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Users' perceptions of algorithmic communicative agency in the United Arab Emirates: An exploratory study of the impact of recommendation and trending systems on digital public discourse

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ABSTRACT

Digital platforms serve as crucial spaces for public communication today, influenced heavily by algorithmic recommendation systems that determine visibility and engagement. This study focuses on user perceptions of algorithmic communicative agency within the context of the United Arab Emirates, utilizing an exploratory survey approach with samples from general users and digital content creators. Rather than directly auditing algorithms, it emphasizes perceived influence, as users' beliefs about algorithms often have a greater impact on their trust and engagement than their technical understanding. The survey assessed various dimensions, including perceived agency, diversity of exposure, polarization, and the credibility of algorithmically generated content. Results show that both user groups see platform algorithms as active agents affecting visibility and discourse. Increased perceptions of algorithmic agency correlate with reduced diversity of information, heightened polarization, and greater conformity in expression, alongside rising concerns about toxic interactions. The credibility associated with algorithmically promoted content is viewed ambivalently, revealing a complex relationship between perceived legitimacy and concerns about bias. Content creators, in particular, feel a stronger impact from algorithms regarding their visibility and reach. This research underscores the need for user-centered insights in discussions about platform regulation and digital literacy, laying groundwork for future expansive research on algorithmic influence in the Arab public sphere.

KEYWORDS: algorithmic communicative agency, digital public sphere, algorithmic governance, social media platforms, user perceptions, United Arab Emirates

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1. Introduction

Digital platforms have become central arenas for public discourse in contemporary societies. In the United Arab Emirates, high levels of internet penetration and daily engagement with platforms such as YouTube, TikTok, Instagram, and X have positioned algorithmic recommendation and trending systems as key mediators of visibility, attention, and participation in public communication. Research on platform governance demonstrates that algorithmic systems increasingly shape what users encounter, not only by filtering information but by structuring patterns of exposure and salience (Gillespie, 2018; Stark et al., 2020).

Unlike traditional editorial gatekeeping, platform algorithms operate through largely opaque ranking and personalization mechanisms. These systems actively reorder public attention by prioritizing engagement, recirculating popular narratives, and amplifying emotionally charged or controversial content (Metzler et al., 2024). As a result, algorithms function as communicative actors within the digital public sphere rather than neutral technical tools.

A growing body of empirical research has examined the social and political implications of algorithmic recommendation systems. Studies of YouTube and other platforms show that recommendation mechanisms can influence patterns of polarization, exposure diversity, and perceived social consensus (Ludwig, 2023; van der Breggen et al., 2025). Other work suggests that even short-term exposure to algorithmic curation may shape users' perceptions of ideological balance and issue salience, regardless of measurable behavioral change (Liu et al., 2025).

Despite this growing international literature, empirical research on users' perceptions of algorithmic influence in Arab contexts remains limited. Existing studies tend to focus on regulatory frameworks or technical aspects of content moderation, leaving everyday user interpretations underexplored. In the Emirati context, where digital platforms operate within a highly connected and regulated media environment, understanding how users perceive algorithmic influence is particularly important. This study addresses this gap by examining Emirati users' and content creators' perceptions of algorithmic communicative agency through an exploratory survey-based design. Rather than auditing platform algorithms directly, the study focuses on how users interpret the effects of recommendation and trending systems on diversity, polarization, credibility, and expressive behavior. Prior research indicates that such perceptions play a crucial role in shaping trust, self-censorship, and engagement in digital public discourse (Swart, 2021; Zarouali et al., 2021).

By providing exploratory empirical evidence from the UAE, this study contributes to ongoing debates on algorithmic governance and the transformation of the digital public sphere, while laying the groundwork for future large-scale confirmatory research in the region.

2. Theoretical Framework and Related Literature

2.1 Algorithms and the Digital Public Sphere

Public sphere theory conceptualizes mediated spaces as arenas for opinion formation and collective debate. In platform-based environments, however, visibility is no longer shaped primarily by editorial judgment but by algorithmic ranking and personalization systems. Algorithms determine which content surfaces in users' feeds and which topics are framed as trending, thereby restructuring the conditions of public discourse (Gillespie, 2018; Knight First Amendment Institute, 2023).

