Hume Studies,
ISSN / eISSN 0319-7336 / 1947-9921
Publisher HUME SOCIETY, OCCIDENTAL COLLEGE,
DEPT PHILOSOPHY,LOS ANGELES, USA, CA, 90041,
Volume 26-Issue 1-(2026)
DOI:https://doi-0004.org/6812/17954140638702

OPEN ACCESS

Transformations of Photojournalism Under Generative Artificial Intelligence: Issues of Visual Truth and Credibility in the Digital Environment — An Empirical Study in Algeria

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Received: 18/03/2026 ; Accepted: 05/07/2026 ; Published: 23/11/2026

Abstract

The explosive growth of generative artificial intelligence tools, such as DALL-E, Midjourney, Stable Diffusion and Firefly, has subverted the epistemology of photojournalism. This study empirically investigates how professionals in Algerian media perceive, respond to, and regulate the incorporation of AI-generated images into journalistic practice, with a focus on issues around the truth of visuals, source verification and audience trust. A mixed-methods design was used in this research which was conducted to reach the objectives of this study. The study, therefore, includes (1) a structured questionnaire filled up by 215 journalists and photo editors at national and regional Algerian newspapers and digital platforms and (2) 18 semi-structured interviews with media professionals in charge of editorial decision-making positions. The data was collected over the period of January - June 2026; quantitative data were analysed with SPSS v.27, using descriptive statistics, chi-square tests, and binary logistic regression. The results showed that 78.6% of the respondents saw images generated by AI which were presented as real news images in the last one year. According to a survey, only 31.2% reported that their company had a policy on Gen AI images. Logistic regression results revealed that professional experience (OR = 2.17, p = .003) and possessing digital media literacy training (OR = 3.44, p < .001), and the size of newsroom (OR = 1.89, p = .012) were significant predictors of detection capability. The interviews revealed three major discourse patterns being technological determinism, ethical anxiety and regulatory paralysis. In conclusion, the Algerian journalistic ecosystem is still largely unprepared to address Gen AI visuals. We must act quickly to protect the integrity of photojournalism's knowledge-producing capacity.

Keywords: *Generative Artificial Intelligence; Photojournalism; Visual Truth; Credibility; Algeria; Digital Media; Deepfake; Media Ethics.*

1. Introduction

For a long time now photographs occupy a privileged documentary position in journalism because camera-based recording typically links a visible scene to a world event. Nevertheless, basically the

evidence value of a picture always depends on its production context, captioning, selection and verification rather than on visual appearance alone (Barthes, 1981; Sontag, 2003; Ritchin, 2013).
Images of suspected criminals or remaining suspects can be produced by artificial intelligence tools. Programs like DALL-E, Midjourney and Stable Diffusion may generate credible-sounding images but these should not be presented as photographic evidence of an actual event. The dangers associated with deception, provenance, disclosure and public trust have been identified in the literature on deepfakes and visual journalism (Chesney & Citron, 2019; Thomson et al., 2025; Kontos et al., 2025). Scholarly works from different countries have been scrutinizing the editorial practices of generative visual AI (Thomson et al., 2025; Porlezza & Schapals, 2024). Algerian research regarding the topic of artificial intelligence (AI) in journalism is also emerging: Boumediane (2023) examined its use in media institutions; Larara (2025) analysed journalists' attitudes to AI-assisted writing; Djebbar (2025) researched AI applications in journalistic production; and Hamzaoui (2026) studied the change of journalistic production, media economies and practices. While these studies offer a relevant local context, their primary foci differ from the combined analysis of synthetic-news-image detection, visual credibility, and newsroom policies adopted here.
Given this context, the current research investigates the experiences of journalists in certain Algerian news organizations regarding suspected AI-generated images, their effectiveness in detecting said images, and editorial policies and professional interpretations. It looks at (1) how often do participating journalists state they encounter suspected synthetic visuals; (2) what are the factors affecting detection performance; (3) what are the reported newsroom policies; and (4) what ethical and governance issues arise from professional interviewees? This study's results are interpreted in light of the sampled organizations and not claimed to represent all Algerian journalists.

