Motivation, Attention, and Visual Platform Design: How Moral Contagions Spread on TikTok and Instagram in the 2024 United States Presidential Election

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Abstract

Visual social media platforms have become primary venues for political discourse, yet we know little about how moralization operates differently across platforms and topics. Analyzing 2,027,595 TikToks and 1,126,972 Instagram posts during the 2024 US presidential election, we demonstrate that issues are not necessarily inherently moralized, but a product of audience demographics, platform architecture, and partisan framing. Using temporal supply-demand analysis and moral foundations scoring (eMFD), we examine the dynamics of key electoral issues. Three key findings emerge. First, moralization patterns diverge dramatically by platform: TikTok's algorithm enabled viral spread of moralized abortion and immigration content despite lower supply, while Instagram amplified economic discourse that aligned supply and demand. Second, traditionally "pragmatic" economic issues became moralized, where cryptocurrency discourse invoked loyalty and authority foundations more strongly than any other topic, framing regulation as government overreach. Third, platforms responded to different events: TikTok surged after Harris's nomination across all topics (96% reduction in supply volatility), while Instagram spiked around cryptocurrency policy developments. Semantic network analysis reveals TikTok's circular topology enables cross-cutting exposure while Instagram's fragmented structure isolates Harris from economic discourse. These findings demonstrate that understanding political moralization requires examining platform-specific ecosystems where architecture, demographics, and content strategy interact to determine which issues get moralized and how moral content spreads.

Introduction

Computational approaches to political language typically treat social judgments as fixed properties of text. This ignores a crucial distinction between what a text encodes and how it is perceived. Political moralization presents a revealing case, because what registers as moral to one person may not register as moral to another. The perception of an issue as morally charged is conditioned on the perceiver's identity and values, not solely on characteristics of the language. For instance in politics, Moral Foundations Theory formalizes this asymmetry, where liberals prioritize care and fairness, while conservatives draw more evenly on loyalty, authority, and sanctity (Graham, Haidt, and Nosek 2009), which lead to asymmetric information diffusion (Chang et al. 2025).

In tandem, the 2024 US presidential election unfolded during a period of growing ideological polarization and increased social media engagement (Brenan 2025), with visual-first platforms—TikTok and Instagram—rivaling or exceeding text-based networks as primary venues for political engagement (Chang, Richardson, and Ferrara 2022). These platforms differ not only in algorithmic design, where TikTok surfaces posts regardless of creator following, while Instagram routes content through established follower networks, but also in the partisan and demographic composition of their user bases, creating distinct moral-perceptual contexts. Research on "moral contagions" has found that moralized messages spread faster and wider than neutral information, particularly when evoking emotions like anger and disgust (Brady, Crockett, and Van Bavel 2020; Brady et al. 2017). Visual media should theoretically accelerate this process, yet few studies have compared moralization across platforms.

In this paper, we investigate three issues central to the 2024 election—abortion, immigration, and the economy—which vary in their traditional association with moral framing (Brenan 2025; Pew Research Center 2024). Analyzing 2,027,595 TikToks and 1,126,972 Instagram posts from January through November 2024, we examine supply-demand dynamics (Munger and Phillips 2022; Zha and Chang 2025), moral foundations, and semantic network structure.

Three key findings emerge, each illuminating how partisan identity and platform context jointly shape moral perception. First, moralization patterns diverge by platform. TikTok enabled viral spread of moralized abortion and immigration content despite lower supply, while Instagram amplified economic discourse. Second, traditionally "pragmatic" economic issues became *perceived as* moralized, where cryptocurrency discourse invoked loyalty and authority foundations more strongly than any other topic. Third, semantic network analysis reveals TikTok's circular topology enables cross-cutting exposure while Instagram's fragmented structure isolates candidates from issue clusters determining which identity-aligned moral frames audiences encounter together.

Related Works

Moral Contagion and Platform Design

American political discourse has become increasingly moralized, with moral language use on social media increasing between 2012 and 2023 at rates exceeding traditional media (Puryear et al. 2025). The concept of "moral contagion" describes how moralized content spreads through emotional engagement and social reinforcement (Brady, Crockett, and Van Bavel 2020): content evoking "other-condemning" emotions like anger and disgust triggers moral conviction and motivation to share (Brady et al. 2017; Haidt 2003), creating feedback loops where exposure strengthens beliefs and amplifies further engagement. Morally-framed content generates significantly more sharing than economic or human-interest frames (Valenzuela, Piña, and Ramírez 2017), with effects persisting at least two weeks and occurring across the political spectrum—though the specific moral foundations invoked vary by ideology (Graham, Haidt, and Nosek 2009).

Brady, Crockett, and Van Bavel (2020) propose the MAD (Motivation, Attention, Design) model, arguing that platform design features—algorithms, sharing affordances, network structures—fundamentally moderate this process. Emerging evidence supports this: out-group animosity drives engagement on Twitter (Rathje, Van Bavel, and van der Linden 2021), TikTok's recommendation algorithm constitutes a primary pathway to far-right content (Shin and Jitkajornwanich 2024), and users actively choose more partisan content than algorithms expose them to (Robertson et al. 2023). However, no work has compared moral perception across platforms with fundamentally different algorithmic designs and user demographics.