Recent research suggests that algorithmic curation can narrow exposure diversity and intensify perceptions of polarization, particularly when engagement-driven metrics prioritize sensational or divisive content (Ludwig, 2023; van der Breggen et al., 2025). These dynamics raise concerns about the fragmentation of public discourse and the erosion of shared informational spaces. Rather than facilitating deliberation across differences, algorithmic visibility structures may reinforce selective exposure and amplify already dominant narratives.

In this context, algorithms function as infrastructural gatekeepers whose influence extends beyond content selection to the organization of public attention. By shaping which issues are encountered frequently and which remain peripheral, algorithmic systems reconfigure the boundaries of the digital public sphere and the conditions under which collective debate unfolds.

2.2 Algorithmic Governance and the Attention Economy

Algorithmic governance refers to the indirect regulation of behavior through automated systems rather than explicit rules. Recommendation and trending algorithms allocate visibility by optimizing engagement metrics such as watch time, clicks, and interaction intensity. This logic places algorithms at the core of the attention economy, where public relevance is increasingly determined by commercial optimization rather than normative deliberation (Metzler et al., 2024).

Empirical audits of recommendation systems demonstrate that algorithmic exposure can influence perceived legitimacy and credibility of content, even when users are aware of algorithmic mediation (Haroon et al., 2023; Ibrahim et al., 2023). Trending mechanisms, in particular, signal collective importance and act as cues that shape users' judgments about what topics matter and which viewpoints are socially salient.

As a result, algorithmic governance operates through subtle but powerful forms of communicative regulation.

Rather than enforcing compliance through explicit restrictions, platforms guide user behavior by shaping attention, signaling popularity, and structuring incentives for engagement.

2.3 Perceived Algorithmic Communicative Agency

Building on research in algorithm awareness and media literacy, this study adopts the concept of perceived algorithmic communicative agency. This concept captures users' beliefs about the extent to which algorithms actively shape content visibility, discourse dynamics, and expressive norms. Importantly, these perceptions do not depend on technical accuracy but on users' lived experiences of platform interaction (Swart, 2021; Zarouali et al., 2021).

Studies demonstrate that higher levels of perceived algorithmic control are associated with reduced trust, increased expressive conformity, and heightened perceptions of polarization (Dogruel et al., 2022; Huang & Liu, 2025). Users who believe that algorithms strongly shape discourse may adapt their behavior through self-censorship or alignment with dominant narratives, even in the absence of explicit moderation.

By focusing on perceived rather than actual algorithmic influence, this approach foregrounds interpretation as a central mechanism through which algorithmic systems shape public communication. Perceptions of algorithmic agency mediate how users engage with content, evaluate credibility, and decide whether and how to participate in digital discourse.

2.3.1 Algorithmic Visibility and Perceived Social Reality

Beyond shaping individual content exposure, algorithmic systems play a central role in constructing what users perceive as social reality. Recommendation and trending mechanisms do not merely suggest content but signal relevance, popularity, and legitimacy. When topics repeatedly appear in trending lists or are algorithmically promoted, users may interpret them as widely shared concerns or dominant public opinions, regardless of their actual representativeness.

Research on perceived social consensus suggests that algorithmic signals function as cues that influence users' judgments about what others think, care about, or support. In digital environments, visibility often becomes equated with importance, and repetition with legitimacy. As a result, algorithmic ranking can indirectly shape users' perceptions of majority opinion, normative boundaries, and acceptable viewpoints.

From this perspective, perceived algorithmic communicative agency extends beyond content filtering to include the construction of symbolic hierarchies of relevance. Users who believe that algorithms actively prioritize certain narratives may internalize these hierarchies, adjusting their attention, opinions, and expressive behavior accordingly. This dynamic underscores the communicative power of algorithms as systems that mediate not only information flow but also shared understandings of public significance.