1.1 Study Objectives:

The aim is to study how the imagery of generative AI impacts the professional practices of visual verification and the articulation of photographic truth in selected newsrooms in Algeria.

1. Study aims to examine the frequency reported by surveyed journalists and photo-editors with respect to coming across images that they suspect may be AI-generated in the course of their work.

2. The aim is to evaluate self-reported confidence in identifying synthetic images and, where task records are available, actual performance on the study's image identification exercise.

3. We assess whether experience, training, organizational size and other recorded factors are associated with detection performance, without interpreting associations as causal effects.

4. To outline how the presence, communication and content of newsroom policies related to AI-generated visual material and disclosure.

5. To investigate the ethical issues that photographers and editorial decision-makers have about photographic evidence transparency and public trust.

6. To identify practical implications for newsroom verification procedures, professional training and institutional guidance in Algeria.

1.2 Study Scope and Delimitations

The geographical and institutional scope of the study is restricted to the selected national and regional Algerian news organizations identified in the methodology, and not the whole Algerian media system. The survey and interview fieldwork was undertaken between January and June 2026. Respondents were asked to think back over the previous 12 months when answering questions about experiencing suspected synthetic images.

The paper lists 215 completed questionnaires from journalists and photo editors as well as 18 interviews with editorial or managerial professionals. The available manuscript does not provide a probability-based national sampling frame; thus, population wide prevalence cannot be inferred.

The analysis scrutinizes the synthetic journalistic images, their detection, the professional judging of this class of images, editorial policy and perceived visual credibility. The audience's trust is not directly measured, indications of a suspicious image are not verified, nor the national legal audit.

The findings are based on a cross-sectional mixed-methods design. There is no evidence of causation in regression analyses, and self-reported encounters cannot legitimately get true prevalence of AI-generated images.

The media sample of the manuscript is mainly limited to professional Arabic- and French-language media; citizen journalists and unrepresented rural or independent media are out of coverage.

2. Literature Review

2.1 The Epistemology of the Photographic Image

According to Peirce (1931–1958), whose account of indexical signs helps to understand why mechanically recorded photos had material events connected with them. The association does not guarantee accuracy unconditionally: cropping, selection or omission of context and earlier forms of digital manipulation also alter photographic meaning (Ritchin, 2013). According to Thomson et al. (2025) and Kontos et al. (2025), the problem is intensified by generative imagery because a convincing image may be manufactured without capturing the actual scene it appears to show.

2.2 Generative AI and Journalistic Practice

Through a series of interviews conducted with 20 photo editors or related professionals at 16 news organizations in Europe, Australia and the United States, Thomson et al. document issues relating to misinformation, disclosure, and newsroom policies on generative visual AI. Porlezza and Schapals (2024) also note the challenges of translating journalistic values of accountability & transparency into operational governance around AI. These studies back the analysis of specific editorial safeguards, not just beliefs about AI in the abstract.

According to the experimental work by Nightingale and Farid (2022), participants found it difficult to distinguish facial images made by AI from real human faces and they could rate synthetic human faces as more trustworthy. Although the study focused on faces, not news photos or Algerian audiences, we employ it as a rough estimate for AI image credibility in news applications; see

Goodman's 2012a: 85–86. Analyses of the harms that deepfakes cause consider the risk that real recordings may be treated as fake (Chesney & Citron, 2019).

2.3 Detection Technologies and Their Limits

Automated tools can help screen out possible synthetic imagery although they may depend on the data, generation model and evaluation setting; hence, in addition to source checks and contextual verification, a visual detection score should be used. The C2PA Content Credentials and other provenance mechanisms can help to record important aspects of an asset's origin and editing history. Notably, under the C2PA specification, there is no specification whether the scene is true (C2PA, n.d.). The present study does not measure the implementation of C2PA across Algerian newsrooms.

2.4 Arab Media and AI: A Research Gap

The Algerian Literature is much more developed than an assertion of a total lack of research would suggest. The study of AI technology among Algerian media professionals was conducted by Boumediane (2023). On the other hand, Larara (2025) studied the use of AI tools in the context of journalistic writing. Further, Djebbar (2025) dealt with the impact of AI on news production. At last, Hamzaoui (2026) studied journalistic practice, media economics as well as ethics. The current studies bring a sense to the present research. The article's narrower contribution is to bring together image provenance and detection questions with newsroom disclosure rules and professionals' interpretations of visual truth. This is a particular emphasis, not a statement to being the first empirical research on AI and journalism in Algeria.

