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The Comparative Image Reconstruction Framework: An Empirical Pilot Study of Nigerian and US Election News

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Abstract

Candidate-image studies often examine verbal evaluation and news imagery separately, which obscures how the two modes jointly construct published political representation. This study assesses the operational feasibility of the Comparative Image Reconstruction Framework (CIRF) through a descriptive comparative pilot of 16 online election-news articles: eight from Nigeria and eight from the United States, drawn from eight outlets. CIRF integrates framing, attribute agenda-setting, visual framing, and comparative media-systems perspectives. Two pre-adjudication coding records were compared across 18 textual, discursive, and visual variables. Across 288 paired decisions, 282 agreed (97.9%); variable-level agreement ranged from 87.5% to 100.0%, with Cohen's κ ranging from .810 to 1.000. The primary record identified seven reinforcing, six qualifying, one contradictory, and two absent-image text–image relationships. After three records with source-access limitations were excluded, the sensitivity subset retained six reinforcing, six qualifying, and one absent-image classification. The six disagreements exposed decision boundaries involving textual evaluation, visible affect and multimodal interpretation. These findings provide preliminary evidence that CIRF can organise and audit published candidate representations, while identifying codebook refinements for subsequent testing. CIRF measures content outputs; claims about exposure, audience interpretation, reputation or voting require separate audience evidence.

Keywords: comparative content analysis, candidate image, visual framing, intercoder agreement, text–image alignment

Introduction

Political communication teams encounter published representations that can differ from the messages and photographs they supply. Journalists select events, sources, and images and place them within interpretive frames. A favourable quotation can appear in a critical story, while an emotionally expressive photograph can accompany neutral reporting. These combinations create a measurement problem: a single positive–negative score cannot describe both verbal evaluation and the relationship between words and images. Recent research treats candidate imagery as a distinct component of political impression management and shows that visual self-presentation, newsroom portrayal and platform-specific imagery may diverge (De Vries, 2023; Farkas & Bene, 2021; Haim & Jungblut, 2021; Peng, 2021). Framing and visual-framing scholarship therefore supports analysing these components separately (Entman, 1993; Geise & Baden, 2015).

The Comparative Image Reconstruction Framework (CIRF) organises these components within an account of published candidate representation. It brings together four theoretical perspectives with different functions: framing explains interpretive organisation; attribute agenda-setting directs attention to the qualities made salient in coverage; visual framing addresses images and their relationship to text;

and comparative media-systems theory sensitises analysis to national and outlet context (McCombs, 2005, 2014; Hallin & Mancini, 2004, 2017). Recent framing scholarship emphasises media power, discourse and the bounded nature of political framing effects, while agenda-setting analyses show these findings can depend on analytical configuration (Amsalem & Zoizner, 2022; Geiß, 2022; Roslyng & Dindler, 2023). Integration is useful only if the categories can be applied transparently to actual news records. An empirical assessment must therefore examine coding decisions and disagreements as well as the architecture itself.

This article reports the developmental pilot of a doctoral content-analysis project. Existing research demonstrates the importance of candidate imagery, multimodal framing and contextual media differences, but an operational problem remains: analysts need to preserve distinctions among dominant frame, textual evaluation, candidate attributes, discourse, visual cues and text–image alignment while still producing a reviewable article-level profile. CIRF addresses this problem by treating these elements as linked coding decisions rather than collapsing them into a single sentiment score. The study uses 16 articles selected before the main sampling periods and examines the paired coding records retained in the thesis. Its empirical contribution is an audit of CIRF's article-level procedure, agreement and disagreement boundaries. The small, purposively assembled corpus permits preliminary operational assessment; it cannot estimate national coverage prevalence, test media-system causation, or establish the effects of communication interventions. Three research questions guide the analysis. RQ1 asks how consistently the pilot variables were applied across the two coding records.

1. How consistently were the pilot variables applied across the two coding records?
2. What frames and text–image configurations did the pilot identify, and do those descriptions depend on records with incomplete source access?
3. Which disagreements and retrieval problems require refinement of the coding and content-monitoring procedure?