3. Methodology

3.1 Research Design

This study adopts an exploratory, survey based field research design aimed at examining users' perceptions of algorithmic communicative agency in the United Arab Emirates. Given the limited empirical work on how users in Arab contexts interpret algorithmic recommendation and trending systems, an exploratory approach is methodologically appropriate. Such designs are particularly suited to identifying patterns, relationships, and perceptual tendencies in emerging research domains without imposing strong confirmatory assumptions (Swart, 2021; Zarouali et al., 2021).

Rather than auditing or reverse engineering platform algorithms, the study focuses on perceived algorithmic influence. This choice reflects prior research indicating that users' beliefs about algorithmic operation often shape engagement, trust, and expressive behavior more directly than technical knowledge of algorithmic processes (Dogruel et al., 2022; Huang & Liu, 2025).

3.2 Participants and Sampling

The study is based on two distinct samples drawn from the United Arab Emirates.

The first sample consists of general users of digital platforms, defined as individuals aged 18 years or older who use at least one major social media platform on a daily basis. A total of 78 valid responses were collected for this group. The second sample consists of content creators, defined as individuals who regularly publish original content on digital platforms such as YouTube, TikTok, Instagram, X, or similar platforms. This group includes both micro creators and more established creators. A total of 37 valid responses were collected.

Both samples were recruited using purposive and snowball sampling techniques through online distribution of survey links across university networks, professional contacts, and social media groups. While the sample sizes do not allow for confirmatory statistical modeling, they are appropriate for exploratory analysis aimed at identifying perceptual trends and generating hypotheses for future research (Swart, 2021).

3.3 Data Collection Procedure

Data were collected using two structured online questionnaires administered via an electronic survey platform. Separate but conceptually aligned questionnaires were designed for general users and content creators in order to capture role specific experiences within the platform ecosystem.

Participation was voluntary, and all respondents were informed about the purpose of the study, the anonymity of their responses, and the exclusive use of the data for academic research. No personally identifiable information was collected. These procedures align with established ethical standards for survey based research in digital communication studies (Knight First Amendment Institute, 2023).

3.4 Measurement Instruments

Both questionnaires were constructed around six core perceptual dimensions derived from the literature on algorithmic governance, recommendation systems, and digital public discourse. All items were measured using five point Likert scales ranging from strongly disagree to strongly agree.

3.4.1 Perceived Algorithmic Communicative Agency

Perceived algorithmic communicative agency refers to respondents' beliefs about the extent to which platform algorithms actively shape content visibility, recommendation processes, and discourse dynamics. Measurement items were adapted conceptually from research on algorithm awareness and perceived algorithmic influence (Swart, 2021; Zarouali et al., 2021). Items assessed perceptions of algorithmic control over content selection, feed composition, and audience reach.

3.4.2 Perceived Diversity

Perceived diversity captures respondents' evaluations of exposure to varied viewpoints, sources, and narratives within their platform feeds. This dimension reflects concerns raised in the literature regarding algorithmic narrowing of exposure and selective visibility (Ludwig, 2023; van der Breggen et al., 2025).

3.4.3 Perceived Polarization

Perceived polarization measures respondents' perceptions of ideological division, confrontational discourse, and the prevalence of opposing camps in platform interactions. This construct is grounded in research linking algorithmic curation to perceived polarization and conflict intensification (Ludwig, 2023; Metzler et al., 2024).

3.4.4 Perceived Credibility

Perceived credibility refers to respondents' trust in platform mediated content, including trending topics and recommended materials. Prior studies show that algorithmic ranking can influence perceived legitimacy and epistemic trust even in the absence of explicit editorial endorsement (Haroon et al., 2023; Ibrahim et al., 2023).

3.4.5 Expressive Conformity

Expressive conformity captures self reported tendencies toward self censorship, cautious expression, or alignment with perceived dominant discourse. This dimension is informed by research on self censorship and expressive adaptation in algorithmically mediated environments (Burnett et al., 2022; Dogruel et al., 2022).