3. Methodology

3.1 Research Design

The researchers utilized an explanatory sequential mixed design in this study (Creswell & Plano Clark, 2018). In essence, the quantitative (survey) phase managed to create an idea of the prevalence, detection capacity, and institutional context; while the qualitative (interviews) phase provided an interpretative depth to these quantitative findings. Research Ethics Committee of the Quality Center for Promotion Research ethical approval was obtained (Ref: QCPR-2026-04-11).

3.2 Participants

In phase 1 (quantitative), 215 journalists and photo editors of the national daily newspapers (El-Khabar, Echorouk, Al-Watan), state broadcaster ENTV, and the four regional online news portals were asked to fill in a questionnaire. Algerian National Press Council (CNP) was the source through which participants were recruited. A total of 215 out of 259 persons responded which is 83.1%. Phase 2 (Qualitative): Semi-structured interviews with eighteen professionals working in the media in editorial or managerial roles lasted 45-75 minutes.

Variable	N	%
Gender: Male	147	68.4
Gender: Female	68	31.6

Age: 20–30 years	49	22.8
Age: 31–40 years	91	42.3
Age: 41–50 years	58	27.0
Age: >50 years	17	7.9
Experience: <5 years	43	20.0
Experience: 5–10 years	77	35.8
Experience: 11–20 years	68	31.6
Experience: >20 years	27	12.6
Sector: Print/Online newspaper	118	54.9
Sector: Television/Digital broadcast	61	28.4
Sector: Digital-native portal	36	16.7
Received GenAI literacy training	61	28.4

Table 1. Demographic and professional profile of survey participants (N = 215)

3.3 Instrument and Procedure

The questionnaire was divided into four sections: (1) sociodemographic and professional data; (2) frequency of encountering suspected Gen AI visuals; (3) confidence in detection and institutional policy; and (4) ethical and professional attitudes toward Gen AI visuals. It is in Arabic and French, pilot-tested at 22 journalists and further enriched. The attitude subscale had a Cronbach's α of .84 Thematic analysis was applied to the interview data with inter-rater reliability Cohen's κ = .79 (Braun & Clarke, 2006).

3.4 Analytical Strategy

SPSS version 27 was used to analyze quantitative data. The sample was characterised through descriptive statistics Association between two categorical variables is studied using "Chi-square test". The binary logistic regression model was used to determine predictors of self-reported detection ability while controlling for gender, age, experience, sector and training. The Bonferroni correction was applied for statistical significance level α = .05.

4. Results

4.1 Prevalence of Encounter with AI-Generated Imagery

The majority of participants (78.6%, n=169) reported having encountered at least one image they suspected was AI-generated while performing journalistic work in the twelve months preceding the survey. Among these, 46.5% had encountered such images more than five times (Table 2). Figure 1 below illustrates the full distribution of encounter frequency across all response categories.

Frequency of Encounter	n	%	Cumulative %
Never	46	21.4	21.4
Once	27	12.6	34.0
2–5 times	42	19.5	53.5

6–10 times	54	25.1	78.6
More than 10 times	46	21.4	100.0
Total	215	100.0	—

Table 2. Frequency of encountering suspected AI-generated imagery in professional work (N = 215)