Literature and Measurement Boundaries

Theoretical roles

Entman (1993) defines framing through selection and salience associated with problem definition, causal interpretation, moral evaluation, and proposed treatment. For CIRF, the dominant frame concerns the organising perspective, whereas textual tone concerns its evaluative treatment of the candidate. The two variables should not be inferred from one another. Contemporary research likewise separates sentiment, stance, frame and discourse, and shows that news frames can accumulate across repeated coverage (Bestvater & Monroe, 2023; Guo et al., 2025; Roslyng & Dindler, 2023). Identifying their empirical boundary is part of instrument development, consistent with the measurement concerns discussed by Matthes and Kohring (2008).

Attribute agenda-setting provides a rationale for recording which candidate qualities receive attention (McCombs, 2005, 2014). Recent work links affective agenda-setting to candidate evaluation and shows that perceptions of traits, authenticity, and electability are analytically distinct (Andrich et al., 2023; Coleman & Wu, 2021; Laustsen, 2021). The pilot instrument distinguishes leadership competence, moral integrity, electability or viability, emotional appeal, and national unity or division. These are coded representations, not psychometric measurements of voters' beliefs. The present article reports agreement statistics as part of the instrument assessment but does not repeat the substantive country-by-dimension analyses reported in the related main-study paper. Formal candidate-prominence indicators were added after the pilot and consequently are not validated by these 16 records.

Visual framing requires attention to the principal image as well as its relation to the verbal account. Recent reviews identify a multimodal turn in framing research but also report limited attention to relationships between modes and to evidence from African settings (Geise & Xu, 2025; Xu, 2025). Candidate studies further show this image selection can vary by outlet, gender, campaign strategy and political context (Jungblut & Haim, 2023; Melek & Raza, 2023). Kress and van Leeuwen (2021) and Geise and Baden (2015) explain why visual and textual meaning need not coincide. CIRF separates observable visual features, such as shot type and setting, from interpretive decisions about emotional display and text–image alignment. The pilot contains visual-feature and alignment codes; it does not contain a separate paired principal-image-valence variable comparable to the later main-study instrument. No tone-

by-visual-valence hypothesis is therefore tested here.

Comparative media-systems theory provides contextual questions about the institutional conditions within which journalism operates (Hallin & Mancini, 2004, 2017). Recent scholarship describes digital media systems as hybrid and demonstrates substantial cross-national differences in media structures and political communication (Hallin et al., 2023; Humprecht et al., 2022; Marques & Vos, 2024). Country and outlet are grouping variables in this pilot, not direct measurements of professionalism, political parallelism, or ownership influence. Nigeria and the United States provide contrasting settings in which to try the coding scheme, but two countries and two records per outlet cannot identify institutional effects. An event concentrated in one country can produce an apparent national difference without a national mechanism.

CIRF as a content diagnostic

Figure 1 distinguishes the wider management style from the variables measured here. Communication inputs include messages, briefings and supplied images. Journalists retain discretion over publication, selection, framing and editing. The framework's diagnostic output is a coded profile of published content and a record of interpretive uncertainty. The pilot observes the published-content stage only: it does not pair campaign inputs with newsroom outputs and therefore cannot estimate how an input changed coverage. The arrows indicate an analytical sequence, not fitted causal relationships.

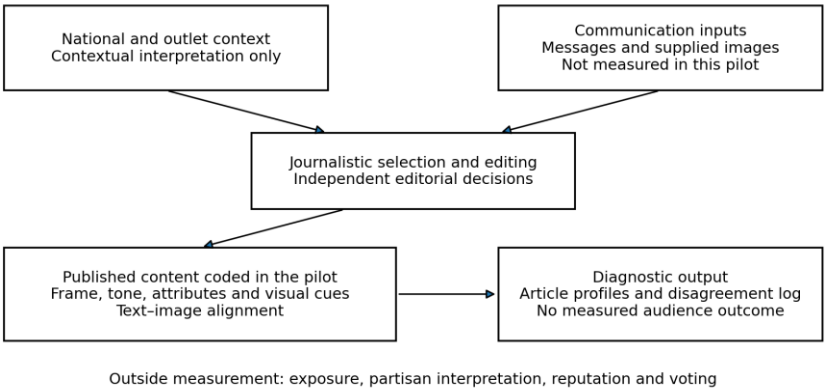


Figure 1: *CIRF Architecture and the Scope of the Empirical Pilot*

Note. The pilot evaluates category application and diagnostic feasibility within the published-content stage. Audience processes fall outside the measured system.