3.4.6 Exposure to Toxicity

Exposure to toxicity assesses respondents' perceptions of hostile, abusive, or aggressive communication in platform interactions. This dimension reflects findings from studies on toxic discourse and its behavioral consequences in digital spaces (Zoizner, 2025; Ahmad et al., 2024).

3.5 Data Analysis Strategy

Given the exploratory nature of the study and the sample size, data analysis focused on descriptive and correlational techniques rather than confirmatory modeling.

The analysis proceeded in four stages. First, descriptive statistics were calculated to summarize demographic characteristics and overall response distributions. Second, internal consistency of the perceptual scales was assessed using Cronbach's alpha. While exploratory studies tolerate moderate reliability levels, alpha values approaching or exceeding 0.70 were considered acceptable (Dogruel et al., 2022). Third, composite indices were constructed by averaging item scores within each perceptual dimension. Fourth, Pearson correlation analyses were conducted to examine associations between perceived algorithmic communicative agency and other key dimensions such as perceived diversity, polarization, credibility, expressive conformity, and exposure to toxicity. These analyses were intended to identify relational patterns rather than causal effects

(Swart, 2021; Huang & Liu, 2025).
All analyses were conducted using standard statistical software.

3.6 Methodological Limitations

As an exploratory study, the research is subject to several limitations. The non probabilistic sampling strategy limits generalizability beyond the study sample. The reliance on self reported perceptions may introduce subjective bias, although such perceptions are central to the study's conceptual framework. Finally, the sample size does not permit confirmatory factor analysis or structural equation modeling. These limitations are addressed in the discussion section, where directions for future large scale research are outlined.

4. Results

4.1 Sample Characteristics

The study analyzed survey responses from two samples based in the United Arab Emirates. The general users sample consisted of 78 respondents, while the content creators sample included 37 respondents. Participants in both groups represented a range of age categories, educational levels, and emirates of residence, reflecting diverse patterns of platform engagement within the UAE.

Most respondents in both samples reported daily use of at least one major digital platform. YouTube, Instagram, TikTok, and X were identified as the most frequently used platforms across both groups. Average daily usage ranged from moderate to high, indicating sustained exposure to algorithmically curated content and trending mechanisms. This level of engagement provides an appropriate empirical basis for examining perceptions of algorithmic influence on digital public discourse.

4.2 Descriptive Statistics of Key Constructs

Across both samples, respondents reported relatively high perceptions of algorithmic involvement in content selection and visibility. Items measuring perceived algorithmic communicative agency showed consistently elevated mean values, suggesting that users largely believe platform algorithms play a decisive role in shaping what they encounter online. This perception was particularly pronounced in relation to automated content selection, feed composition, and the prioritization of trending topics. Perceived diversity received more moderate evaluations. While some respondents reported exposure to multiple viewpoints and sources, many indicated that content feeds tend to recycle similar narratives or dominant perspectives. This pattern suggests a perceived tension between personalization and diversity within platform environments.

Perceived polarization yielded relatively high scores in both samples. Respondents frequently reported encountering sharp divisions, confrontational discussions, and opposing camps in comment sections and public debates. These perceptions align with prior research linking algorithmic amplification to intensified perceptions of conflict and division (Ludwig, 2023; Metzler et al., 2024).

Perceived credibility of platform mediated content showed mixed results. While some respondents expressed trust in recommended or trending content, others indicated skepticism toward the reliability and neutrality of algorithmically promoted materials. This ambivalence reflects existing findings that algorithmic ranking can simultaneously enhance perceived legitimacy while raising concerns about manipulation or bias (Haroon et al., 2023; Ibrahim et al., 2023).

Measures of expressive conformity indicated a noticeable tendency toward cautious self expression. Many respondents reported adapting their language, avoiding sensitive topics, or aligning with dominant discourse to reduce the risk of reduced visibility or negative reactions. This tendency was more pronounced among content creators, who are directly affected by algorithmic reach and engagement metrics.