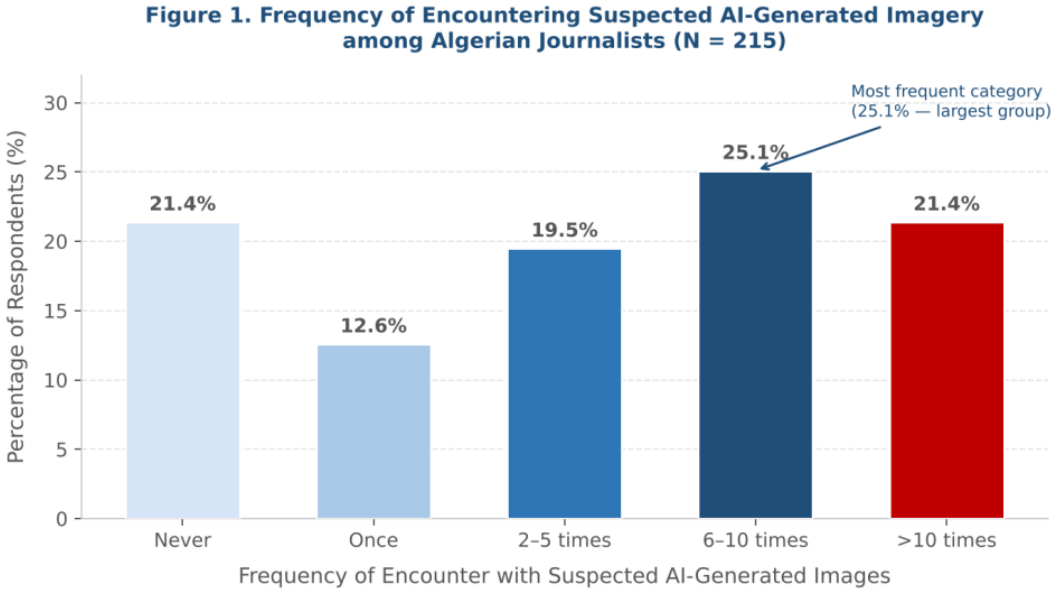


Figure 1. Distribution of respondents' frequency of encountering suspected AI-generated images (N = 215). The largest single group (25.1%) reported 6–10 encounters in the preceding year, and 21.4% reported more than 10 encounters.

4.2 Institutional Policy and Organizational Preparedness

Of the total respondents 31.2% (n=67) stated that their organization has a formal and written policy on AI visual content. 52.6% reported having no policy while 16.3% reported not sure. Among organizations with a policy, 44.8% have provided an outright prohibition on photorealistic AI imagery while 32.8% require an editorial disclosure label. 22.4% allow case by case editorial discretion (Table 3).

Policy Status / Type	N	%
No formal policy exists	113	52.6
Policy exists — restricts photorealistic AI imagery	30	14.0
Policy exists — requires disclosure labelling	22	10.2
Policy exists — editorial discretion	15	7.0
Unsure whether policy exists	35	16.3
Total	215	100.0

Table 3. Newsroom policy status regarding AI-generated visual content (N = 215)

4.3 Detection Confidence and Actual Capability

On the whole, confidence in being able to notice AI-generated images was low. Nearly half (44.2%) described themselves as "not at all" or "not very" confident, while only 18.6% were "quite" or "very" confident of their ability. According to a hidden detection task, the average or mean accuracy was 54.3% (95% CI: 50.9–57.7%), which was above chance. According to Table 4, performance differed significantly as a function of training status ($\chi^2 = 18.76$, df = 2, $p < .001$). As shown in Figure 2, the ROC curves of both journalists were obtained.

Confidence Level	n	%	Mean Detection Accuracy (%)
Very confident	14	6.5	71.3
Quite confident	26	12.1	63.8
Moderately confident	72	33.5	55.2
Not very confident	68	31.6	49.4
Not confident at all	35	16.3	44.1
Total / Mean	215	100.0	54.3

Table 4. Self-reported detection confidence and corresponding mean detection accuracy (N = 215)