Publication, exposure, and interpretation are distinct. Selective exposure can shape which outlets people encounter; platform curation can determine which items become visible; and partisan commitments can shape how people interpret the same item. Cross-national and longitudinal research shows that fragmentation, selective exposure, and platform choice vary across information environments (Kubin & von Sikorski, 2021). Field experiments and systematic reviews also report conditional and sometimes limited effects of partisan or digital-media exposure (Levy, 2021; Lorenz-Spreen et al., 2023). These processes are boundary conditions rather than measured mediators in CIRF. Experimental evidence reinforces the need to avoid automatically assuming that changes in content exposure lead to changes in political attitudes: Nyhan et al. (2023) reduced exposure to like-minded Facebook sources without detecting corresponding changes in the preregistered attitudinal outcomes. This finding concerns a different setting, but illustrates why audience outcomes require direct measurement.

Methodology

Empirical design and relation to the research programme

We conducted a descriptive, comparative analysis of the project's primary pilot coding records. Contemporary content-analysis guidance stresses explicit units, transparent coding rules, human validation and careful alignment between theory and operational measures (Baden et al., 2022; Grimmer et al., 2022; Kuckartz & Rädiker, 2023). Agreement coefficients and descriptive counts were recalculated from the retained Pilot Coding Sheet tabs in the Coder A and Coder B review workbooks and cross-checked against the paired comparison workbook and doctoral research record, Section 3.13 and Appendices A–E. All 18 substantive variables matched the thesis entries for both coders. The workbooks

identify themselves as editorially standardised review copies; their retained source tabs, rather than the copy-edited notes, supplied the coding values. This was a reanalysis of existing records rather than a new coding round. The original file history and archived article captures were not independently verified.

The 16 pilot articles were excluded from the 240-article main corpus analysed in a related accepted paper on evaluative tone and candidate-image dimensions. This article focuses on pilot coding feasibility, multimodal diagnosis and instrument refinement. It does not reproduce the main-corpus findings. The related paper briefly reports the pilot tone coefficient of .810; the present analysis expands the pilot assessment across 18 variables.

Sampling frame and article selection

The pilot sampling frame was the project's 16-record register of professionally produced online election coverage from four Nigerian and four United States outlets. Two records were selected per outlet, giving eight per country. Nigerian records were published from 17 September to 31 October 2022; United States records were dated from 9 to 23 July 2024. These dates precede the project's main sampling periods. The pilot includes hard news, political analysis, and campaign features, including live-news pages. CNN Politics and Fox News Politics are news websites rather than newspapers, so the sample is described throughout as online news.

Articles were selected purposively to cover both countries, all eight outlets, and varied textual and visual presentations. The register documents the selected items rather than a complete population sampling frame. Social-media posts and candidate-controlled accounts were excluded. Five of the eight United States records concern the Trump rally shooting and its aftermath, limiting interpretation of country differences. Recent Nigerian election studies also report conflict, party competition and candidate-centred framing, which supports the relevance of these categories but does not make this pilot representative of Nigerian coverage (Abubakre, 2024; Nwoke, 2023; Oloyede & Owolabi, 2024). Live-news pages were treated as the retained article records; their changing content and the unavailability of archived versions for this reanalysis limit reconstruction of the exact page state at coding.

Table 1. *Pilot sample by outlet*

Country	Outlet	Records	Recorded dates
Nigeria	The Punch	2	29 October 2022
Nigeria	Vanguard	2	17 September and 31 October 2022
Nigeria	The Guardian Nigeria	2	1 and 18 October 2022
Nigeria	Premium Times	2	20 September and 30 October 2022
United States	The Washington Post	2	13 and 14 July 2024
United States	Fox News Politics	2	13 and 21 July 2024
United States	CNN Politics	2	13 and 14 July 2024
United States	The New York Times	2	9 and 23 July 2024

Note. Dates are those retained in the pilot register. Publication dates and live-page update dates are not assumed interchangeable. Each record is one unit, including articles referring to multiple candidates.

