, the perceived need for internal rules, transparency measures, disclosure of AI use to audiences, acknowledgment of partial AI assistance, attribution practices, perceptions of authorship, identification of AI systems in fully AI-generated content, and preferred measures for ethical and transparent AI use. The Ecuadorian version added three preliminary items addressing informed consent, current involvement in journalism or news production, and type of media or professional environment. Several questions were also adjusted for contextual clarity and

operationalized as nominal, multiple-response, or open-ended variables for administration through Google Forms and subsequent descriptive analysis in SPSS.

The contextual adaptation and extension did not constitute the development of a psychometric scale or a composite transparency index. Rather, the questionnaire comprised conceptually related indicators addressing different dimensions of AI use, disclosure, acknowledgment, attribution, verification, authorship perceptions, and internal governance. The resulting instrument should therefore be understood as a contextual adaptation and extension rather than as a strict replication of the Spanish instrument. Correspondence with the source questionnaire is understood primarily in terms of thematic and content alignment rather than psychometric or full measurement equivalence.

Before administration, the contextually adapted and extended Ecuadorian questionnaire was informally reviewed by three academic staff members from the Faculty of Communication, Humanities, and Creativity at Universidad ECOTEC: the faculty academic coordinator, the coordinator of the Journalism and Communication programs, and the academic lead of the Communication faculty team. The review focused on the contextual clarity, relevance, and comprehensibility of the questionnaire for the Ecuadorian journalistic environment. This process was conducted verbally and did not involve a standardized expert-validation protocol, quantitative content-validity indices, or a written validation report. Accordingly, it is reported as an informal academic review rather than as formal instrument validation. No separate pilot study or cognitive-testing procedure was conducted before field administration.

The complete questionnaire administered to participants in Ecuador is provided in its original Spanish-language version, together with an English translation, as Supplementary S2, while an item-by-item comparison between the source Spanish questionnaire and the Ecuadorian contextual adaptation and extension is provided in Supplementary S1. Supplementary S2 reproduces the instrument as administered through Google Forms, preserving the original item wording, response options, question order, and participant instructions. No retrospective modifications were introduced into the Supplementary Version.

The questionnaire incorporated automated branching logic in Google Forms for informed consent. Participants who did not provide consent were automatically directed to the end of the form and did not proceed to the study questions. For organizational questions that were not applicable to all respondents, a "Not applicable" response option was provided where appropriate.

The semi-structured interview guide was organized around four thematic domains defined on the basis of the study objectives and theoretical review: digital practices and tools, ethical implications, credibility and transparency, and regulation and ethical training. These domains guided the interviews while allowing participants to elaborate on their professional experiences and perspectives. The questions addressed AI tools used in journalistic practice, perceived advantages and risks, ethical dilemmas, authorship and editorial responsibility, effects on credibility, mechanisms for transparency, the existence of deontological codes or internal guidelines, and perceived needs for ethical and professional training.

The complete semi-structured interview guide is provided as Supplementary S4. It includes the four thematic domains, the guiding questions, the closing questions, and the interview administration notes corresponding to the qualitative component of the study.

To make explicit the relationship between the conceptual framework and the empirical instruments, the study organized the questionnaire items and interview domains according to the operational dimensions of transparency defined in Section 2.2. As summarized in Table 1, RQ1 addresses the reported incorporation and forms of AI use in professional routines; RQ2 examines transparency-related practices through disclosure, acknowledg-

ment of AI assistance, tool identification, traceability, authorship perceptions, editorial responsibility, human verification, and internal governance; and RQ3 examines the ethical, organizational, and professional criteria that participants consider necessary for responsible AI use. This mapping does not imply that all dimensions were measured with the same level of depth, but rather makes explicit the analytical function of each survey item and qualitative domain within the study.

Table 1. Operational framework linking transparency dimensions, research questions, survey items, and qualitative interview domains.

Transparency Dimension	Operational Definition	Research Question	Survey Item(s)	Qualitative Interview Domain(s)
AI use and Intervention	Reported incorporation of AI into professional routines and the type of tools used	RQ1	"Have you used AI tools in your journalistic work?"; "If yes, what type of AI tools have you used in content production?"	Domain 1: tools used, perceived advantages/risks, and changes in production routines
Disclosure to audiences	Whether audiences are informed that AI has participated in content production	RQ2	"Are journalists in your media organization required to communicate the use of AI in their texts?"; "How is this communication carried out?"	Domain 3: mechanisms considered necessary to guarantee transparency
Tool identification	Whether the specific AI system involved is named or identified	RQ2	"When AI is used for the full production of content, is the AI system employed identified?"	Domains 2 and 3: responsibility and mechanisms of transparency
Provenance and traceability	Whether the role and origin of AI-assisted material can be reconstructed through labels, notes, or explicit identification	RQ2	"Is there a specific phrase used to communicate AI use?"; open-ended descriptions of how AI use is communicated	Domain 3: transparency mechanisms and communication of AI intervention
Acknowledgment of AI assistance	Whether partial AI involvement is recognized when AI supports rather than fully produces content	RQ2	"Is partial AI use identified and acknowledged, for example in translation?"; "Is AI use identified and acknowledged when used as assistance for data collection or data management?"	Domains 1 and 2: uses of AI and management of responsibility
Authorship attribution	Participants' perceptions of who is considered the author of partially AI-generated content	RQ2	"How does your media organization manage authorship, accuracy, and responsibility in content produced with AI assistance?"	Domain 2: "How does your media organization manage authorship, accuracy, and responsibility in content produced with AI assistance?"
Editorial responsibility and human verification	Whether final responsibility remains with human professionals and whether AI-assisted outputs should be verified before publication	RQ2/RQ3	Items on mandatory human verification, editorial responsibility, criteria on authorship, supervision by editors, and proposed internal rules	Domain 2: ethical dilemmas, responsibility, bias and misinformation; closing recommendations

Table 1. *Cont.*

Transparency Dimension	Operational Definition	Research Question	Survey Item(s)	Qualitative Interview Domain(s)
Internal governance and self-regulation	Reported existence or perceived need for organizational codes, instructions, protocols, training, and rules	RQ2/RQ3	"Does the media organization in which you work have a deontological code on AI use?"; "Have you received instructions from your superiors on AI use?"; "Do media organizations need internal rules?"; items on components of such rules and necessary changes	Domain 4: existence of guidelines/codes, ethical training, and needed professional preparation
Preferred transparency and governance criteria	Measures participants consider necessary for ethical and transparent AI use	RQ3	"What measures should be taken to improve transparency in the use of AI in journalism?"; "What changes are necessary to ensure ethical and transparent AI use?"; "How can journalism be transparent in its use of AI?"	Domains 3 and 4; closing recommendation

Note: Consent, current professional involvement, and media-type items were used as screening or descriptive variables and were not treated as indicators of transparency. Qualitative interview domains: Domain 1 = digital practices and tools; Domain 2 = ethical implications; Domain 3 = credibility and transparency; Domain 4 = regulation and ethical training (see Supplementary S4).

3.5. Analysis Procedure

At the quantitative level, the cleaned survey database was processed using IBM SPSS Statistics, version 25. Descriptive statistics were used to calculate absolute frequencies and percentages. For multiple-response questions, each response option was coded as a separate dichotomous variable, and percentages were calculated using the relevant eligible cases as the denominator. Responses entered through the "Other" option in the multiple-response items were not included in the quantitative category-frequency analyses reported in this article. Open-text responses were excluded from the de-identified public dataset because they were not required to reproduce the reported quantitative tables and could increase the risk of indirect identification.

For four multiple-response items, participants were instructed to select up to three options. The selection limit was communicated through the questionnaire instructions, while the response format allowed participants to record more than three selections. The exported dataset showed that this occurred in a subset of cases. Because no principled retrospective criterion could determine which individual selections should be removed, all recorded selections were retained in the primary analysis. As a data-quality sensitivity check, each multiple-response item was reanalyzed after excluding respondents who exceeded the three-selection instruction for that specific item. This occurred in 12 of 48 eligible AI users (25.0%) for the AI-application item, 14 of 53 participants (26.4%) for the internal-rule-components item, 12 of 53 participants (22.6%) for the transparency-measures item, and 12 of 53 participants (22.6%) for the broader ethical-and-governance-changes item. The compliance-restricted results were compared with the primary analysis to assess whether the relative ordering or prominence of response categories changed.