Moral Foundations, Measurement, and Issue Framing

Moral Foundations Theory (MFT) posits five psychological foundations: care/harm, fairness/cheating, loyalty/betrayal, authority/subversion, and sanctity/degradation (Haidt 2012; Graham et al. 2013). Liberals prioritize individualizing foundations (care, fairness), while conservatives weight all five more evenly, with emphasis on binding foundations (loyalty, authority, sanctity) (Graham, Haidt, and Nosek 2009; Graham et al. 2011). This asymmetry maps onto issue framing: pro-choice rhetoric invokes care and fairness; pro-life messaging draws on sanctity and care reframed toward the fetus (Clifford et al. 2015). Immigration discourse divides similarly (Koleva et al. 2012), and reframing arguments to invoke the opposing side's foundations is more persuasive (Feinberg and Willer 2019). Traditional economic debates center on efficiency rather than moral principles, but high inequality is linked to greater moralization (Kirkland et al. 2024), and cryptocurrency discourse may represent a similar process, with regulation framed as government overreach (authority) and financial freedom as in-group identity (loyalty).

The extended Moral Foundations Dictionary (eMFD) employs probabilistic word-foundation associations from human annotations, capturing both presence and intensity of moral language (Hopp et al. 2021). Applications have shown moral-emotional language predicts sharing (Brady et al. 2017) and moral framing increased across ideologies for climate change (Mooijman et al. 2018). However, existing applications focus almost exclusively on text-based platforms, and no studies have compared moral foundation invocation across platforms with different algorithmic architectures.

Identity, Moral Perception, and Perspectivism

The ideological asymmetry in moral foundation weighting has a crucial implication for computational work. Moralization is not a fixed property of political text but an identity-dependent perceptual outcome. The same content about immigration may activate loyalty foundations for conservative perceivers while activating care violations for liberal perceivers—not because the text is ambiguous, but because different identity groups bring different moral weightings to interpretation (Graham, Haidt, and Nosek 2009; Fiske, Cuddy, and Glick 2007). This parallels findings on perspectivism in annotation, where disagreement about perceived emotion or toxicity reflects genuine variation tied to the perceiver's social position rather than noise (Breitfeller et al. 2019; Kang and Hovy 2021). We argue that this identity-dependent variation operates at the population level on social media: platforms with different user demographics will exhibit systematically different patterns of moral engagement with the same political content, because their audiences bring different identity commitments—and therefore different moral foundation weightings—to the content they encounter.

Research Questions

Our RQs address each component of the MAD model:

1. **RQ1 (Attention):** How do issue-specific supply and demand dynamics change across the two platforms? How do they respond to external political events?
2. **RQ2 (Motivation):** Which moral foundations are invoked across issues and candidates, and does their uptake differ across platforms in ways that reflect identity-dependent moral perception?
3. **RQ3 (Design):** How does platform architecture structure political discourse networks and candidate positioning?

Data and Methods

Data Collection

The analysis utilizes data from 2,027,595 relevant TikToks between January 1st and November 14th, as well as 1,126,972 Instagram posts between January 1st and October 28th of 2024. This data was collected using two streams, one for each platform. Instagram data was sourced from Meta Content Library, and the official TikTok Researcher API was used to collect data from TikTok. Posts with politically relevant content were filtered for with snowball sampling using a list of key words that can be found in the Appendix.

Content Categorization

The data for both platforms contained a "hashtags" attribute for each post, listing all the hashtags used by the poster in description of said post. This attribute was used to determine the alignment of post content with any of the four topics of interest: pro-life-aligned abortion, pro-choice-aligned abortion, politically neutral economy, and right-leaning immigration. Each topic was defined with a list of relevant hashtags, such as *#prolife*, *#pro-life*, *#prolifegeneration*, *#banabortion*, *#abortionismurder*, etc. for pro-life aligned abortion. These hashtags were generated through a process of snowball sampling by identifying frequently used hashtags associated with main hashtags from each category, like *#prolife*, *#prochoice*, *#immigration*, and *#economy.* Complete lists of hashtags used for categorization can be found in the Appendix. Any post containing at least one relevant tag was deemed as pertaining to the associated category, with each post having the potential to be associated with none or multiple categories.

Quantified Supply and Demand

The supply of content was quantified as the total number of posts attributed to each of the four categories across the two platforms each day. Demand for content across each topic was determined by the average views generated by each post per day. The specific number was calculated as the total views generated by all posts created under each topic on a given day divided by the supply of posts for that day. Both metrics were smoothed across seven-day intervals.

Network Visualizations

In addition to timeseries analysis, we also provide two visualizations of hashtag co-usage across each platform. Hashtag pairs were extracted from all posts labeled with at least one of the four categories of interest and the top 1,000 most frequent pairs were used to populate the networks, which were constructed using the NetworkX package in Python. Each unique hashtag in a list of pairs corresponds to a node in a network, and an edge between nodes represents the corresponding hashtags being used together in one or more posts. These networks were visualized using Netwulf with the same visualization parameters to maintain consistency.