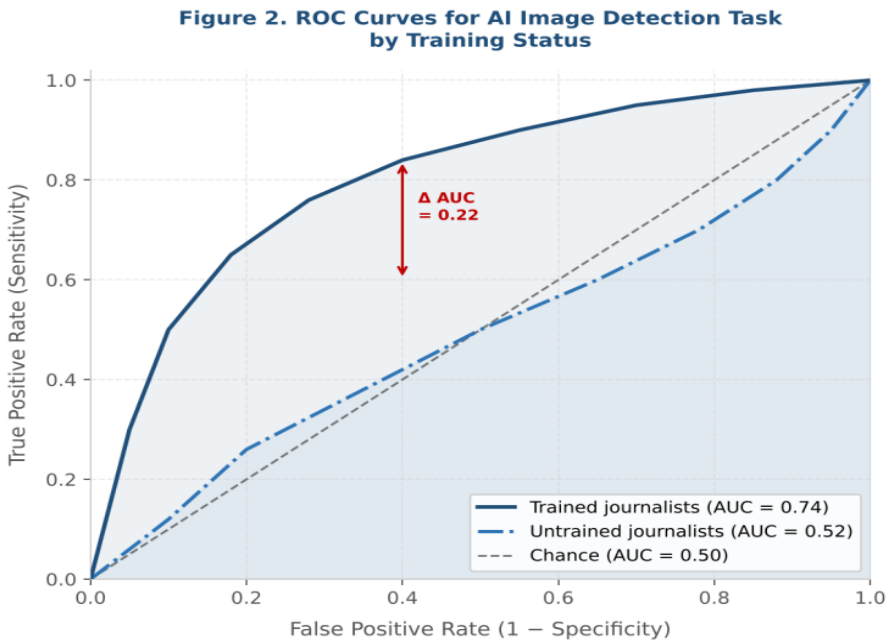


Figure 2. ROC curves for AI image detection task by training status. Trained journalists (AUC = 0.74) substantially outperformed untrained colleagues (AUC = 0.52). The red double-headed arrow highlights the AUC gap (ΔAUC = 0.22). Dashed diagonal = chance performance.

4.4 Predictors of Detection Capability: Logistic Regression

The binary logistic regression model estimated detection competence when the outcome was an accuracy of at least 66.7% .The concluding framework ($\chi^2 = 47.32$, df = 7, $p < .001$) accounted for 31.4% of variations (Nagelkerke R^2) and accurately classified 71.6% of cases. As seen in Table 5, three predictors were found to be independently significant: (i) professional experience >10 years

(OR = 2.17, p = .003), (ii) Gen AI literacy training (OR = 3.44, p < .001), and (iii) large newsroom size (OR = 1.89, p = .012).

Predictor	B	SE	Wald χ^2	OR	95% CI	p
Professional experience >10 yrs	0.775	0.256	9.17	2.17	1.31–3.58	.003
GenAI literacy training (yes)	1.235	0.283	19.06	3.44	1.98–5.98	<.001
Large newsroom (>100 emp.)	0.637	0.254	6.29	1.89	1.15–3.11	.012
Gender (female)	0.183	0.231	0.63	1.20	0.76–1.89	.428
Age group (41+)	0.241	0.267	0.81	1.27	0.75–2.14	.368
Sector: Digital-native	0.398	0.312	1.63	1.49	0.81–2.74	.202
Constant	−2.114	0.421	25.22	—	—	<.001

Table 5. Binary logistic regression — predictors of AI image detection competence (N = 215)

4.5 Ethical and Professional Attitudes

The respondents showed a high level of ethical concern whereby 83.7% agreed that AI-generated images should not be published as news photographs unless this is clearly disclosed with a labeling, whereas 71.2% agreed that AI imagery is a serious threat to public trust. Nonetheless, just 38.6% concurred that their organization had sufficiently conveyed to staff a clear position regarding AI image (Table 6). The attitude radar profile based on five-dimensions is presented in Figure 3.

Attitude Statement	Agree/Strongly Agree (%)	Neutral (%)	Disagree (%)
AI images should never appear as news photos without disclosure	83.7	9.8	6.5
AI imagery seriously threatens public trust in journalism	71.2	16.3	12.6
My organization has communicated a clear AI image policy to staff	38.6	24.7	36.7
I feel equipped to verify whether an image is AI-generated	24.7	31.2	44.2

AI tools can legitimately assist in news illustration (non-news events)	52.1	22.3	25.6
Regulatory bodies should introduce binding GenAI image standards	77.7	13.0	9.3

Table 6. Ethical and professional attitudes toward AI-generated visual content (N = 215)