Response applicability was treated separately from ordinary missingness. The closed-ended organizational and transparency items were mandatory in Google Forms and, where appropriate, included an explicit "Not applicable" response option. Consequently, "Not applicable" responses were retained as a distinct analytical category and were not recoded as

"No" or combined with missing responses. No separate "Does not know" category was offered for these closed-ended items. Because respondent role and managerial responsibility were not systematically collected, negative responses to organization-level items cannot distinguish between a verified absence of a policy or practice and incomplete respondent knowledge of the organization. Accordingly, organization-level "No" responses are interpreted as participants not reporting the existence of the corresponding policy or practice rather than as independently verified organizational absence. The primary percentages reported for substantive response categories were calculated using applicable valid responses as the denominator, while the number of respondents selecting "Not applicable" is reported separately. A sensitivity analysis was also conducted for selected organizational and transparency indicators by comparing applicable-case percentages with percentages calculated over the full quantitative sample (N = 53), while retaining "Not applicable" responses as a separate category. No inferential statistical tests were performed because of the non-probability sampling design, the sample size, and small cell counts in several variables.

To support reproducibility, the de-identified quantitative dataset used for the reported analyses is provided as Supplementary S5, the corresponding variable definitions and coding rules are documented in Supplementary S6, and the SPSS syntax required to reproduce the descriptive analyses and both sensitivity analyses is provided as Supplementary S7.

At the qualitative level, the audio recordings of the seven semi-structured interviews were transcribed with the assistance of the ElevenLabs Speech to Text service (Scribe model family; ElevenLabs, New York, NY, USA) between January and February 2026; the specific model version could not be retrieved retrospectively. The complete audio files were uploaded to a personal ElevenLabs account used exclusively by the first author (C.R.H.), who was the sole holder of the account credentials; the account was not shared with other members of the research team. Before upload, the files were identified using participant codes rather than participants' real names. The audio files were removed from the ElevenLabs account approximately three months after transcription, while the downloaded transcripts were retained in the first author's research files. The approved ethics documentation covered informed consent, anonymization, confidential storage, and secure handling of research data but did not specifically identify ElevenLabs or any other external transcription service. No separate subsequent ethics review of the transcription service was conducted. Before analysis, the first author reviewed each transcript against the corresponding audio recording to verify its correspondence with the original interview and corrected transcription errors where necessary.

The transcripts were organized according to the four predefined thematic domains of the interview guide: digital practices and tools, ethical implications, credibility and transparency, and regulation and ethical training. The qualitative analysis was conducted by the first author using a deductive and interpretive approach structured around these four a priori domains. Within each domain, participants' statements were compared across interviews to identify recurrent positions, differences in professional experience, contrasting perspectives, and relevant contextual nuances. Particular attention was given to statements concerning instrumental and generative uses of AI, human verification, authorship and editorial responsibility, disclosure practices, internal organizational guidance, and ethical training.

The analysis did not seek to quantify the interview material or to treat the predefined domains as a psychometric or frequency-based coding scheme. Instead, the purpose was to examine how participants interpreted and described these issues in their professional contexts. Cross-case comparison was also used to identify evidence that did not fully converge with the predominant patterns, thereby retaining divergent or qualifying perspectives rather than reducing the qualitative findings to consensus. Given the interviewer's prior professional familiarity with the participants, interpretive claims were grounded

in the interview transcripts and contrasted across cases to reduce reliance on contextual assumptions external to the recorded material.

Participants did not subsequently review the transcripts or quotations; therefore, no member-checking procedure was conducted. Quotations presented in Section 4 were translated from Spanish into English for publication and checked against the original Spanish transcripts to preserve their intended meaning. The analytical organization of the qualitative material across participants and thematic domains is documented in Supplementary S3, which presents the qualitative analysis matrix for participants P1–P7, including recurrent, contrasting, and qualifying perspectives.

3.6. Integration of Results

The quantitative and qualitative components were initially analyzed independently and were subsequently integrated at the interpretation stage. Although the interviews were conducted before the survey, this chronological sequence did not constitute an exploratory sequential design because the qualitative findings were not used to construct, modify, or refine the questionnaire. Instead, the two components addressed complementary dimensions of the same research problem and were merged after their respective analyses.

Integration involved systematically comparing the quantitative and qualitative findings according to the research questions and analytical dimensions of the study. Areas of convergence, complementarity, divergence, and qualitative variation were identified through cross-component comparison. To make this integration explicit, the principal findings are summarized in a joint display presented in Section 4, which relates quantitative patterns to qualitative interpretations without treating agreement between the two components as a statistical test. The integrated findings were subsequently interpreted in relation to the theoretical framework and the Ecuadorian journalistic context.

4. Results

The final quantitative sample consisted of 53 cases. All closed-ended items reported in the following tables were mandatory in the questionnaire; however, several organizational and transparency questions included a "Not applicable" response option. Accordingly, the applicable valid n varies across variables. Tables report the number of substantive valid responses and the number of "Not applicable" responses separately. Percentages for substantive response categories are calculated using applicable valid responses as the primary denominator, unless otherwise indicated.

The results are presented by integrating the quantitative evidence from the survey with the qualitative findings obtained through semi-structured interviews. The tables describe the patterns identified in the surveyed sample, while the interview findings provide complementary interpretive evidence concerning AI use, transparency, authorship, editorial responsibility, and ethical training. This integration captures both the distribution of reported practices and the meanings, tensions, and professional criteria associated with them.

4.1. Reported AI Use Among Surveyed Journalism Professionals

The final quantitative sample comprised 53 professionals currently involved in journalism or news-production activities. Most participants were linked to digital media, television, print media, or radio, while a small number reported freelance or independent work, news agency affiliation, or institutional communication. AI use was reported by 48 participants (90.6%), whereas five participants (9.4%) reported not using AI in their journalistic work (Table 2). These characteristics describe the professional environments represented in the sample and should not be interpreted as estimates of the distribution of Ecuadorian media organizations.

Table 2. Available characteristics of the quantitative sample and professional environment.

Characteristic	Category	*n*	%
Media or professional environment	Digital media	14	26.4
	Television	12	22.6
	Print media	12	22.6
	Radio	12	22.6
	Freelance/ independent	1	1.9
	News agency	1	1.9
	Communication Secretariat	1	1.9
Use of AI in journalistic work	Yes	48	90.6
	No	5	9.4

Note: Percentages are calculated using the final valid quantitative sample (N = 53). Current involvement in journalism or news production was applied as an eligibility criterion and is therefore not presented as a descriptive sample characteristic. The questionnaire did not systematically collect respondent role, years of professional experience, geographic region, employment status, media ownership, managerial responsibility, or organization name; consequently, these characteristics cannot be reported retrospectively.

In the primary analysis of participants who reported using AI (n = 48), transcription had the highest recorded frequency, followed by image generation and text generation (Table 3). In the compliance-restricted analysis (n = 36), image generation ranked slightly above transcription (38.9% vs. 36.1%), while text generation remained third (30.6%). Thus, the same three applications remained the most prominent, although their relative ordering was not fully stable across specifications. The results should therefore be interpreted primarily in terms of broad patterns of use rather than precise category rankings.

The survey distinguished several instrumental and generative applications of AI, but it did not include automated journalism based on structured data or rule-based news generation as a separate response category. Consequently, the prevalence of automated journalism cannot be estimated independently from these data. The distinction between instrumental, automated, and generative AI is therefore used as an analytical framework, while the quantitative results reported in Table 3 provide more direct evidence of instrumental and generative applications.

The interview material shows that these uses varied substantially in intensity and editorial scope. Several participants described AI primarily as an auxiliary resource for accelerating routine tasks, organizing information, transcribing interviews, analyzing documents, or preparing initial drafts. This position was expressed particularly clearly by P3, who emphasized that technological assistance should not replace the core practices of journalistic work: "AI tools should be understood as what they are: tools that can make the work easier, but cannot do the journalist's work" (P3, digital journalism professional). The statement was linked to the continued importance of verification, contextualization, source consultation, and journalistic investigation.

At the same time, the interviews revealed more direct generative uses in some professional settings, including text generation, image creation, narrative support, and visual reconstruction. These practices were not interpreted uniformly. Some participants accepted generative applications when accompanied by human review and editorial control, whereas others preserved specific editorial decisions as predominantly human tasks. For example, P4 noted that delegating headline generation to AI could create a risk of editorial standardization, stating that "otherwise, there is a risk of homogenizing headlines" (P4, digital-media editor).