Coding procedure and operational definitions

The article record, including its available principal image, was the unit of analysis. Metadata and candidate references were recorded before the dominant frame, textual tone, candidate attributes, discursive indicators, visual features, alignment, and overall reconstructed image. Multi-candidate articles remained single records. Their article-level codes should not be interpreted as separate evaluations of every candidate mentioned. The primary record was retained for descriptive summaries; the second record was used to assess agreement and sensitivity to coder choice. No consensus scores were substituted before calculating reliability.

The pilot used 18 substantive variables. Dominant frame represented the article's organising perspective. Textual tone distinguished positive, negative, neutral, and mixed evaluation. Five candidate dimensions used negative, neutral and positive classifications. Five discursive indicators recorded lexical evaluation, attribution, metaphor or symbolism, narrative positioning and strategic sourcing. Visual variables recorded shot type, gaze, emotional display and symbolic context. Text–image alignment distinguished reinforcing, qualifying, contradictory, and absent-image codes. These distinctions respond to evidence that political imagery can convey emotion, personalization and stereotypes independently of textual evaluation

(Bossetta & Schmøkel, 2023; Dan et al., 2021). The overall reconstructed image was a final holistic judgement of positive, negative or ambivalent representation. It was not an independently observed audience response or a computed average of the component variables.

Coder A was the external human coder and Coder B was the researcher, as documented in the doctoral research record. The paired pilot records are dated 30 April and 7 May 2026, respectively, following a recorded briefing on 29 April. The thesis transcribes a signed declaration dated 30 June 2026 documenting independent coding before comparison. The verification sheets in the supplied review workbooks are unsigned templates, not additional signed evidence. The thesis declaration's comparison-date, compensation, and digital-tool fields remain incomplete, and historical workflow descriptions require clarification concerning assistance and human confirmation. The coefficients quantify agreement between the retained records; they do not independently establish coding provenance.

Agreement analysis and source quality

Observed agreement was calculated as identical paired classifications divided by 16. Unweighted Cohen's kappa was calculated for each variable as $\kappa = (Po - Pe)/(1 - Pe)$, where Po is observed agreement and Pe is expected agreement from the two records' marginal distributions (Cohen, 1960). Unweighted coefficients assess exact category agreement, including for the ordered candidate-dimension codes. The coefficients were independently recomputed from the supplied workbook entries and matched the comparison workbook's Agreement Summary. The supplied numeric sheet is formatted for SPSS import; no native SPSS output file was supplied for verification. The pilot's stated benchmarks were .75 for tone and overall image and .70 for the remaining variables. Meeting these developmental benchmarks does not establish construct validity or precise population reliability (Krippendorff, 2019; Neuendorf, 2017).

Two New York Times records, PSUS007 and PSUS008, were coded from headlines, summaries and screenshots without verified full article text. Their full-text-dependent judgements remain provisional. For PSNG002, Coder A's original tab records Photo Present = Yes and Photo Count = 1 alongside no-image shot and alignment codes. The reviewed tab documents a correction to No and 0 for internal consistency. This metadata correction does not change any of the 18 substantive codes or their agreement coefficients. However, the retained source note still states that the lead image was not directly confirmed. We therefore retain the original substantive categories for reproducibility and exclude all three records in the descriptive sensitivity analysis.

Frequencies are reported with explicit denominators. The 16-record summaries use the primary coding record; the 13-record sensitivity subset excludes PSNG002, PSUS007, and PSUS008. Country-difference significance tests were not conducted because of purposive selection, sparse categories, shared events, and the developmental purpose. Alignment counts are also compared across the two coders. Qualitative illustrations draw on the retained coding notes rather than a new coding round or fresh inspection of the original photographs.