Morality Scoring with eMFD

We applied the extended Moral Foundations Dictionary (eMFD) to measure moral content across posts (Hopp et al. 2021). Unlike the original Moral Foundations Dictionary which uses binary word-foundation classifications, eMFD employs probabilistic associations between words and the five moral foundations (care, fairness, loyalty, authority, sanctity). These associations were derived through crowdsourced annotations where participants rated the extent to which words relate to each foundation on a continuous scale. For each post, we extracted the captions. eMFD assigns each word a probability score (0-1) for its association with each foundation, which denote both the strength and direction (virtue vs. vice) of moral content. We calculated document-level foundation scores by aggregating word-level probabilities across all words in a post, following Hopp et al. (2021)'s recommended approach. This yields a moral foundation profile for each post indicating the relative emphasis on each foundation (package available on GitHub).

To account for emotional valence, we incorporated sentiment weighting: positive sentiment amplifies virtue-related foundation scores (e.g., care as compassion) while negative sentiment amplifies vice-related scores (e.g., care violations as harm). Sentiment was determined using eMFD's built-in sentiment lexicon. Final scores represent the average sentiment-weighted moral foundation strength across all posts within each topic category (pro-life, pro-choice, immigration, economy) and candidate hashtag (*#trump*, *#biden*, *#kamalaharris*).

Results

Supply and Demand Dynamics of Attention

Supply priorities. The supply plots in Figure 1a) and b) reflect a consistently high volume of economy-related content being created on both platforms over the 10-month period. On TikTok, 37,700 posts were classified as economy posts, compared to the second-largest category, pro-choice posts (20,371), followed by 12,518 immigration posts. Lastly, only 6,513 TikToks contained pro-life content. Instagram had a slightly different ordering of categories by post volume. Again, the economy (18,614 posts) was the largest category in terms of supply, followed by immigration (4,350), then followed by both abortion categories (3,384 pro-choice and 3,341 pro-life posts). The significant, prevailing gap between the supply of economy-related content and the other three categories on both platforms is the weight placed on the national economy as a major issue by both partisans.

Notably, Instagram displayed a far larger gap than TikTok between the supply of economy-related posts and that of posts in the other three categories. On Instagram, total economy post volume across the 10-month period was around 330% higher than that of the second largest category, immigration. This percentage difference was much smaller on TikTok, with economy supply being only about 85% greater than pro-choice supply. Furthermore, while abortion and immigration related content had similar levels of supply on Instagram, the supply of pro-life, pro-choice, and immigration related TikToks varied significantly. The total volume of pro-choice content was over 60% higher than that of immigration content, and more than triple the supply of pro-life content.

Response to major events. Supply trends on the platforms both saw a major shift, although across two different date intervals. On TikTok, supply across all four categories rose significantly in late July after Biden's endorsement of Harris. During a 4-week interval beginning one week before the candidacy announcement, economy-related content rose by 341%, immigration by 256%, pro-choice by 417%, and lastly, pro-life oriented content by 261%. Instagram did not see a similar response to this news, instead, a significant spike in the supply of economy related content on the platform occurred around the end of May, coinciding with developments in federal cryptocurrency regulation: the passage of FIT21 in the House of Representatives on May 22 to