Taken together, the quantitative and qualitative findings indicate that AI was widely incorporated into the professional routines represented in the sample, but its use was heterogeneous rather than uniform. Instrumental applications predominated as mechanisms for saving time, processing information, and supporting editorial workflows, while generative applications involved greater variation in acceptance and use. Across the interviews, human verification, editorial judgment, and professional responsibility remained central criteria for determining the acceptable role of AI in journalistic practice.

Table 3. AI tools used by participants.

AI Tool or Application	Primary Analysis *n*	Primary Analysis % (*n* = 48)	Compliance-Restricted *n*	Compliance-Restricted % (*n* = 36)
Transcription	25	52.1	13	36.1
Image generation	21	43.8	14	38.9
Text generation	19	39.6	11	30.6
Information summarization	17	35.4	8	22.2
Data analysis	14	29.2	6	16.7
Social media posts	14	29.2	8	22.2
Video editing	12	25.0	7	19.4
Style correction	12	25.0	6	16.7
Translation	11	22.9	7	19.4
Audio editing	9	18.8	3	8.3
Headline generation	9	18.8	4	11.1

Note: Multiple-response question. The primary analysis includes all participants who reported using AI in their journalistic work (*n* = 48). Participants were instructed to select up to three options. Twelve respondents recorded more than three selections. Because no principled retrospective criterion could determine which individual selections should be removed, all recorded selections were retained in the primary analysis. The compliance-restricted sensitivity analysis excludes these 12 cases and includes the 36 respondents who recorded no more than three selections. Percentages are calculated using the corresponding number of cases in each analysis as the denominator.

4.2. Reported Organizational Guidance and Self-Regulation

Reported organizational governance of AI showed different levels of formalization across the surveyed professional environments. Among the 43 applicable responses concerning the existence of a specific deontological code on AI, 26 participants (60.5%) did not report the existence of such a code in their professional environment, whereas 17 (39.5%) reported its existence (Table 4). Because no separate "Does not know" response option was provided, and respondent managerial responsibility was not systematically recorded, these responses represent participants' reported knowledge of their professional environments and should not be interpreted as independently verified organizational policies.

A different pattern emerged for internal instructions. Among the 49 applicable responses, 29 participants (59.2%) reported having received instructions from superiors concerning AI use, whereas 20 (40.8%) reported that they had not received such instructions (Table 5). The difference between Tables 4 and 5 indicates that the existence of instructions should not be treated as equivalent to the existence of a formal deontological code or comprehensive organizational policy.

This distinction was also evident in the interviews. Some participants described guidance that operated through informal or partially formalized mechanisms rather than through dedicated AI policies. P6, for example, reported that "there have been recommendations or guidelines communicated verbally and also by email [. . .], but these need to be formally established in a code of conduct or style guide" (P6, investigative journalist). Similarly, P3 described an environment in which behavioral boundaries were known and communicated in everyday professional practice despite the absence of a written AI-specific

framework: "There is no written deontological framework, but the rules are communicated and applied orally every day, so the team knows which boundaries should not be crossed" (P3, digital journalism professional).

Table 4. Reported existence of a specific deontological code on AI.

Response	*n*	% of Applicable Responses
No	26	60.5
Yes	17	39.5
Applicable valid *n*	43	100.0
Not applicable	10	-
Total asked	53	-

Note: The item was mandatory. "Not applicable" responses were retained separately and excluded from the primary percentage denominator. No ordinary missing responses were recorded for this item. The "No" category represents participants' reported knowledge and does not independently verify the absence of an organizational policy; no separate "Does not know" response option was available.

Table 5. Reported instructions from superiors on the use of AI.

Response	*n*	% of Applicable Responses
Yes	29	59.2
No	20	40.8
Applicable valid *n*	49	100.0
Not applicable	4	-
Total asked	53	-

Note: The item was mandatory. "Not applicable" responses were retained separately and excluded from the primary percentage denominator. No ordinary missing responses were recorded for this item.

The interviews also revealed cases in which more formal AI-specific guidance was still under development. P4 stated that an existing general code of ethics remained the normative foundation of professional practice, while specific provisions concerning artificial intelligence were still being constructed. These accounts qualify the survey findings by showing that organizational guidance may exist in different forms and degrees of formalization, ranging from professional judgment and verbal instructions to written recommendations, general ethical codes, and emerging AI-specific policies.

Against this background, all 53 survey participants considered internal rules for AI use necessary (Table 6). This result indicates a clear preference within the sample for stronger organizational guidance, although it does not establish the form that such governance should take in every professional environment.

Among the proposed components of internal AI rules, mandatory human verification had the highest recorded frequency in the primary analysis (79.2%), followed by transparency toward audiences (62.3%), editorial responsibility (60.4%), and training for journalists (50.9%). The compliance-restricted analysis produced a broadly similar pattern: human verification remained the most frequently selected component (74.4%), while editorial responsibility (59.0%) ranked slightly above transparency toward audiences (56.4%), followed by training for journalists (43.6%). Thus, human verification remained the most prominent preference, although the relative ordering and magnitude of some other categories varied when the analysis was restricted to respondents who complied with the three-selection instruction (Table 7).

Taken together, the quantitative and qualitative findings indicate a distinction between the presence of some form of guidance and the existence of a consolidated institutional framework. Within the professional environments represented in the study, participants

reported a combination of formal, informal, and developing mechanisms for governing AI use. The findings therefore point not to a uniform absence of organizational governance, but to uneven levels of institutionalization in which instructions, professional judgment, general ethical standards, and emerging AI-specific rules coexist.

Table 6. Participant-perceived need for internal rules on AI.

Need for Internal Rules	*n*	%
Yes	53	100.0
Total	53	100.0

Table 7. Participant-preferred components of internal AI rules: primary and compliance-restricted analyses.

Proposed Component	Primary Analysis *n*	Primary Analysis % (*N* = 53)	Compliance-Restricted *n*	Compliance-Restricted % (*n* = 39)
Mandatory human verification	42	79.2	29	74.4
Transparency toward audiences	33	62.3	22	56.4
Editorial responsibility	32	60.4	23	59.0
Training for journalists	27	50.9	17	43.6
Authorship criteria	18	34.0	11	28.2
Use of AI in text writing	12	22.6	2	5.1
Bias prevention	10	18.9	4	10.3
Use of AI in data collection or management	9	17.0	1	2.6
Protection of personal data	9	17.0	3	7.7
Supervision by editors or media managers	9	17.0	2	5.1
Use of AI in images, audio, or video	7	13.2	1	2.6
Use of AI in translation	3	5.7	0	0.0

Note: Multiple-response question. The primary analysis includes the final quantitative sample (*N* = 53). Participants were instructed to select up to three options. Fourteen participants recorded more than three selections. Because no principled retrospective criterion could determine which individual selections should be removed, all recorded selections were retained in the primary analysis. The compliance-restricted sensitivity analysis excludes these 14 cases and includes the 39 participants who recorded no more than three selections. Percentages are calculated using the corresponding number of cases in each analysis as the denominator.

4.3. Reported Transparency and Authorship Practices

Reported disclosure practices varied across the professional environments represented in the survey. Among the 41 applicable responses concerning whether journalists were required to disclose AI use to audiences, 29 participants (70.7%) did not report the existence of such a requirement, whereas 12 (29.3%) reported that disclosure was required (Table 8). As with the organizational-governance items, these responses reflect participants' reported experience and knowledge of their professional environments rather than independently verified organizational disclosure policies.

Acknowledgment of partial AI use was also not frequently reported. In the case of translation, among the 38 applicable responses, 23 participants (60.5%) reported that AI use was not acknowledged in their professional environment, whereas 15 (39.5%) reported that it was acknowledged. Similarly, for data collection or data management, 22 of the 38 applicable responses (57.9%) reported that AI use was not acknowledged, while 16 (42.1%) reported that it was (Table 9).

Table 8. Reported obligation to disclose AI use to audiences.

Obligation to Disclose AI Use	*n*	Valid %
No	29	70.7
Yes	12	29.3
Applicable valid *n*	41	100.0
Not applicable	12	-
Total asked	53	-

Note: The "No" category reflects participants' reported knowledge of their professional environment and should not be interpreted as independent verification that no organizational disclosure requirement existed. No separate "Does not know" response option was provided.

Table 9. Recognition of partial AI use.

Type of Partial Use	Yes, *n* (%)	No, *n* (%)	Applicable *n*	Not Applicable *n*	Total Asked
Translation	15 (39.5)	23 (60.5)	38	15	53
Data collection or data management	16 (42.1)	22 (57.9)	38	15	53

Note: Percentages are calculated using applicable responses for each item. "Not applicable" responses were retained separately and were not treated as negative responses. The "No" category reflects participants' reported knowledge of their professional environment and should not be interpreted as independent verification of organizational practice. No separate "Does not know" response option was provided.