Findings

Agreement across the pilot variables

All 18 coefficients reproduce to three decimal places from the paired records. Agreement ranged from 14/16 to 16/16, and κ ranged from .810 to 1.000 (Table 2). Thirteen variables had exact agreement in this small sample. Tone had two disagreements; gaze, emotional display, alignment, and overall image each had one. Across the 288 paired variable decisions, 282 agreed (97.9%). This pooled percentage is descriptive and does not replace variable-level coefficients or account for dependencies among codes within an article.

Table 2. *Recalculated pilot agreement before adjudication*

Variable	Agreement	Percent	κ
Dominant frame	16/16	100.0	1.000
Textual tone	14/16	87.5	0.810
D1 Leadership	16/16	100.0	1.000
D2 Integrity	16/16	100.0	1.000
D3 Viability	16/16	100.0	1.000
D4 Emotion	16/16	100.0	1.000
D5 Unity/Division	16/16	100.0	1.000
Overall reconstructed image	15/16	93.8	0.887

DS1 Lexical evaluation	16/16	100.0	1.000
DS2 Attribution	16/16	100.0	1.000
DS3 Metaphor	16/16	100.0	1.000
DS4 Narrative positioning	16/16	100.0	1.000
DS5 Strategic sourcing	16/16	100.0	1.000
Shot type	16/16	100.0	1.000
Gaze direction	15/16	93.8	0.891
Emotional display	15/16	93.8	0.891
Symbolic context	16/16	100.0	1.000
Text-image alignment	15/16	93.8	0.903

Note. Eighteen variables, 16 paired records per variable; coefficients use pre-adjudication values. Photo presence is metadata and is excluded. Perfect agreement in a small sample does not establish reliability beyond that sample.

The six disagreements are informative because they identify decision boundaries rather than a uniform instrument failure. In PSNG001, a numerical comparison of candidates' social-media following was read as neutral in the primary record and positive in the second. The same record differed in alignment and overall image. In PSUS004, the distinction between a factual announcement and favourable endorsement language produced another tone disagreement. Such cases support separating quoted evaluations, journalistic wording and the identity of the evaluated candidate before assigning a global tone.

Table 3. *Retained disagreements and their methodological implications*

Record and variable	Coder A	Coder B	Implication
PSNG001 tone	Neutral	Positive	Distinguish factual numeric advantage from evaluative wording.
PSUS004 tone	Neutral	Positive	Separate an announcement from favourable source quotations.
PSNG004 gaze	Averted	Face not visible	Unverified image access must not become a confident gaze inference.
PSUS008 emotional display	Anxious or defensive	Neutral or unreadable	Do not infer a stable emotional state from an ambiguous speech frame.
PSNG001 alignment	Qualifying	Reinforcing	Specify whether comparison concerns topic, candidate identity or evaluation.
PSNG001 overall image	Ambivalent	Positive	Retain component judgements before assigning the holistic profile.

Published frame and alignment profiles

The primary record classified seven articles as conflict/scandal, five as strategy/horse-race, and two each as issue/policy and character/leadership. These are pilot distributions, not estimates of national editorial tendencies. The concentration of conflict/scandal in the United States subset is inseparable from the event-focused selection of shooting coverage. Across both countries, the alignment record contained seven reinforcing, six qualifying, one contradictory, and two absent-image classifications (Table 4). The absent-image count includes the unresolved PSNG002 record.

Table 4. *Descriptive configurations and retrieval sensitivity*

Primary classification	Nigeria n = 8	US n = 8	All n = 16	Sensitivity n = 13
Issue/Policy	2	0	2 (12.5%)	2 (15.4%)
Character/Leadership	0	2	2 (12.5%)	2 (15.4%)
Strategy/Horse-Race	4	1	5 (31.2%)	4 (30.8%)
Conflict/Scandal	2	5	7 (43.8%)	5 (38.5%)
Reinforcing	2	5	7 (43.8%)	6 (46.2%)
Qualifying	4	2	6 (37.5%)	6 (46.2%)
Contradictory	0	1	1 (6.2%)	0 (0.0%)
Absent (no image)	2	0	2 (12.5%)	1 (7.7%)

Note. Frame categories form one distribution and alignment categories another. The sensitivity subset comprises seven Nigerian and six United States records and is not nationally balanced. It excludes PSNG002, PSUS007 and PSUS008 because of documented source-access limitations, not because of their coded outcomes. Percentages use the

column denominator; rounding may affect totals.