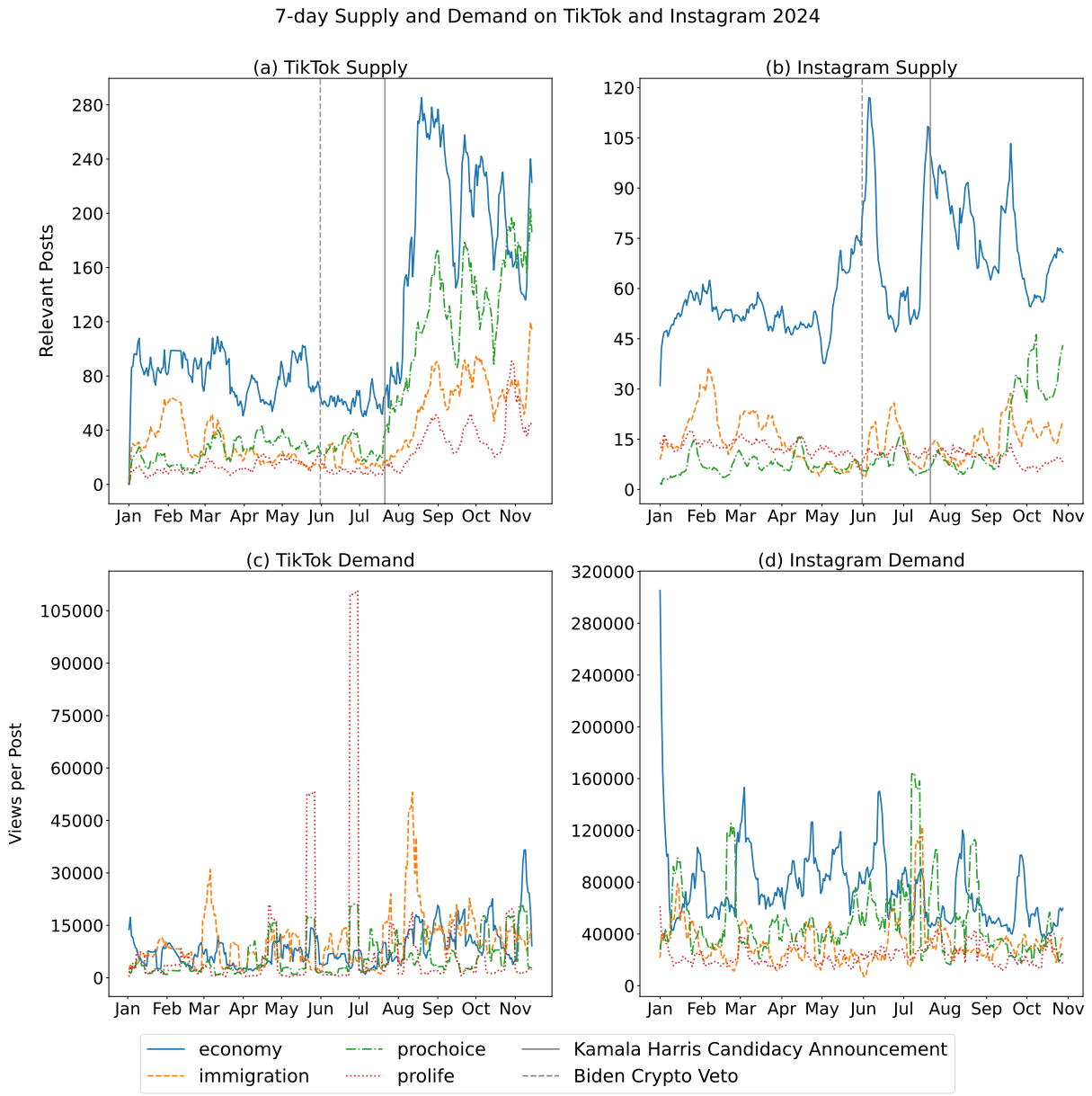


Figure 1: Supply and demand on (a, c) TikTok and (b, d) Instagram from January to November 2024 smoothed over 7-day intervals. Supply is plotted as posts per day and demand as views per post per day.

distinguish jurisdictional boundaries between the Securities and Exchange Commission (SEC) and Commodity Futures Trading Commission (CFTC) over the regulation of digital assets and President Biden's May 31 veto of a measure aiming to overturn SEC's crypto accounting policy, SAB 121. This increase in the volume of economy-related content notably included a significant number of cryptocurrency-related posts (containing mentions of "crypto", "bitcoin", and "dogecoin"). These posts constituted 0.63% of all posts in the Instagram dataset but made up 0.81% of posts produced in the 3-week interval between May 22 and June 12, reflecting an anti-regulatory attitude towards the government regulation of cryptocurrency assets.

Divergences in demand. While the order of content supply priorities was similar across the two platforms, major differences emerged in demand patterns: the volatility of user demand and the category of content that commands the most attention. View patterns on TikTok had a much higher degree of volatility than trends on Instagram. While the average TikTok generated fewer views than the average Instagram post, TikToks had more potential for virality, leading to extreme peaks in demand on the platform (Fig. 1(c)). The most viral TikToks contributing to these peaks pertained to moralized issues, namely pro-life aligned abortion and im-

Table 1: Volatility in Instagram Content Before and After Harris Nomination

Posts			
Topic	Before	After	Δ
Economy	0.05	0.05	-0.00
Immigration	0.12	0.12	+0.00
Pro-choice	0.13	0.12	-0.01
Pro-life	0.06	0.09	+0.03
Views			
Topic	Before	After	Δ
Economy	0.14	0.11	-0.02
Immigration	0.24	0.13	-0.11
Pro-choice	0.28	0.25	-0.03
Pro-life	0.14	0.20	+0.06

Table 2: Volatility in TikTok Content Before and After Harris Nomination

Posts			
Topic	Before	After	Δ
Economy	2.86	0.09	-2.77
Immigration	2.77	0.09	-2.68
Pro-choice	2.68	0.09	-2.60
Pro-life	2.73	0.11	-2.62
Views			
Topic	Before	After	Δ
Economy	0.29	0.27	-0.02
Immigration	0.40	0.26	-0.14
Pro-choice	0.50	0.37	-0.13
Pro-life	0.77	0.57	-0.20

migration. Meanwhile, Instagram lacked the same extreme outliers of high demand (Fig. 1(d)). On the latter platform, the category that garnered the most views was the economy (averaging around 10,290 views/post), a topic that is typically not placed in a moralized frame in online discourse. Demand trends on Instagram also deviate from those of TikTok in that while abortion-related content occasionally gained some amount of virality, these posts employed a pro-choice perspective. In fact, pro-life content gained the least viewers on Instagram out of all four categories, a stark contrast to the high performance of the same content on TikTok.