The interviews provide additional context by showing that disclosure practices were not understood uniformly. P2 described an explicit disclosure practice in which audiences were informed when AI had participated in content production: "The first thing is to tell the reader that artificial intelligence is being used. Transparency and responsibility come first" (P2, print-media editor). The same participant described the use of explicit AI identification in articles, image captions, and credits, illustrating a case in which disclosure had already been incorporated into editorial practice.

Other accounts introduced a more conditional understanding of disclosure. P1 distinguished between AI interventions that directly create or substantially modify journalistic content and more limited technological assistance. In this view, substantive AI intervention should be explicitly communicated to audiences, whereas minor technical modifications may not necessarily require the same degree of disclosure. This contrast suggests that transparency was not interpreted simply as a binary decision to disclose or not disclose AI use, but also as a question of the type and extent of technological intervention.

Participants also reported different practices concerning whether AI was cited or acknowledged as a source. This item is interpreted as a measure of respondents' perceptions of attribution practices rather than as an assumption that an AI system constitutes an informational source equivalent to a human source, document, or primary evidence. Among the 42 applicable responses, 23 participants (54.8%) reported that AI was not cited as a source, 11 (26.2%) reported that it was cited only in some cases, and eight (19.0%) reported that it was cited (Table 10).

Authorship in partially AI-generated content showed similarly dispersed perceptions. Among the 37 applicable responses, 13 participants (35.1%) attributed authorship to the journalist, nine (24.3%) considered that authorship depended on the level of AI intervention, six (16.2%) attributed authorship to the AI tool, five (13.5%) to the media organization, and four (10.8%) proposed shared authorship between the journalist and the media organization (Table 11). These response categories are interpreted as participants'

perceptions of authorship and should not be understood as normative, professional, or legal determinations of authorship status.

Table 10. Reported AI-as-source attribution practices.

Criterion on AI Citation	*n*	Valid %
No	23	54.8
Only in some cases	11	26.2
Yes	8	19.0
Applicable valid n	42	100.0
Not applicable	11	-
Total asked	53	-

Table 11. Participants' perceptions of authorship in texts partially generated with AI.

Authorship Criterion	*n*	Valid %
The journalist	13	35.1
It depends on the level of AI intervention	9	24.3
The AI tool	6	16.2
The media organization	5	13.5
Shared authorship between journalist and media organization	4	10.8
Applicable valid *n*	37	100.0
Not applicable	16	-
Total asked	53	-

Note: Response categories represent participants' perceptions of authorship and should not be interpreted as normative, professional, or legal determinations of authorship status.

The qualitative material helps contextualize this dispersion by distinguishing technological participation from final editorial responsibility. Although participants described AI involvement at different stages of production, the interviews repeatedly located verification, editorial judgment, and accountability with human professionals. The interviews therefore suggest that acknowledgment of technological intervention and attribution of editorial responsibility operate as related but distinct dimensions of transparency.

Reports concerning the identification of the specific AI system used in fully AI-produced content also varied. Among the 35 applicable responses, 21 participants (60.0%) reported that the AI system was not identified in their professional environment, whereas 14 (40.0%) reported that it was identified (Table 12). The relatively high number of "Not applicable" responses for this item (n = 18) also indicates that this question did not correspond to the professional experience of a substantial part of the sample.

To examine whether the treatment of non-applicable responses affected the interpretation of the main organizational and transparency indicators, a sensitivity analysis compared percentages based on applicable responses with percentages calculated using the complete quantitative sample (N = 53) as the denominator while retaining "Not applicable" as a separate category (Table 13).

The sensitivity analysis produced a broadly similar directional pattern across the two denominator specifications, although the magnitude of the affirmative percentages was sensitive to denominator choice. Affirmative responses remained below 50% under both specifications for specific AI deontological codes, disclosure obligations, acknowledgment of partial AI use, and identification of the AI system used. Reported instructions from superiors were the excep-

tion, with affirmative responses remaining above 50% under both denominator specifications. Affirmative percentages were lower when the full quantitative sample (N = 53) was used as the denominator, with the largest reductions observed for identification of the AI system in fully AI-produced content (−13.6 percentage points), acknowledgment of AI use in data collection or management (−11.9 percentage points), and acknowledgment of AI use in translation (−11.2 percentage points). This comparison underscores the analytical importance of distinguishing substantive negative responses from non-applicability and of recognizing that percentage magnitudes depend on the denominator used.

Table 12. Reported identification of the AI system in fully AI-produced content.

Identification of the AI System	*n*	Valid %
No	21	60.0
Yes	14	40.0
Applicable valid *n*	35	100.0
Not applicable	18	-
Total asked	53	-

Note: Percentages are calculated using applicable responses for this item. "Not applicable" responses were retained separately and were not treated as negative responses. The "No" category reflects participants' reported knowledge of their professional environment and should not be interpreted as independent verification of organizational practice. No separate "Does not know" response option was provided.

Taken together, the findings show heterogeneous transparency practices within the professional environments represented in the study. Disclosure, acknowledgment of partial AI assistance, attribution, authorship perceptions, and identification of AI systems do not constitute a single practice and were not reported with the same degree of formalization. The interviews further show that professionals differ regarding the threshold at which AI intervention should become visible to audiences. Transparency therefore emerges in the data as a multidimensional practice shaped by the type and extent of AI intervention, editorial responsibility, human verification, and the degree of organizational formalization.

Table 13. Sensitivity analysis of selected organizational and transparency indicators using alternative denominators.

Indicator	Yes, *n*	Applicable *n*	Yes, % of Applicable Cases	Yes, % of Total Sample (N = 53)	Difference
Specific AI deontological code	17	43	39.5	32.1	−7.4 pp
Instructions from superiors	29	49	59.2	54.7	−4.5 pp
Obligation to disclose AI use	12	41	29.3	22.6	−6.7 pp
Recognition of AI use in translation	15	38	39.5	28.3	−11.2 pp
Recognition of AI use in data collection or management	16	38	42.1	30.2	−11.9 pp
Identification of AI system in full AI production	14	35	40.0	26.4	−13.6 pp

Note: Applicable-case percentages exclude responses categorized as "Not applicable." Full-sample percentages use N = 53 as the denominator while retaining "Not applicable" responses as a distinct category. "Not applicable" responses were not recoded as negative responses. Difference is expressed in percentage points (pp) and represents the full-sample percentage minus the applicable-case percentage.

4.4. Participant-Preferred Measures for Transparency and Responsible AI Use

The survey included two related but analytically distinct multiple-response items concerning participants' preferred criteria for AI governance. The first asked which measures should be adopted specifically to improve transparency in the journalistic use of AI, whereas the second addressed broader changes considered necessary to ensure ethical and transparent AI use. The results are presented jointly in Table 14 to distinguish these two constructs while avoiding unnecessary repetition.

Regarding transparency-specific measures, training journalists and editors had the highest recorded frequency in the primary analysis (71.7%), followed by informing audiences when AI is used (62.3%), requiring human review before publication (47.2%), and using visible labels in content (39.6%). The compliance-restricted analysis produced the same ordering among these four leading measures, with corresponding percentages of 70.7%, 56.1%, 39.0%, and 34.1%. Although the magnitude of several estimates decreased, the principal transparency-related preferences remained similar across the two specifications (Table 14, Panel A).

The broader item on ethical and transparent AI use produced a related but not identical pattern. In the primary analysis, training journalists in the ethical use of AI and creating specific deontological codes were equally the most frequently selected changes (77.4% each), followed by establishing internal protocols in media organizations (56.6%). In the compliance-restricted analysis, specific deontological codes ranked slightly above ethical AI training (75.6% vs. 70.7%), while internal protocols remained third (48.8%). Thus, the same three measures remained the most prominent, although their relative ordering and magnitude varied under the restricted specification. These results represent participants' preferred measures and should not be interpreted as normative prescriptions established by the study.

The interviews contextualized these preferences by showing that training was understood not only as technical instruction but also as preparation for ethical judgment and critical use. P7 emphasized the need to incorporate AI more broadly into journalism and communication education, stating that "artificial intelligence should be incorporated across university courses [. . .] there should be spaces for exploration" (P7, communication academic with journalism experience). This perspective places AI literacy within broader professional formation rather than treating it as an isolated technological competency.