In the 13-record sensitivity subset, six articles had reinforcing and six qualifying alignments, while one retained the absent-image code. Thus, among the 12 image-coded records in this subset, reinforcing and qualifying relations were equally frequent. The single contradictory case in the full record does not survive exclusion because it is PSUS008, one of the articles lacking full-text verification. The evidence for qualification is therefore less dependent on the flagged records than the evidence for contradiction.

Coder choice also matters. In the full second-coder record, eight articles are reinforcing and five qualifying, compared with seven and six in the primary record; the contradictory and absent-image counts are unchanged. This shift follows the single alignment disagreement in PSNG001. It does not overturn the observation that reinforcement and qualification both occur, but it cautions against treating a one-record difference as a stable national or managerial finding.

Empirical illustrations of the diagnostic procedure

PSUS001 and PSUS002 illustrate why visual interpretation should be article-specific. Both Washington Post records concern the shooting and its aftermath. The retained notes describe a resilience-coded candidate photograph in PSUS001 and an aftermath image centred on a shoe or empty stage in PSUS002. Both were classified as qualifying their accompanying textual accounts. These notes demonstrate how similar event coverage can contain different visual cues; they do not establish how readers interpreted either image. The description of a non-candidate image in PSUS002 also shows why the codebook needs to distinguish an image being present from a candidate being visibly depicted.

PSNG001 provides a complementary Nigerian case. The article's comparative numerical premise was coded with the same strategy frame by both coders, yet tone, alignment and holistic image differed. The disagreement is empirically useful: agreement about topic and frame did not resolve whether the representation was favourable or merely comparative. A content-monitoring system that retained only one overall sentiment category would conceal this uncertainty. CIRF makes the separate decisions available for review without identifying either coder's interpretation as an observed audience reaction.

Both records classified PSUS008 as contradictory. The notes describe a Trump/Harris headline paired with a Biden photograph at a NATO event, which may indicate a candidate-identity or topic mismatch rather than opposing evaluative valence. Because full-text verification was incomplete, this case is excluded from the sensitivity subset. It identifies a need to distinguish referential mismatch from evaluative contradiction in subsequent coding.

Discussion

What the pilot supports

The pilot yields three findings. First, the paired records show high agreement across all 18 variables, providing preliminary evidence that the coding architecture can be applied consistently within this corpus. Second, reinforcing and qualifying text–image relationships both recur, while the only contradictory case depends on a record with incomplete source access. Third, the six disagreements locate specific interpretive boundaries involving numerical advantage, attributed praise, visible affect, candidate identity and holistic evaluation. Together, these results answer RQ1–RQ3 and demonstrate why CIRF retains component decisions and a disagreement log instead of reducing candidate representation to one sentiment score. This approach is consistent with recent visual-political-communication research that treats personalization, emotional display and image selection as separable dimensions (Farkas, 2023).

The evidence supports operational feasibility rather than full validation. Intercoder agreement addresses the consistency of classification, while construct validity concerns whether each category captures its intended concept. The provisional PSUS008 classification illustrates the difference: the coders agreed, but incomplete source access prevents a confident conclusion about whether the case represents evaluative contradiction or referential mismatch. The overall reconstructed image also depends on the component judgements and cannot independently validate them. A stronger validation design would combine independent recoding of complete archived articles, tests of revised decision rules and, where audience claims are made, separate reception measures.

Implications for communication management

CIRF can be used as an input/output content-management tool by recording what a team supplies, comparing it with what an outlet publishes, and retaining the resulting content profile. The present pilot

tests only the profiling component. Research on political social-media marketing and campaign communication shows that political actors actively manage messages across platforms, while journalists and platforms still shape their circulation and presentation (Abid et al., 2023; Aruguete et al., 2021; Fisher et al., 2024). In a future paired-input study, clear captions and accurate visual provenance may reduce avoidable ambiguity, while separating factual statements from endorsement language may improve the clarity of the materials supplied. These are plausible applications for evaluation, not effects demonstrated by the pilot. Journalists remain free to select another image, use a different frame, or omit the material.