Table 1 and 2 show the changes in volatility for Instagram and TikTok, respectively, after Biden stepped down for Harris. There are a few immediate observations. TikTok exhibits extreme demand spikes (up to 105,000 views/post) with high variance between time periods. In comparison, Instagram shows higher but far less volatile demand (max 320,000 views/post , yet more consistent over time). TikTok's peaks correspond to moralized content (pro-life, immigration), while Instagram's stable high performance goes to economy content.

Supply volatility on TikTok reduced from 2.68-2.86 to 0.09-0.11 after Harris's nomination, corresponding to a 96% reduction, which suggests Harris's entry transformed sporadic political posting into sustained, consistent content creation. The simultaneous volume increase indicates this wasn't a decrease in activity but a shift from irregular bursts to steady production. In comparison, Instagram volatility remained essentially unchanged (0.05-0.13 for posts, 0.11-0.28 for views). The Harris nomination had no stabilizing or destabilizing effect on Instagram content patterns. This stability reflects Instagram's network-driven model, where established accounts post consistently regardless of events. This is consistent with the literature which shows legacy and news accounts having a greater footprint on Instagram than on TikTok (Chang et al. 2024b).

We posit this supply-demand decoupling is consistent with identity-dependent moral perception by platform. Pro-life and immigration content activate binding moral foundations (loyalty, authority, sanctity) that resonate with conservative identity commitments. TikTok's younger, more politically diverse user base includes audiences for whom these cues register as morally urgent, enabling viral reach despite lower supply. Instagram's user base, dominated by established accounts and older demographics, perceives economy content as more engaging.

In sum, TikTok supply and demand are inversely related: economy dominates supply but moralized content (pro-life, immigration) dominates demand peaks. On Instagram, supply and demand are aligned, where economy leads both metrics. This suggests TikTok's algorithm enables "dark horse" virality, where content from smaller supply categories can still achieve massive reach. This answers **RQ1**.

Pragmatic Topics Can Be Moralized

The temporal patterns indicate clear, issue-based divergences. We investigate this question by considering the cross-section of key electoral issues and moral foundations. Figure 2 presents heatmaps showing the average moral sentiment across five moral foundations (Care, Fairness, Loyalty, Authority, Sanctity) for different topics and candidates on TikTok (a) and Instagram (b). The color intensity represents the strength and direction of moral framing, with darker blues indicating stronger negative sentiment (vice-related) and lighter colors indicating less negative or more positive sentiment (virtue-related). Immigration shows the most consistently negative moral framing across all foundations on both platforms (darkest blue), suggesting this topic is discussed through vice-related moral language emphasizing harm, unfairness, betrayal, subversion, and degradation. Pro-life content shows relatively less negative framing, particularly on care and sanctity dimensions, aligning with pro-life rhetoric that emphasizes protecting life (care reframed) and the sacred value of life (sanctity virtue). Pro-choice content displays moderate negative framing, stronger on care and fairness dimensions, consistent with frames about harm to women and reproductive rights violations.

Critical platform-specific divergences emerge in economy content. On TikTok, economy content scores negatively on care (-5.03) but positively on loyalty (2.35), while on Instagram it scores even more positively on loyalty (3.96) and authority (1.82). This suggests economy discourse, particu-