At the same time, the interviews showed that preferences for governance did not imply a uniform demand for restrictive regulation. P6 distinguished between punitive control and the establishment of professional guidance, arguing that "there should be regulation, but not a punitive one; rather, it should provide clear guidelines for the use of artificial intelligence" (P6, investigative journalist). P7 similarly emphasized ethical judgment, educational quality, and professional protocols rather than assuming that a formal regulatory document would necessarily resolve the challenges associated with AI use.

Taken together, the primary and compliance-restricted analyses indicate a broadly similar pattern of participant preferences, particularly around professional training, audience transparency, human verification, deontological guidance, and organizational protocols. However, the magnitude of several estimates and the relative ordering of some response categories varied when the analysis was restricted to respondents who complied with the three-selection instruction. The qualitative findings further show variation in how such governance should be formalized. These findings therefore describe participant-preferred criteria for responsible AI use rather than prescribing a single regulatory model for journalism in Ecuador.

To make the mixed-methods integration explicit, Table 15 presents a joint display comparing the principal quantitative and qualitative findings across the analytical dimensions of the study. The display distinguishes convergence, complementarity, and qualitative variation between the two components and summarizes the integrated interpretation derived from their comparison.

Table 14. Participant-preferred measures for transparency and responsible AI use: primary and compliance-restricted analyses.

Proposed Measure	Primary Analysis *n*	Primary Analysis % (*N* = 53)	Compliance-Restricted *n*	Compliance-Restricted % (*n* = 41)
Panel A. Measures to improve transparency in AI use				
Train journalists and editors	38	71.7	29	70.7
Inform audiences when AI is used	33	62.3	23	56.1
Require human review before publication	25	47.2	16	39.0
Visible labels in content	21	39.6	14	34.1
Internal rules	18	34.0	12	29.3
Editorial policy on AI	16	30.2	9	22.0
Define authorship/ responsibility criteria	14	26.4	10	24.4
Include an explanatory note in the content	10	18.9	3	7.3
Identify the AI system used	7	13.2	3	7.3
Panel B. Changes considered necessary for ethical and transparent AI use				
Train journalists in the ethical use of AI	41	77.4	29	70.7
Create specific deontological codes on AI	41	77.4	31	75.6
Establish internal protocols in media organizations	30	56.6	20	48.8
Inform audiences when AI is used	19	35.8	12	29.3
Require human verification before publication	18	34.0	8	19.5
Define editorial responsibilities	15	28.3	7	17.1
Regulate AI use in images, audio, and video	14	26.4	8	19.5
Define authorship criteria	7	13.2	1	2.4
Strengthen editorial supervision	7	13.2	3	7.3
Identify the AI system used	5	9.4	0	0.0

Note: Both panels correspond to separate multiple-response survey items. Panel A refers to measures participants considered appropriate for improving transparency in the journalistic use of AI, whereas Panel B refers to broader changes considered necessary for ethical and transparent AI use. The primary analyses use the final quantitative sample (*N* = 53) as the denominator. Participants were instructed to select up to three options. In each item, 12 participants recorded more than three selections. Because no principled retrospective criterion could determine which individual selections should be removed, all recorded selections were retained in the primary analyses. The compliance-restricted sensitivity analyses exclude these 12 cases separately for each item and therefore include 41 participants. Percentages are calculated using the corresponding number of cases in each analysis as the denominator.

Table 15. Joint display integrating quantitative and qualitative findings.

Analytical Dimension	Quantitative Finding	Qualitative Finding	Relationship Between Components	Integrated Interpretation
AI use and scope of intervention (RQ1)	AI use was reported by 48 of 53 participants (90.6%). In the primary analysis, the leading applications were transcription (52.1%), image generation (43.8%), and text generation (39.6%). In the compliance-restricted analysis (n = 36), image generation (38.9%) ranked slightly above transcription (36.1%), while text generation remained third (30.6%).	Participants described AI both as an instrumental support resource for transcription, organization, analysis, and drafting and, in some professional settings, as a tool for direct text or image generation. Several interviewees emphasized that editorial judgment should remain human.	Convergence with complementarity	AI use was common among surveyed participants, but its role was heterogeneous. The qualitative evidence clarifies that similar adoption levels can involve substantially different degrees of technological intervention in journalistic work.
Organizational governance and self-regulation (RQ2/RQ3)	A specific AI deontological code was reported by 17 of 43 applicable respondents (39.5%), whereas 29 of 49 applicable respondents (59.2%) reported having received instructions from superiors. All 53 participants considered internal rules necessary.	Participants described different forms of guidance, including verbal instructions, email recommendations, general ethical standards, and AI-specific provisions still under development.	Complementarity; apparent discrepancy explained	Receiving instructions is not equivalent to the existence of a consolidated AI-specific institutional policy. The two components indicate uneven levels of formalization rather than a uniform absence of governance.
Disclosure, acknowledgment, and AI identification (RQ2)	Disclosure of AI use to audiences was reported as required by 12 of 41 applicable respondents (29.3%). Acknowledgment of AI assistance was reported by 15 of 38 applicable respondents for translation (39.5%) and 16 of 38 applicable respondents for data collection or management (42.1%). Identification of the AI system in fully AI-produced content was reported by 14 of 35 respondents (40.0%).	Some participants described explicit disclosure and labeling practices, whereas others considered disclosure dependent on the type or degree of AI intervention.	Qualitative variation within the quantitative pattern	Disclosure was not reported as a generalized practice in the surveyed sample, but the interviews show that transparency practices and disclosure thresholds vary across professional contexts. Transparency therefore cannot be reduced to a single binary practice.
Authorship and editorial responsibility (RQ2)	Among 37 applicable responses, authorship was attributed to the journalist by 35.1%, while 24.3% considered that it depended on the level of AI intervention; smaller proportions attributed authorship to the AI tool, media organization, or shared arrangements.	Interviewees distinguished technological participation from final professional responsibility and repeatedly emphasized the continued role of human editorial judgment and accountability.	Complementarity	Perceptions of authorship were dispersed, whereas responsibility was more consistently described in the interviews as remaining with human professionals. Authorship attribution and editorial accountability therefore operate as related but distinct dimensions.

Table 15. *Cont.*

Analytical Dimension	Quantitative Finding	Qualitative Finding	Relationship Between Components	Integrated Interpretation
Human verification (RQ2/RQ3)	Mandatory human verification was the most frequently selected component of internal AI rules in both the primary analysis (42 of 53; 79.2%) and the compliance-restricted analysis (29 of 39; 74.4%).	Interviewees repeatedly emphasized source checking, rereading, editorial review, and additional verification because AI outputs may contain errors, hallucinations, or contextual inaccuracies.	Convergence	Both components identify human verification as a central criterion for acceptable AI-assisted journalistic practice within the study sample.
Training and preferred governance measures (RQ3)	In the primary analysis, training journalists and editors was selected by 71.7% as a measure to improve transparency. In the compliance-restricted analysis, it remained the leading transparency-specific measure (70.7%). For broader ethical and transparent AI use, ethical training and specific deontological codes were each selected by 77.4% in the primary analysis; in the restricted analysis, deontological codes (75.6%) ranked slightly above ethical training (70.7%), while internal protocols remained among the leading preferences (48.8%).	Participants emphasized ethical and critical preparation as well as technical competence. However, views differed regarding the degree and form of formal regulation; some favored clear guidelines without punitive regulation, while others emphasized education and professional judgment.	Convergence with qualitative qualification	Participants showed strong support for training and organizational guidance, but the interviews indicate that this preference does not translate into support for a single regulatory model. The preferred approach combines professional preparation, ethical criteria, and organizational guidance.

Note: Quantitative percentages for variables containing a "Not applicable" option are calculated using applicable responses as the primary denominator. Percentages for multiple-response items are based on the relevant eligible cases; percentages for AI applications use participants who reported AI use (n = 48). Qualitative findings summarize patterns and contrasting perspectives identified across the seven interviews and should not be interpreted as frequency estimates. The relationship categories describe the mixed-methods integration of the two components and do not represent statistical tests of agreement. For multiple-response items subject to the three-selection instruction, compliance-restricted sensitivity results are reported in Tables 3, 7 and 14 and are incorporated into the interpretation where relevant.

The joint display shows that the two components are primarily complementary rather than simply confirmatory. Convergence is strongest around the importance of human verification and professional training, whereas organizational governance and disclosure practices show greater variation. In particular, the qualitative findings clarify that reported instructions may coexist with limited formalization and that disclosure practices depend partly on the perceived degree of AI intervention. Authorship represents a further area in which survey responses were heterogeneous, while the interviews more consistently emphasized human editorial responsibility. These integrated findings provide the empirical basis for the discussion that follows.