Exposure to toxic or hostile interactions was also reported at moderate to high levels, particularly in relation to comment sections and trending discussions. Respondents frequently noted aggressive language, personal attacks, and emotionally charged exchanges, consistent with prior research on toxic dynamics in algorithmically amplified environments (Zoizner, 2025; Ahmad et al., 2024).

4.3 Internal Consistency of the Scales

Internal consistency analyses indicated acceptable reliability levels for the exploratory nature of the study. Composite indices constructed for perceived algorithmic communicative agency, perceived polarization, expressive conformity, and exposure to toxicity demonstrated satisfactory internal coherence. Measures of perceived diversity and perceived credibility showed moderate reliability, which is consistent with their multidimensional and context sensitive nature in prior perception based studies (Dogruel et al., 2022; Zarouali et al., 2021).

These results support the use of the constructed indices for exploratory correlational analysis.

4.4 Correlational Analysis

Correlation analyses revealed clear and theoretically meaningful relationships between perceived algorithmic communicative agency and other key dimensions of digital public discourse.

Higher perceptions of algorithmic communicative agency were associated with lower perceived diversity of viewpoints. Respondents who believed that algorithms strongly shape content visibility were more likely to report exposure to repetitive narratives and limited perspectives. This finding is consistent with research suggesting that personalization and engagement driven ranking may reduce perceived diversity (Ludwig, 2023; van der Breggen et al., 2025).

Perceived algorithmic communicative agency was positively associated with perceived polarization. Users who viewed algorithms as powerful communicative actors tended to perceive digital discourse as more divided and confrontational. This relationship supports theoretical claims that algorithmic amplification of high engagement content may intensify perceptions of social and ideological conflict (Metzler et al., 2024).

A positive association was also observed between perceived algorithmic communicative agency and expressive conformity. Respondents who perceived stronger algorithmic influence reported greater tendencies toward self-censorship, cautious expression, and strategic adaptation to platform norms. This finding aligns with prior studies showing that perceived algorithmic control can shape expressive behavior even in the absence of explicit moderation (Burnett et al., 2022; Dogruel et al., 2022).

Finally, perceived algorithmic communicative agency was positively related to perceived exposure to toxic discourse. Respondents who viewed algorithms as amplifying certain content types were more likely to report encountering hostile or aggressive interactions, suggesting that algorithmic visibility cues may indirectly shape the tone of public discussions (Zoizner, 2025).

4.5 Interpretive Patterns across User Groups

While the exploratory design does not permit formal statistical group comparisons, clear interpretive patterns emerged between general users and content creators. Content creators consistently reported stronger perceptions of algorithmic control over visibility, reach, and engagement. This heightened sensitivity reflects creators' direct dependence on algorithmic systems for audience access and professional sustainability.

Among content creators, stronger associations were observed between perceived algorithmic communicative agency and expressive conformity. The anticipation of algorithmic penalties, reduced reach, or platform sanctions appeared to encourage strategic self-regulation, topic avoidance, and stylistic adaptation. These dynamics suggest that algorithmic governance may exert a disciplining effect on content production by shaping incentives rather than imposing explicit restrictions.

General users, by contrast, appeared more ambivalent in their evaluations. While many acknowledged algorithmic influence, their perceptions of credibility and diversity were less consistently aligned with algorithmic agency. This difference highlights the importance of positionality within the platform ecosystem. Users who primarily consume content may experience algorithmic mediation as background infrastructure, whereas content creators encounter it as a more immediate and consequential force.

4.6 Summary of Key Findings

Overall, the results indicate that users in the UAE perceive platform algorithms as active communicative agents that shape visibility, discourse dynamics, and expressive norms. These perceptions are systematically related to evaluations of diversity, polarization, credibility, and participation in digital public discourse. While the findings are exploratory, they provide empirically grounded insights into how algorithmic systems are interpreted and negotiated within the Emirati digital public sphere.

5. Discussion

This exploratory study set out to examine how users in the United Arab Emirates perceive the communicative agency of platform algorithms and how these perceptions relate to key dimensions of digital public discourse, including diversity, polarization, credibility, expressive conformity, and exposure to toxicity. The findings offer several theoretically and contextually significant insights that contribute to ongoing debates on algorithmic governance and the transformation of the digital public sphere.