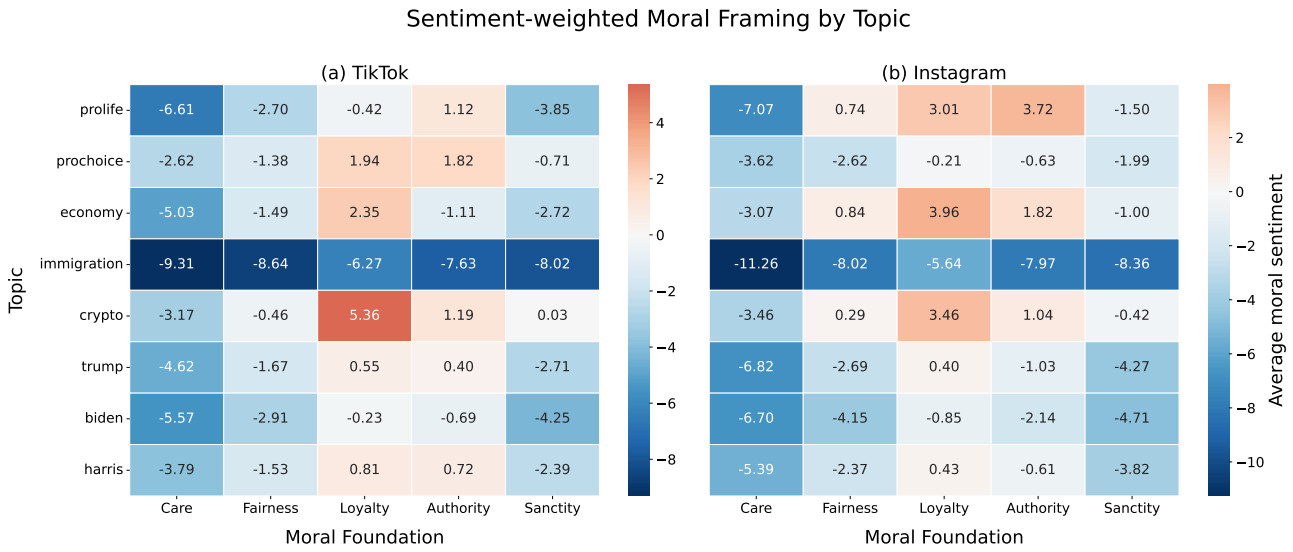


Figure 2: Platform differences in sentiment-weighted moral framing across topics and candidates. Heatmaps show average moral sentiment by foundation on TikTok (a) and Instagram (b), estimated using the extended Moral Foundations Dictionary (eMFD) with all word–foundation probabilities.

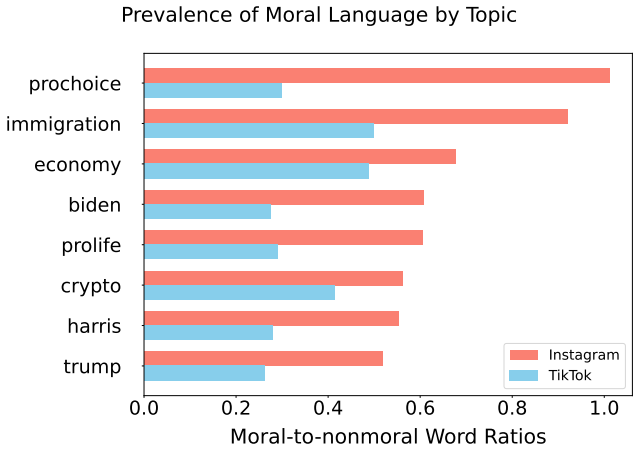


Figure 3: Average percentage of moral language across all posts, by topic.

larly cryptocurrency content, is moralized through binding foundations about government overreach and in-group financial freedom. Cryptocurrency specifically shows strong positive loyalty framing on both platforms (TikTok: 5.36, Instagram: 3.46), the highest loyalty score of any category on TikTok (on Instagram only the broader economy category, at 3.96, scores marginally higher). Regarding candidate framing, Trump shows consistently less negative framing than Biden across most foundations on both platforms. Harris occupies a middle position, with framing similar to Trump's on loyalty and authority dimensions but more negative on care. Loyalty emerges as the key differentiator across topics, where economy and crypto content invoke positive loyalty frames (in-group solidarity), while immigration invokes strong negative loyalty frames (betrayal of national community). Authority shows similar patterns, with economy/crypto content framing regulation as subversion while other topics show authority violations. Care and Fairness remain predominantly negative across topics, suggesting most political discourse emphasizes harms and injustices rather than compassion and equity.

To drive home how textual content on platforms diverge, Figure 3 shows the average percentage of moral language across the two platforms, by topic. Consistently, immigration, the economy, and crypto all have elevated levels of moral language. However, Instagram has significantly higher ratios (and therefore frequencies) of moral language from the supply-side, and shapes aggregate moral exposure.

These findings provide critical empirical support for the MAD (Motivation, Attention, Design) model of moral contagion while extending it in important ways. The divergent moralization of economic issues, particularly cryptocurrency regulation, challenges traditional assumptions about which issues lend themselves to moral framing. While abortion and immigration have long been understood as inherently moralized issues in American politics, our finding that economy content invokes binding moral foundations (loyalty, authority) more strongly than individualizing foundations (care, fairness) suggests that moralization is not simply an attribute of issues themselves but emerges from issue characteristics, platform affordances, and strategic framing choices. In particular, cryptocurrency became moralized through frames of government overreach (authority subversion) and in-group financial identity (loyalty), thus demon-

strating how emerging policy debates can be rapidly moralized when platform dynamics favor such framing. This answers **RQ2**.

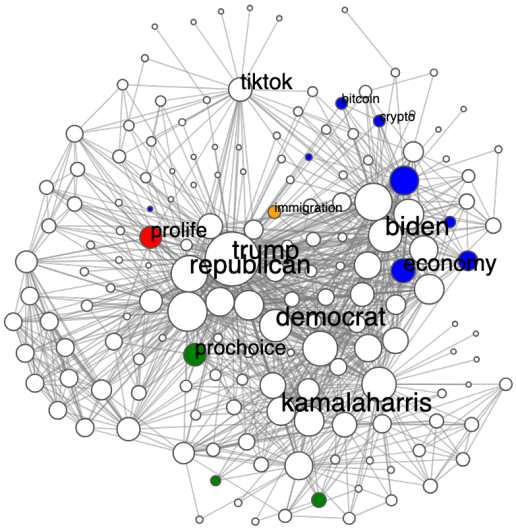
Issue Fragmentation Reflects Platform Design

The network visualizations of hashtag use on TikTok Fig. 4(a)) and Instagram (Fig. 4(b)) provide further insight into the ideological frames present in the supply of political content on both platforms. Based on previous analysis of voter interests during the 2024 election, we expected right-leaning discourse to cluster around immigration and pro-life aligned hashtags. Similarly, we expected pro-choice hashtags to center around other left-leaning hashtags. The position of economy-related hashtags was more complicated to predict, as the issue was of importance to a majority of voters across both parties.