5. Discussion

The findings indicate that AI use was widely reported among the journalism professionals included in the quantitative sample, while the interviews showed substantial variation in how these technologies were incorporated into professional routines. This distinction is important for interpreting RQ1 because AI use did not represent a single form of technological adoption. Instrumental applications such as transcription, summarization, translation, data analysis, and editorial support coexisted with generative applications involving text and image production. Automated journalism constitutes a third analytical category in the conceptual framework; however, because the survey did not operationalize structured-data or rule-based automated news production as a separate response category, its prevalence cannot be independently estimated from the present quantitative data. The qualitative findings further showed that the degree of technological intervention mattered to participants, particularly when AI moved from supporting routine tasks to participating more directly in content production. The findings should therefore be interpreted in light of the conceptual distinction between instrumental, automated, and generative applications of AI, while recognizing that the empirical instrument provided more direct evidence for instrumental and generative uses (Mondría Terol, 2023; Ufarte-Ruiz et al., 2023; Jungherr & Schroeder, 2023).

The findings therefore support an interpretation of AI adoption as heterogeneous rather than uniform. This result is consistent with Salas et al. (2023), who show that journalists' understandings and uses of digital technologies vary according to professional trajectories, organizational cultures, and newsroom routines. It is also compatible with Forja-Pena et al. (2024) and Sonni et al. (2024), who situate AI within a broader transformation of journalistic production rather than as an isolated technological development. In the present study, the interviews suggest that efficiency was valued particularly in time-consuming or repetitive tasks, while verification, interpretation, source work, and editorial judgment continued to be associated with human professional responsibility. This distinction also supports the argument advanced by Montoro-Montarroso et al. (2023) that automated systems can assist journalistic verification but do not eliminate the need for contextual interpretation and human oversight.

Regarding RQ2, the results reinforce the usefulness of treating transparency as a multidimensional practice. Disclosure to audiences, acknowledgment of partial AI assistance, identification of the AI system, attribution, authorship, human verification, and internal governance did not display the same patterns in the survey. This finding cautions against reducing transparency to the single question of whether a media product carries an AI label. In particular, the qualitative evidence showed different professional thresholds for disclosure. Some participants described explicit identification of AI-generated or AI-assisted material, whereas others distinguished between substantial interventions in content production and more limited technical assistance. This variation is consistent with the broader ethical concern identified by Somorin and Ademola (2024) and Sonni et al.

(2024): transparency requires not only visibility of technological use, but also clarity about its function, degree of intervention, human supervision, and accountability.

The distinction between disclosure and informational-source attribution is also relevant. The survey showed heterogeneous reported practices concerning whether AI was cited as a source, but this item should not be interpreted as evidence that AI systems function as journalistic sources in the same sense as people, documents, databases, or primary evidence. Rather, the responses illustrate variation in how technological mediation is acknowledged within journalistic production. A similar distinction applies to authorship. Responses concerning partially AI-generated content were dispersed, while the interviews more consistently located final verification and editorial accountability with human professionals. This suggests that perceptions of authorship and editorial responsibility are related but analytically distinct. The result is consistent with Reinoso et al. (2025), who identify authorship, verification, and professional responsibility as interconnected challenges in automated journalism.

Organizational governance provides another important area of interpretation. The survey showed that reported instructions from superiors were more common than reported AI-specific deontological codes. The interviews help explain this apparent tension by identifying several intermediate forms of governance: verbal instructions, recommendations communicated by email, general ethical standards, professional judgment, and AI-specific provisions still under development. Consequently, the findings do not support a binary distinction between regulated and unregulated professional environments. Instead, they suggest a continuum of institutionalization in which informal guidance, general newsroom norms, and emerging AI-specific rules may coexist. This distinction is particularly relevant because internal instructions cannot be treated as equivalent to a formal institutional policy or independently verified organizational protocol.

At a thematic level, this pattern shares similarities with the Spanish study by Fernández-Barrero and Serrano-Martín (2025), whose questionnaire served as the source for the contextual adaptation and extension used in the present study. Their research also identified widespread professional use of AI alongside limited internal policies, inconsistent transparency practices, and reliance on forms of professional self-regulation. Findings from the present Ecuadorian sample extend this discussion by showing that, within the professional environments represented, participants' non-reporting of a specific AI code did not necessarily imply a complete absence of organizational guidance: some participants reported instructions and emerging practices even when a consolidated AI-specific framework was not evident. The Ecuadorian study should not be interpreted as a strict replication of the Spanish study because the instrument was contextually and operationally adapted, additional items were incorporated, and the sampling procedures differed. Accordingly, the comparison is limited to thematic and contextual patterns rather than direct comparisons of national prevalence rates.

Human verification constitutes the clearest area of convergence between the quantitative and qualitative components. Mandatory human verification was the most frequently selected component of proposed internal AI rules, and the interviews repeatedly emphasized rereading, source checking, editorial review, and additional verification of AI-generated outputs. This emphasis is consistent with Sultan et al. (2024), who argue that AI-assisted journalistic processes require clear verification protocols and continued human supervision. It also reflects a broader professional concern identified by Calvo Rubio and Rojas Torrijos (2024): technological competence alone is insufficient if it is not accompanied by journalistic quality criteria and deontological judgment. The findings therefore suggest that participants did not primarily frame human oversight as resistance

to technological innovation, but as a mechanism for maintaining professional responsibility when AI participates in journalistic workflows.

RQ3 concerned the ethical, organizational, and professional criteria that participants considered necessary for responsible AI integration. Training emerged as one of the most consistent priorities, together with human verification, audience transparency, internal guidance, and clearer ethical criteria. The qualitative findings add an important qualification: support for governance did not imply support for a single regulatory model. Some participants favored clearer formal rules, whereas others emphasized professional education, ethical judgment, and non-punitive guidance. These differences suggest that responsible AI governance may involve several complementary levels: individual professional competence, newsroom-level protocols, deontological standards, and broader regulatory discussion. This interpretation is consistent with Lopezosa et al. (2023), who argue that journalism education in AI requires technical competence together with critical and ethical preparation.

The contribution of the present study is therefore not to establish a national measure of media transparency, but to provide empirical evidence about how a group of journalism professionals in Ecuador report and interpret AI-related practices within heterogeneous professional environments. The findings can be situated alongside previous Ecuadorian research that has identified uneven AI adoption, training needs, and the limited development of explicit editorial guidance (Salinas Parra, 2024; Toro-Bravo et al., 2024), as well as with regional evidence pointing to self-directed adoption and reliance on self-regulation (Navarro Zamora, 2023). They also illustrate why professional self-regulation and internal organizational governance should be analytically distinguished. Individual ethical judgment may operate even in professional environments where participants did not report a dedicated organizational policy, while the reported existence of instructions does not necessarily indicate a comprehensive institutional framework. This distinction provides a more precise basis for examining the relationship between technological adoption, professional responsibility, and organizational formalization in AI-assisted journalism.

Several limitations delimit the interpretation of these findings. First, the quantitative component was based on a non-probability convenience sample with a chain-referral component; therefore, the results cannot be generalized to all journalism professionals, newsrooms, or media organizations in Ecuador. The absence of a recorded invitation denominator also prevents calculation of a conventional response rate. Second, the individual professional constituted the unit of analysis, and the questionnaire did not systematically collect organization identifiers, respondent role, years of experience, geographic region, employment status, ownership structure, or managerial responsibility. It is therefore not possible to determine the number of unique media organizations represented, establish whether multiple participants belonged to the same outlet, or independently verify reported organizational practices. Moreover, because no separate "Does not know" category was available for the relevant closed-ended items, negative responses concerning organizational codes, policies, or disclosure requirements may reflect either the participant's knowledge that such provisions were absent or incomplete knowledge of organizational practices. These responses should therefore be interpreted as individual reports rather than verified evidence of organizational absence. Third, the qualitative component comprised seven interviews selected purposively through professional contacts. No formal saturation criterion was established; the qualitative analysis was conducted by a single researcher, and no participant member checking was performed. These conditions limit the breadth and independent verification of the qualitative interpretation, although transcript verification against the original audio and the retention of divergent cases strengthened the analytical traceability of the material.