A practical monitoring procedure would first verify the article version and image, then code frame and tone separately, review alignment, and record uncertain decisions. A qualifying image should prompt inspection rather than an automatic judgement of communication failure. Qualification can convey legitimate complexity. Likewise, a correction request should concern a verifiable factual or attribution error; an unfavourable but accurate editorial judgement is not an error established by CIRF. The framework may improve diagnostic consistency and help identify avoidable presentation risks, but neither benefit guarantees favourable coverage or public approval.

Published-content measures should remain separate from reach, recall, trust, candidate preference and voting indicators. Selective exposure determines whether an item is encountered; algorithmic curation can change its visibility; and partisan interpretation can alter its meaning for different readers. Recent studies connect platform affordances, partisan sharing and emotional political communication to different patterns of engagement (Al-Rawi, 2021; Banks et al., 2021; Gerbaudo et al., 2023; Osmundsen et al., 2021). They do not support treating one published content profile as a deterministic voter response. The pilot measures none of these processes. Evaluation of reputational or electoral outcomes would require linked audience data, an appropriate comparison design and evidence about exposure, rather than inference from a positive content profile alone.

Instrument refinements and limitations

The pilot supports several concrete refinements. Tone rules need examples distinguishing numerical advantage, direct authorial evaluation and quoted praise. Visual coding needs separate values for confirmed absence, inaccessible imagery, and non-candidate images. Alignment needs separate checks for candidate identity, topic, and evaluative direction. Emotional-display rules should allow an unreadable category when a single frame does not support a confident interpretation. Recent multimodal research similarly calls for clearer links between mode-specific features and the relationships among text, image and context (Dimitrova et al., 2026; Geise & Xu, 2025; Xu, 2025). The thesis documents subsequent clarification of tone and image-tone rules, addition of prominence indicators, separation of multiple candidate mentions from focal-candidate coding, and decision trees for frame, tone, and alignment. The additional retrieval and referential distinctions identified here should be tested in another independent coding round before being described as validated refinements.

The sample is small, purposive, and concentrated around particular events. Equal country and outlet counts do not create representativeness or matched campaign phases. Multi-candidate stories complicate the evaluation target; live-page changes, incomplete text access, and uncertain imagery constrain source reconstruction. Some rare categories have only one observation, and point estimates of kappa are insufficient to establish stable reliability beyond these records. The remaining 13-record subset is a sensitivity check, not a newly verified gold-standard corpus. It removes known retrieval problems but cannot establish that every remaining judgement is correct.

The provenance limitations described in the Coding Procedure and Operational Definitions subsection qualify interpretation of the agreement coefficients. Independent recoding of archived article versions, with dated pre-comparison records and complete tool disclosures, would strengthen further assessment. Prominence, independent visual valence, input-to-output change and audience outcomes remain untested components of the broader framework.

Conclusion

This empirical pilot shows how CIRF can organise frame, tone, candidate attributes, discourse, visual cues and text–image alignment within a single auditable procedure. The 16 paired records produced high agreement, but the disagreement and sensitivity analyses also identified precise codebook needs: clearer rules for factual advantage and attributed praise, distinct values for inaccessible and non-candidate imagery, and separate tests of referential and evaluative alignment. CIRF can therefore support systematic

monitoring of published candidate representation and transparent review of uncertain coding decisions. The evidence remains limited to a small, purposive content sample. Independent recoding of complete source archives, followed by larger, more representative applications, is required before claiming broad validity. Audience exposure, interpretation, reputation and electoral behaviour remain separate empirical questions.

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Conflict of interest: The authors declare no conflict of interest.

Availability of data and materials: Pilot article identifiers, paired coding entries, and decision notes are retained in the doctoral research record and supplied review workbooks. The reported calculations can be reproduced from the retained coding tabs. Materials may be requested from the corresponding author, subject to copyright restrictions on news content and research-record governance.

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