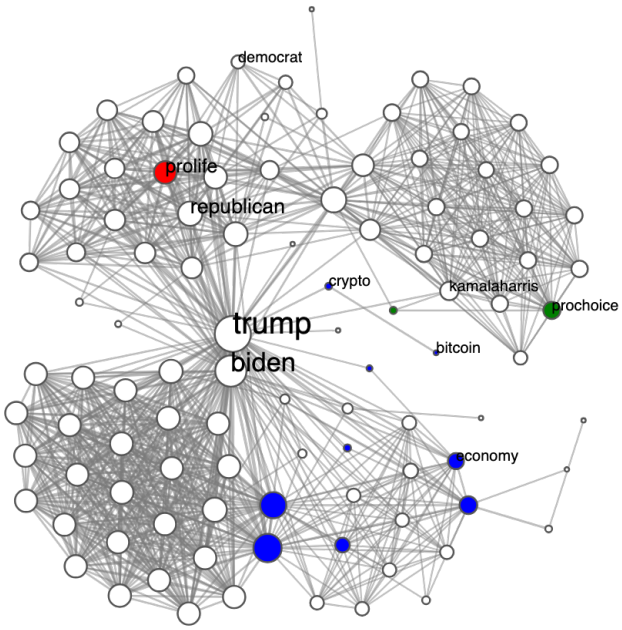
On both platforms, *#trump* was the most frequently used (politically relevant) hashtag in the dataset, with 437,262 TikToks and 104,501 Instagram posts featuring the hashtag. Hashtags denoting other presidential candidates were also prevalent, with 187,637 uses of *#biden* and 159,915 occurrences of *#kamalaharris* on TikTok. Comparatively on Instagram, there were 46,600 counts of *#biden* and 47,275 uses of *#kamalaharris*. Critically, Biden's node appears larger than Harris's on both networks despite similar raw frequencies on Instagram, indicating that Biden hashtags co-occurred more frequently with the four topical categories of interest. This suggests Harris remained somewhat peripheral to the core issue debates we examined—abortion, immigration, economy—which aligns with the temporal finding that Harris's campaign surge on TikTok did not translate to Instagram and with prior research showing that female candidates face exclusion from economic credibility discussions during periods of economic uncertainty (Lei and Bodenhausen 2018; Chang et al. 2024a).

These ideological clustering patterns confirm expected partisan alignments while revealing platform-specific variations in issue ownership. Pro-life hashtags cluster near Trump and Republican-aligned content on both platforms, consistent with abortion restrictions being a core Republican position. Pro-choice hashtags, conversely, cluster tightly around Harris rather than around broader Democratic or liberal identity markers. This finding is particularly striking: it suggests that abortion rights discourse in 2024 became specifically personalized around Harris's candidacy rather than articulated as a general Democratic position. This personalization likely reflects both Harris's identity as a female candidate and the strategic emphasis her campaign placed on abortion rights following the Dobbs decision. The gendered nature of this clustering has important implications—it may have strengthened Harris's appeal to voters prioritizing reproductive rights while simultaneously reinforcing gender-stereotyped issue associations that could undermine her perceived competence on other issues like the economy.

On both platforms, nodes representing President Biden were the most strongly connected to economy-related content out of all three candidates, possibly stemming from dissatisfaction with the economy during his presidential term. Nodes representing cryptocurrency related content clustered around Biden's node in the TikTok network but were more connected to Trump's node on Instagram. The TikTok pat-



(a) TikTok



(b) Instagram

Figure 4: Most common 1000 hashtag pairs on (a) TikTok and (b) Instagram are visualized as networks where each node represents a hashtag and its size denotes the frequency of usage. Nodes are connected if the respective hashtags have been used together. Hashtags categorized as economy, immigration, pro-choice, and pro-life correspond to blue, orange, green, and red nodes, respectively. Uncategorized hashtags are represented by white nodes.

tern—crypto clustering with Biden—likely reflects content criticizing Biden's regulatory actions, particularly his veto of the SAB 121 resolution that would have overturned SEC cryptocurrency accounting requirements. This criticism frame positions Biden as the antagonist in crypto discourse, making him the focal point even for content opposing his policies. Conversely, Instagram's pattern—crypto clustering with Trump—suggests promotional or supportive framing that positions Trump as the pro-crypto candidate. This interpretation aligns with Trump's explicit appeals to cryptocurrency investors during the 2024 campaign and suggests that Instagram's user base (or its algorithmic amplification patterns) favored pro-Trump crypto advocacy over anti-Biden crypto criticism. Lastly, Harris' distance from these nodes aligns with previous findings that confidence in female candidates is historically undermined during periods of perceived economic uncertainty (Lei and Bodenhausen 2018). The exclusion of Harris from economy-related discourse is also a factor in the small size of *#kamalaharris* relative to the nodes of the other two candidates, given how prevalent supply of economy content across both platforms.