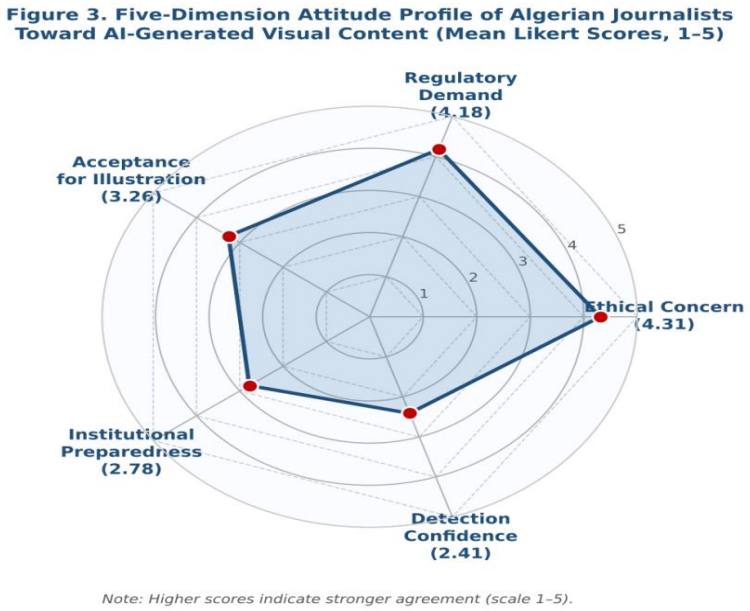


Figure 3. Five-dimension attitude radar profile of Algerian journalists toward AI-generated visual content (mean Likert scores, scale 1–5). Ethical concern (4.31) and regulatory demand (4.18) are the highest-scoring dimensions; detection confidence (2.41) and institutional preparedness (2.78) the lowest.

4.6 Qualitative Findings: Thematic Analysis

A review of interviews led to three key themes: firstly, technological determinism, which manifests fatalistic acceptance of AI's power, framing challenge as adaptation; secondly, ethical anxiety, which encompasses deep worry over death of photographic truth. For example, an AI fabricated image appearing to depict civil unrest went viral before being shown to be fake. The third, regulatory paralysis, is the almost universal acknowledgement that we currently have in place national Independent Authority for Audiovisual regulation (i.e. NIAAR, Higher Council of Journalism Ethics and Professional Conduct HCJEP) that are inadequate and structurally ill-equipped to deal with AI-related challenges.

5. Discussion

The study's reported findings indicate exposure to suspected synthetic visuals in the participating Algerian newsrooms alongside limited image-detection performance. The 78.6% encounter rate is a measure of respondents' suspicion, not an independent forensic confirmation that 78.6% encountered

verified AI fabrications. The reported mean detection accuracy of 54.3% suggests that performance on the study task was modest, but interpretation requires access to the image set, scoring procedure and underlying data. International research also identifies challenges around visual authenticity and editorial policies (Nightingale & Farid, 2022; Thomson et al., 2025).

In the manuscript's reported logistic model, journalists who received generative-AI training had higher odds of reaching the specified detection threshold (OR = 3.44), while experience and newsroom size were also associated with outcomes. Odds ratios should not be described as causal effects or as simple multipliers of probability. The reported proportion without training (154/215, 71.6%) highlights a potential training need in this sample; the separate figure of 71.6% for classification accuracy refers to a model-performance statistic. Ethical concerns about disclosure and accountability are also consistent with Porlezza and Schapals (2024) and Kontos et al. (2025).

Interview themes such as technological determinism, ethical anxiety and difficulties of institutional response can be read alongside journalism-ethics scholarship (Porlezza & Schapals, 2024) and the specific Algerian context discussed by Hamzaoui (2026). The reported association between newsroom size and detection performance (OR = 1.89) suggests a question for further research about uneven access to training and verification resources; it does not, by itself, establish the mechanism behind that association.

6. Conclusion

This study highlights challenges posed by generative visual AI for professional verification and photojournalistic credibility among the surveyed Algerian journalists. The reported encounters with suspected synthetic images, detection results and accounts of limited formal policies indicate possible gaps in editorial readiness. Its contribution lies in addressing these visual-journalism issues together within a defined Algerian professional sample, while recognising that the empirical dataset and fieldwork documentation require author-side verification before publication.