5.1 Algorithms as Perceived Communicative Actors

The results indicate a strong perception among both general users and content creators that algorithms play an active role in shaping content visibility and discourse dynamics. This perception supports arguments in the literature that platform algorithms are increasingly experienced not as neutral infrastructures but as communicative actors that intervene in public communication (Gillespie, 2018; Stark et al., 2020).

In the Emirati context, where digital platforms are deeply integrated into everyday communication, algorithms

appear to be perceived as central organizers of public attention. Respondents' beliefs about algorithmic control over feeds, recommendations, and trending topics suggest that users attribute agency to automated systems in ways that parallel traditional editorial gatekeeping. This finding reinforces the conceptual relevance of algorithmic communicative agency as an analytical lens for understanding platform mediated public discourse.

5.2 Perceived Diversity and the Experience of Repetition

One of the most salient findings of the study is the negative association between perceived algorithmic communicative agency and perceived diversity of viewpoints. Respondents who attributed stronger influence to algorithms were more likely to experience their content environments as repetitive and limited in perspective. This perception resonates with concerns raised in prior research regarding personalization and engagement driven ranking, which may privilege familiar or popular narratives at the expense of marginal or dissenting voices (Ludwig, 2023; van der Breggen et al., 2025).

Importantly, this finding reflects perceived rather than objectively measured diversity. However, from a communicative perspective, perceived diversity is itself consequential. Users' evaluations of exposure shape trust in platforms, willingness to engage with opposing views, and assessments of the openness of the digital public sphere. In this sense, even if objective diversity were present, perceptions of algorithmic narrowing may still undermine deliberative engagement.

5.3 Polarization as a Perceptual Outcome of Algorithmic Visibility

The positive relationship between perceived algorithmic communicative agency and perceived polarization further underscores the role of algorithms in shaping how users interpret the tone and structure of public discourse. Respondents who believed that algorithms actively promote certain content types were more likely to describe digital discussions as divided, confrontational, and emotionally charged.

This finding aligns with theoretical claims that engagement optimized systems may amplify content that provokes strong reactions, thereby intensifying perceptions of social and ideological conflict (Metzler et al., 2024; Ludwig, 2023). Even when actual ideological positions remain stable, repeated exposure to polarized discourse may lead users to perceive society as more fragmented than it is. In the Emirati context, where public discourse is shaped by both global platform dynamics and local regulatory frameworks, such perceptions may have important implications for social cohesion and trust.

5.4 Credibility and Algorithmic Legitimacy Signals

Perceived credibility emerged as a more ambivalent dimension in the findings. While some respondents reported trusting recommended or trending content, others expressed skepticism toward algorithmically promoted materials. This duality reflects a broader tension identified in the literature: algorithmic ranking can simultaneously enhance perceived legitimacy by signaling popularity and undermine trust by raising concerns about manipulation or bias (Haroon et al., 2023; Ibrahim et al., 2023). From a communicative standpoint, this ambivalence suggests that algorithms function as contested legitimacy brokers. Users appear to recognize the power of algorithmic signals while remaining uncertain about their normative implications. This tension may shape how users evaluate information, negotiate credibility, and decide which sources to trust in platform mediated environments.

5.5 Expressive Conformity and Indirect Regulation of Speech

One of the most consequential findings of the study concerns expressive conformity. The positive association between perceived algorithmic communicative agency and self-reported tendencies toward cautious expression and self-censorship indicates that algorithms may regulate speech indirectly by shaping expectations and incentives rather than imposing explicit restrictions.
This dynamic aligns with prior research showing that perceived algorithmic surveillance and ranking can discipline expression, encouraging users to align with dominant narratives or avoid sensitive topics (Burnett et al., 2022; Dogruel et al., 2022). Among content creators, this effect was particularly pronounced, reflecting their heightened dependence on algorithmic reach and visibility. In this sense, algorithmic governance operates as a form of soft power that structures expressive norms without overt coercion.