Finally, most critically, the two networks display notable structural differences, the most theoretically significant being that TikTok's network exhibits a circular, interconnected topology while Instagram's shows a fragmented, clustered structure. TikTok's circular architecture suggests high interconnectivity across different political topics and ideological positions, where hashtags from different categories—pro-life, pro-choice, immigration, economy—maintain multiple pathways to one another through shared intermediary nodes. This structure facilitates cross-cutting exposure. In contrast, Instagram's fragmented structure reveals distinct, semi-isolated clusters with weak bridges between them—pro-choice content clusters tightly around Harris and Trump-related content forms its own dense region. This balkanized topology reflects Instagram's hybrid algorithm where established accounts can reach followers without bridging to other communities. In sum, divergences in the semantic network reflect differences in the underlying architecture, as predicted by the MAD model.

These structural differences have direct implications for which identity-aligned moral frames audiences encounter. TikTok's interconnected topology means users are exposed to moral content from multiple issue domains and partisan perspectives in proximity, potentially enabling cross-cutting moral perception where conservative-aligned frames (immigration, pro-life) and liberal-aligned frames (pro-choice) are encountered in relation to one another. Instagram's fragmented structure, by contrast, creates ideological silos where identity-aligned moral framing of one issue rarely encounters competing frames from across the aisle.

Substantively, this fragmentation also structurally explains Harris's positioning challenge. Her close proximity to pro-choice content and distance from economy nodes physically isolated her from Instagram's largest discourse cluster, while Biden's and Trump's more central, bridge-like positions in both networks allowed their content to circulate more broadly. The cryptocurrency case exemplifies this difference. TikTok simultaneously connects multiple issues and moralization frames, while on Instagram's fragmented topology Biden drew more comparisons with Trump. Together, these answer **RQ3**.

Discussion

Our analysis of over 3 million posts across TikTok and Instagram reveals that political moralization is not a fixed property of content but a perceptual outcome dependent on identity and platform architecture.

The asymmetric moralization of economic issues is perhaps our most theoretically significant finding. Cryptocurrency discourse achieved the highest loyalty scores of any category—higher than abortion or immigration. The May 2024 Instagram spike following FIT21 passage and Biden's SAB 121 veto shows this language was perceived not as technical policy but as a moral violation of in-group identity. Crucially, loyalty and authority are binding foundations associated with conservative moral psychology (Graham, Haidt, and Nosek 2009). The moralization of economic issues via candidate comparison challenges assumptions about which issues are "inherently" moralized, demonstrating that any issue can become moralized when it activates foundations central to a particular identity group's value system.

Platform architectures differentially amplify these identity-dependent moral perceptions. The decoupling of supply and demand on TikTok versus their alignment on Instagram reflects differences in which identity groups' moral responses get surfaced. The 96% reduction in TikTok supply volatility after Harris's nomination, versus Instagram's unchanged patterns, illustrates how the same event mobilizes different identity groups on different platforms. This extends the MAD model (Brady, Crockett, and Van Bavel 2020): platform design determines which identity groups' moral perceptions get amplified into engagement.

Network topology structures which identity-aligned moral frames audiences encounter together. TikTok's circular network enables cross-cutting exposure, while Instagram's fragmented structure creates semi-isolated clusters. Harris's clustering with pro-choice content and distance from economy nodes isolated her from Instagram's largest discourse cluster (Lei and Bodenhausen 2018; Chang et al. 2024a). In other words, platforms amplify the "locker-room" topics mainly owned by men. The relative position of Trump and Biden reveal differences in how the two platforms promote candidate perception pertaining to the same issues: Instagram spotlights Trump as a pro-crypto champion while TikTok emphasizes Biden as an antagonist.

Limitations and Future Directions

Our study contains a few limitations. First, our hashtag-based categorization cannot fully capture internal ideological diversity within categories, the demand, or the moral framing embedded in visual and audio content. Since eMFD analyzes only linguistic components, future work should assess how images and videos invoke moral foundations. Future work should incorporate computer vision and audio analysis to assess multimodal moral framing, use super-

vised learning on manually coded samples to reveal within-category variation, and analyze engagement type breakdowns (likes, shares, comments) to determine whether different moral foundations trigger different sharing behaviors.

As an observational analysis, we cannot establish causal relationships. Although divergent responses to identical political events strongly suggest platform design shapes content dynamics, confounding factors remain in user demographics and content creator norms. Experimental manipulations varying recommendation algorithms could more definitively establish causality. Despite these limitations, our work demonstrates that as political communication shifts from text-based to visual-first platforms, understanding how algorithmic design, network topology, and moral foundation deployment interact to determine which issues get moralized becomes essential for both political practice and democratic theory.

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