A further limitation concerns the measurement of transparency itself. The questionnaire addressed several conceptually related dimensions but did not constitute a validated psychometric scale or composite transparency index. "Not applicable" responses also varied across items, requiring the use of applicable-case denominators and sensitivity analysis. Finally, the study did not collect data directly from audiences and therefore cannot establish whether the reported practices affect public trust, credibility judgments, or audience responses to AI-assisted journalism. Future research could address these limitations through probability or stratified sampling, organization-level case studies, systematic analysis of newsroom policies, larger qualitative samples, direct observation of journalistic routines, and audience research examining responses to different forms of AI disclosure. Cross-national studies using harmonized instruments could also determine whether the similarities observed between Ecuadorian and other contexts reflect broader regional patterns or context-specific forms of AI governance.

6. Conclusions

This study examined how journalism professionals in Ecuador report the incorporation of artificial intelligence into their professional routines, how they describe transparency-related practices, and which ethical, organizational, and professional criteria they consider necessary for responsible AI use. The findings show that AI use was widespread within the surveyed sample, but its incorporation was heterogeneous. Instrumental applications for transcription, summarization, translation, data analysis, editing, and information organization coexisted with generative uses involving text and image production. The qualitative findings further indicate that the perceived acceptability of these applications depends partly on the degree of AI intervention and on the preservation of human editorial judgment.

Transparency did not emerge as a single or uniformly institutionalized practice. Disclosure to audiences, acknowledgment of partial AI assistance, identification of AI systems, authorship attribution, human verification, and internal governance showed different patterns across the surveyed professional environments. The interviews further demonstrated that professionals apply different thresholds for determining when AI intervention should be disclosed. At the same time, perceptions of authorship were more dispersed than perceptions of editorial responsibility, with the qualitative accounts consistently emphasizing the continued importance of human verification, judgment, and accountability.

The study also identifies an important distinction between organizational guidance and formal institutionalization. Participants reported verbal instructions, recommendations, general ethical standards, written guidance, and AI-specific provisions at different stages of development. Consequently, the findings do not indicate a uniform absence of governance, but rather varying degrees of formalization across the professional environments represented in the study. With respect to RQ3, participants prioritized human verification as a component of internal AI rules and identified professional training, audience transparency, and human review as central measures for improving transparency. For broader ethical and governance changes, ethical training, AI-specific deontological codes, and internal organizational protocols emerged as the most prominent preferences. The compliance-restricted analyses preserved this broad emphasis, although the magnitude and relative ordering of some categories varied. The qualitative findings reinforced the importance of training, human editorial oversight, clearer organizational guidance, and ethical criteria, while also showing that these preferences do not converge on a single regulatory model.

The principal contribution of the study lies in providing empirical evidence from an underexamined Ecuadorian context while distinguishing professional self-regulation,

organizational governance, transparency practices, and editorial responsibility as related but analytically separate dimensions of AI-assisted journalism. The findings should be interpreted within the limits of a non-probability sample, individual-level self-reports, and a qualitative component comprising seven interviews. They therefore do not provide a national estimate of the transparency of Ecuadorian media organizations. Rather, they identify patterns, tensions, and professional criteria within the environments represented in the study that can inform future organization-level, audience, and comparative research on AI governance in journalism.

Supplementary Materials: The following supporting information can be downloaded at: https://www.mdpi.com/article/10.3390/journalmedia7040219/s1, Supplementary S1. Comparison between the Source Spanish Questionnaire and the Ecuadorian Contextual Adaptation and Extension; Supplementary S2. Questionnaire Administered to Journalism Professionals in Ecuador (Original Spanish Version and English Translation); Supplementary S3. Qualitative Analysis Matrix for Participants P1–P7; Supplementary S4. Semi-Structured Interview Guide; Supplementary S5. De-identified Quantitative Dataset; Supplementary S6. Quantitative Dataset Codebook; Supplementary S7. Reproducible SPSS Syntax for the Analyses Reported in This Article.

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Institutional Review Board Statement: This study was reviewed and approved by the Ethics Committee of the Communication and Journalism Programs, Faculty of Communication, Humanities, and Creativity, Universidad ECOTEC, under the Certificate of Ethical Review of the Research Protocol No. 01-15-12-2025, issued on 18 December 2025. The ethical review covered voluntary participation, informed consent, confidentiality, protection of identifying information, and secure handling of the data collected. The approved ethics documentation did not specifically identify ElevenLabs or any other external transcription service subsequently used to assist with interview transcription. No separate subsequent ethics review of the external transcription service was conducted. The study included seven semi-structured interviews with adult professionals conducted between January and February 2026 and an online survey administered between 15 May and 15 June 2026. The survey collected an email/account identifier for response management and duplicate-control purposes; identifying information was removed from the analytical dataset before statistical analysis. Interview participants are reported in the article using participant codes (P1–P7), and specific organizational affiliations are omitted to reduce the risk of indirect identification. The study did not involve experimental intervention or vulnerable participants.

Informed Consent Statement: Informed consent was obtained from all participants involved in the study. Survey participants provided electronic informed consent before accessing the study questions. Participants who did not provide consent were automatically directed to the end of the questionnaire. Interview participants were informed of the academic purpose of the research, the voluntary nature of their participation, their right to decline to answer any question, and that the interviews would be audio-recorded for transcription and analytical purposes. Audio recording proceeded only with participants' authorization. The consent process did not specifically identify the external transcription service subsequently used to assist with transcription. For reporting in the present article, interview participants are identified using codes (P1–P7), and specific organizational affiliations are not disclosed.

Data Availability Statement: The materials supporting the quantitative and qualitative analyses are provided as Supplementary Files accompanying this article. Supplementary S1 contains the item-by-item comparison between the source Spanish questionnaire and the Ecuadorian contextual adaptation and extension; Supplementary S2 contains the questionnaire administered to participants

in its original Spanish-language version, together with an English translation; Supplementary S3 contains the qualitative analysis matrix for participants P1–P7; Supplementary S4 contains the semi-structured interview guide; Supplementary S5 contains the de-identified quantitative dataset; Supplementary S6 contains the quantitative dataset codebook; and Supplementary S7 contains the reproducible SPSS syntax for the analyses reported in this article. The complete interview transcripts are not publicly available because they contain contextual and professional information that could permit the indirect identification of participants. Access to the full qualitative source material is therefore restricted to protect participant confidentiality.

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Abbreviations

The following abbreviations are used in this manuscript:

AI	Artificial intelligence
SPSS	Statistical Package for the Social Sciences

References

Apablaza-Campos, A., & Wilches Tinjacá, J. A. (2024). *Inteligencia artificial para la generación de contenidos en Iberoamérica: Experiencias editoriales en medios de comunicación*. Libros IC. [CrossRef]

Banafi, W. (2024). A review of the role of artificial intelligence in journalism. *Edelweiss Applied Science and Technology*, *8*(6), 3951–3961. [CrossRef]

Calvo Rubio, L. M., & Rojas Torrijos, J. L. (2024). Criteria for journalistic quality in the use of artificial intelligence. *Comunicación y Sociedad*, *37*(2), 247–259. [CrossRef]

Codena Guallasamin, C. S. (2025). *El uso de la inteligencia artificial y los desafíos éticos en el ejercicio del periodismo en Ecuador: El caso del medio digital Canal Tecnológico*. Universidad Central del Ecuador. Available online: https://www.dspace.uce.edu.ec/handle/25000/38588 (accessed on 22 June 2026).

Dávalos Matamoros, A. Á., & Pazmiño Avilés, I. M. (2024). Dinámicas entre la inteligencia artificial y la creatividad periodística. *ComHumanitas*, *15*(2), 158–174. [CrossRef]

Del Alcázar Ponce, J. P. (2025). *Estado digital Ecuador 2025*. Available online: https://www.mentinno.com/informesdigitalesecuador/ (accessed on 28 September 2026).