5.6 Toxicity and the Emotional Texture of Algorithmic Discourse

The positive relationship between perceived algorithmic communicative agency and exposure to toxic discourse suggests that users associate algorithmic amplification with the visibility of hostile or aggressive interactions. This perception is consistent with research indicating that emotionally charged and confrontational content may be disproportionately amplified due to its engagement potential (Zoizner, 2025; Ahmad et al., 2024).

From a public sphere perspective, the perceived prevalence of toxicity may discourage participation, reinforce expressive conformity, and erode trust in digital discourse. Users who associate algorithms with toxic amplification may withdraw from public debate or limit their engagement to safer, less controversial spaces.

5.7 Implications for the Digital Public Sphere in the UAE

Taken together, the findings suggest that algorithms are widely perceived in the UAE as active communicative agents that shape not only content exposure but also the norms, tone, and perceived structure of public discourse. These perceptions have implications for how the digital public sphere functions in a highly connected yet regulated media environment. Rather than operating as neutral facilitators of expression, platform algorithms appear to be interpreted as forces that structure attention, signal legitimacy, and indirectly regulate participation. Understanding these perceptions is essential for debates on platform governance, media literacy, and digital policy in the UAE. User centered insights can complement regulatory and technical approaches by highlighting how algorithmic systems are experienced and negotiated in everyday communication.

6. Limitations and Future Research

As an exploratory study, this research is subject to several limitations that should be acknowledged. First, the use of non-probabilistic sampling methods limits the generalizability of the findings beyond the study participants. While the sample sizes are appropriate for exploratory analysis, they do not permit population level inference. Future studies should employ stratified or probability based sampling to enhance representativeness across different demographic and professional groups in the UAE. Second, the study relies on self-reported perceptions rather than direct measurements of algorithmic behavior. Although this may introduce subjective bias, it is also conceptually justified, as perceptions of algorithmic influence are central to the study's theoretical framework. Users' beliefs about algorithmic systems shape trust, engagement, and expressive behavior regardless of technical accuracy. Future research could combine perception based surveys with computational audits or experimental exposure designs to compare perceived and actual algorithmic effects (Haroon et al., 2023; Liu et al., 2025).

Third, the cross sectional design does not allow for causal inference. Longitudinal research could examine how perceptions of algorithmic communicative agency evolve over time, particularly in response to platform policy changes, major public events, or shifts in platform design. Experimental designs could further isolate the effects of recommendation and trending cues on perceived diversity, polarization, and credibility.

Finally, while this study focuses on the UAE as a single national context, future research could adopt comparative designs across Arab countries to examine how regulatory environments, cultural norms, and media systems shape perceptions of algorithmic influence. Qualitative interviews with users and content creators could also provide deeper insight into lived experiences of algorithmic governance.

7. Conclusion

This study provides exploratory empirical evidence on how users in the United Arab Emirates perceive the communicative agency of platform algorithms and how these perceptions relate to key dimensions of digital public discourse. The findings suggest that algorithms are widely perceived as active agents shaping visibility, diversity, polarization, credibility, and expressive behavior within platform mediated environments. By foregrounding user perceptions, the study contributes to a growing body of research that conceptualizes algorithmic power not only as a technical phenomenon but as a socially interpreted and behaviorally consequential force. Perceived algorithmic communicative agency emerges as a useful analytical lens for understanding how recommendation and trending systems restructure public attention and participation in the digital public sphere. The study also highlights the importance of incorporating user centered perspectives into debates on platform governance, media literacy, and digital policy. In highly connected contexts such as the UAE, understanding how algorithms are experienced by users and content creators is essential for assessing their broader social and communicative implications.
While exploratory in scope, the findings lay the groundwork for future large scale and comparative research on algorithmic governance in the Arab world. By documenting how algorithmic systems are interpreted and negotiated in everyday digital communication, this study contributes to ongoing discussions on the future of public discourse in algorithmically mediated societies.

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