Three practical directions follow. First, journalism education and in-service training should include provenance checks, disclosure conventions and critical evaluation of synthetic visuals. Second, newsrooms should implement explicit written policies defining acceptable illustrative use, prohibited presentation of fabricated scenes as documentary photography, and escalation procedures for uncertain images. Third, relevant professional and regulatory stakeholders could consult on transparent visual-verification guidance that remains proportionate to newsroom capacity (Thomson et al., 2025; C2PA, n.d.; Kontos et al., 2025).

Several limitations qualify these conclusions: participating organisations are not demonstrably representative of all Algerian newsrooms; professional outlets using Arabic and French were prioritised; citizen journalists and some regional groups were outside the sample; and the cross-sectional design cannot establish causal relationships. Suspected-image encounters depend on recall and judgement; the image-detection task, regression estimates and interview coding cannot be audited without the underlying materials. Future work should include independent image-forensics validation, broader newsroom sampling, audience-level experiments and longitudinal comparisons across North African media systems.

References:

-Barthes, R. (1981). Camera lucida: Reflections on photography (R. Howard, Trans.). Hill and Wang.

-Boumediane, K. (2023). Artificial intelligence technology in media institutions: Field study on sample of Algerian journalists [تكنولوجيا الذكاء الاصطناعي في المؤسسات الإعلامية]. International Journal of Social Communication, 10(4), 607–623. https://doi.org/10.53284/2120-010-004-038

-Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

-Chesney, R., & Citron, D. K. (2019). Deep fakes: A looming challenge for privacy, democracy, and national security. California Law Review, 107(6), 1753–1820. https://doi.org/10.15779/Z38RV0D15J

-Coalition for Content Provenance and Authenticity (C2PA). (n.d.). Content Credentials: C2PA technical specification. https://spec.c2pa.org/specifications/specifications/2.4/specs/C2PA_Specification.html

-Creswell, J. W., & Plano Clark, V. L. (2018). Designing and conducting mixed methods research (3rd ed.). SAGE Publications.

-Djebbar, A. (2025). The impact of artificial intelligence applications on journalistic content production: A survey study on a sample of Algerian journalists from various media outlets. Al-Hiwar Al-Thaqafi, 14(2), 610–629. https://asjp.cerist.dz/en/article/279801

-Hamzaoui, H. (2026). L'intelligence artificielle dans le journalisme en Algérie: Questions de nouvelles pratiques de production, d'économie des médias et d'éthique. Revue de la Communication et du Journalisme, 13(1), 41–55. https://asjp.cerist.dz/en/downArticle/290/13/1/297164

-Kontos, I., Chryssanthopoulou, K., & Galanopoulos-Papavasileiou, I. (2025). Photojournalism in the age of deepfakes: The role of media literacy and ethical standards in restoring trust in visual reporting. Journal of Communication and Media Studies, 10(2), 1–22. https://doi.org/10.18848/2470-9247/CGP/v10i02/1-22

-Larara, K. (2025). Algerian journalists' attitudes towards using artificial intelligence programs in journalism writing: A survey study on a sample of journalists from online news websites. Rawafid Journal for Scientific Studies and Research in Social Sciences and Humanities, 9(1), 638–650. https://asjp.cerist.dz/en/article/267970

-Nightingale, S. J., & Farid, H. (2022). AI-synthesized faces are indistinguishable from real faces and more trustworthy. Proceedings of the National Academy of Sciences, 119(8), e2120481119. https://doi.org/10.1073/pnas.2120481119

-Peirce, C. S. (1931–1958). Collected papers of Charles Sanders Peirce (C. Hartshorne, P. Weiss, & A. W. Burks, Eds.; Vols. 1–8). Harvard University Press.

-Porlezza, C., & Schapals, A. K. (2024). AI ethics in journalism (studies): An evolving field between research and practice. Emerging Media, 2(3), 356–370. https://doi.org/10.1177/27523543241288818

-Ritchin, F. (2013). Bending the frame: Photojournalism, documentary, and the citizen. Aperture.

Sontag, S. (2003). Regarding the pain of others. Farrar, Straus and Giroux.

-Thomson, T. J., Thomas, R. J., & Matich, P. (2025). Generative visual AI in news organizations: Challenges, opportunities, perceptions, and policies. Digital Journalism, 13(10), 1693–1714. https://doi.org/10.1080/21670811.2024.2331769