Eras Sanchez, G. A. (2025). *Competencia en inteligencia artificial: Un análisis de su impacto en las salas de redacción periodística*. Machala. [CrossRef]

Espinosa Baquero, C. (2024). Ecuador: Desde la automatización hacia la transformación de contenidos. In A. Apablaza-Campos, & J. A. Wilches Tinjacá (Eds.), *Inteligencia artificial para la generación de contenidos en Iberoamérica: Experiencias editoriales en medios de comunicación* (1st ed., pp. 90–93). DataFactory; Institución Universitaria Politécnico Grancolombiano; Iniciación Científica. [CrossRef]

Fernández-Barrero, M. Á., & Serrano-Martín, C. (2025). Are the media transparent in their use of AI? Self-regulation and ethical challenges in newsrooms in Spain. *Journalism and Media*, *6*(3), 152. [CrossRef]

Forja-Pena, T., García-Orosa, B., & López-García, X. (2024). The ethical revolution: Challenges and reflections in the face of the integration of artificial intelligence in digital journalism. *Communication & Society*, *37*(3), 237–254. [CrossRef]

Gaibor Miranda, G. C., Galán Rodríguez, L. A., Naranjo Larrea, A. C., & Parreño Ruales, G. R. (2025). Transformando el juego: La revolución de la inteligencia artificial en el periodismo deportivo. *Uru: Revista de Comunicación y Cultura*, *11*, 86–100. [CrossRef]

Jungherr, A., & Schroeder, R. (2023). Artificial intelligence and the public arena. *Communication Theory*, *33*(2–3), 164–173. [CrossRef]

Laroshenko, O. (2024). Artificial intelligence in journalism: The future of media under the influence of new technologies. *Наукові Записки Інституту Журналістики*, *2*(85), 139–156. [CrossRef]

Ley Orgánica de Comunicación [LOC]. (2022). *Ley Orgánica Reformatoria de la Ley Orgánica de Comunicación. Registro Oficial del Ecuador, Segundo Suplemento N.º 188, 14 November 2022*. Available online: https://www.asambleanacional.gob.ec/sites/default/files/private/asambleanacional/filesasambleanacionalnameuid-29/Leyes%202013-2017/1159-jcardenas/ro-188-2s-14-11-2022_comp.pdf (accessed on 1 July 2026).

Lopezosa, C., Codina, L., Pont-Sorribes, C., & Vállez, M. (2023). Use of generative artificial intelligence in the training of journalists: Challenges, uses and training proposal. *Profesional de la Información*, *32*(4), e320408. [CrossRef]

Lopezosa, C., Pérez-Montoro, M., & Rey-Martín, C. (2024). El uso de la inteligencia artificial en las redacciones: Propuestas y limitaciones. *Revista de Comunicación*, *23*(1), 279–293. [CrossRef]

Mellado, C., Blanchett, N., Stępińska, A., Mothes, C., Lecheler, S., Blanco-Herrero, D., Chen, Y.-N. K., Cohen, A. A., Davydov, S., De Maio, M., Dingerkus, F., Elhamy, H., Garcés-Prettel, M., Gousset, C., Hallin, D. C., Humanes, M. L., Himma-Kadakas, M., Kozman, C., Lee, M., … Zhao, X. (2023). Does news platform matter? Comparing online journalistic role performance to newspaper, radio, and television. *Digital Journalism*, *12*(3), 376–399. [CrossRef]

Mondría Terol, T. (2023). Innovación mediática: Aplicaciones de la inteligencia artificial en el periodismo en España. *Textual & Visual Media*, *17*(1), 41–60. [CrossRef]

Monedero-Morales, C. d. R. (2025). Periodismo digital en Ecuador: Entre innovación y dependencia financiera. Un estudio comparativo Quito-Guayaquil. *Dixit*, *39*, e4673. [CrossRef]

Montoro-Montarroso, A., Cantón-Correa, J., Rosso, P., Chulvi, B., Panizo-Lledot, Á., Huertas-Tato, J., Calvo-Figueras, B., Rementeria, M. J., & Gómez-Romero, J. (2023). Fighting disinformation with artificial intelligence: Fundamentals, advances and challenges. *Profesional de la Información*, *32*(3), e320322. [CrossRef]

Moreno Mesa, J. M., & Sánchez Decicco, W. (2022). Precarización y desinformación, un muro para la verificación: Desafíos para la verdad informativa en el nuevo entorno de producción y consumo mediático. In F. J. Caro-González, M. Garrido-Lora, & M. M. García-Gordillo (Eds.), *El problema de la verdad: Retos y riesgos en la comunicación* (pp. 121–137). Comunicación Social Ediciones y Publicaciones. [CrossRef]

Navarro Zamora, L. (2023). Inteligencia artificial en el ciberperiodismo de América Latina. *Question/Cuestión*, *3*(75), e806. [CrossRef]

Niño Romero, M., & Borges, G. (2025). Inteligencia artificial y algoritmos en el periodismo: Transformaciones en la cultura profesional y la formación universitaria. *Revista de la Asociación Española de Investigación de la Comunicación*, *12(Especial)*, raeic12e04. [CrossRef]

Okonkwo, P., Njoku, I. A., & Okonkwo, R. N. (2024). Digital media ethics in generative AI journalism: A framework for accountability. *Preprints.org*. [CrossRef]

Olanipekun, S. O. (2025). Ethical frameworks for AI in journalism: Balancing technological innovation and journalistic integrity. *World Journal of Advanced Research and Reviews*, *25*(1), 1342–1351. [CrossRef]

Parratt-Fernández, S., Mayoral-Sánchez, J., & Mera-Fernández, M. (2021). The application of artificial intelligence to journalism: An analysis of academic production. *Profesional de la Información*, *30*(3), 7. [CrossRef]

Peñafiel Chuquián, A. O. (2025). *El uso de la inteligencia artificial en la construcción de la noticia y su relación con las prácticas de ética periodística en el medio digital Ecuador Play* [Master's thesis, FLACSO Ecuador]. Available online: http://hdl.handle.net/10469/23833 (accessed on 22 June 2026).

Reinoso, D. I., Palacios, A. G., & Vizuete, F. H. O. (2025). La inteligencia artificial en el periodismo: Herramientas y aplicaciones. *Revista Latinoamericana de Ciencias Sociales y Humanidades*, *6*(1), 2354–2375. [CrossRef]

Reyes-Hidalgo, C., & Burgos Zambrano, D. (2024). Inteligencia artificial y periodismo: Retos y desafíos en la nueva era. In *Actas del Congreso de Investigación, Desarrollo e Innovación* (pp. 384–389). Universidad Internacional de Ciencia y Tecnología (UNICyT). [CrossRef]

Rodríguez-Urra, C., Trillo-Domínguez, M., & Herrero-Solana, V. (2023). Mapa mediático hispanoamericano: Una aproximación desde la academia. *Revista de Comunicación*, *22*(1), 435–452. [CrossRef]

Salas, M. F., Siles, I., & Carazo-Barrantes, C. (2023). Imaginarios de periodistas costarricenses sobre la inteligencia artificial y otras tecnologías digitales. *Textual & Visual Media*, *17*(1), 61–75. [CrossRef]

Salinas Parra, N. K. (2024). Influencia de IA en los medios periodísticos del Ecuador. *Ciencia Latina*, *8*(5), 7823–7841. [CrossRef]

Salonen, M., Ehrlén, V., Koivula, M., & Talvitie-Lamberg, K. (2023). Post-publication gatekeeping factors and practices: Data, platforms, and regulations in news work. *Media and Communication*, *11*(2), 367–378. [CrossRef]

Simon, F. M. (2025). Rationalisation of the news: How AI reshapes and retools the gatekeeping processes of news organisations in the United Kingdom, United States and Germany. *New Media & Society*, *28*(9), 4370–4390. [CrossRef]

Somorin, K., & Ademola, O. E. (2024). Ethical imperatives in the era of AI journalism: Navigating the intersection of technology and responsibility. *Advances in Multidisciplinary and Scientific Research Journal*, *12*(2), 31–36. [CrossRef]

Sonni, A. F., Hafied, H., Irwanto, I., & Latuheru, R. (2024). Digital newsroom transformation: A systematic review of the impact of artificial intelligence on journalistic practices, news narratives, and ethical challenges. *Journalism and Media*, *5*(4), 1554–1570. [CrossRef]

Sultan, M. I., Bhuiyan, A. J. M. S. A., & Amir, A. S. (2024). Reimagining journalism: Exploring the AI revolution—A thorough analysis of potential advantages and challenges. *Komunikator*, *16*(1), 1–13. [CrossRef]

Toro-Bravo, J. P., Guerrero-Troya, N. M., & Álvarez Garzón, L. C. (2024). La inteligencia artificial en el periodismo de Cotopaxi. *Revista Enfoques de la Comunicación*, *12*, 241–288.

Ufarte-Ruiz, M.-J., Murcia-Verdú, F.-J., & Túñez-López, J.-M. (2023). Use of artificial intelligence in synthetic media: First newsrooms without journalists. *Profesional de la Información*, *32*(2), e320203. [CrossRef]

Verma, D. (2024). Impact of artificial intelligence on journalism: A comprehensive review of AI in journalism. *Journal of Communication and Management*, *3*(2), 150–156. [CrossRef]

Xie, Y. (2024). The application of artificial intelligence in news communication: Practical exploration and ethical dilemma. *Media Studies*, *1*(2), 28–35. [CrossRef]

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