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# Soft disempowerment dynamics in the 2022 FIFA World Cup

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Qatar's hosting of the 2022 FIFA World Cup presents a unique opportunity to examine *soft disempowerment*—a phenomenon where state-led initiatives to enhance national prestige through mega-sporting events inadvertently attract international scrutiny and criticism. This study addresses two important yet underexplored questions: (a) How do cross-cultural differences and influential actors shape the dynamics of soft disempowerment? (b) To what extent did efforts to discredit Qatar resonate with a global audience, and were these criticisms a transient reaction or a more lasting shift in perception? We analyze two large datasets: over 40 million English-language tweets and four distinct panels composed of 71,730 randomly selected users, as well as 7954 accounts from media affiliates, NGOs, and Western politicians who engaged in discussions about the World Cup. We demonstrate that criticism of Qatar was largely driven by influential actors and users from countries with weak political, religious, cultural, or economic ties to Qatar. Despite Qatar's success in mitigating criticisms at a macro level, our disaggregate analysis reveals that critical narratives had a significant impact on both the volume and persistence of information flow. These findings highlight the vulnerability of Qatar's soft power strategy and contribute to a broader understanding of the challenges states face in managing their global image in an interconnected world.

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## Introduction

Qatar's historic achievement as the first Middle Eastern nation to win the bid for the Fédération Internationale de Football Association (FIFA) World Cup was quickly overshadowed by controversy, much of which was exacerbated by underlying geopolitical tensions and cultural biases (Brannagan and Giulianotti, 2015; Roan, 2022). Social media, particularly Twitter (now 'X,' but referred to as 'Twitter' in this paper to maintain consistency with the period of our study), became a battleground for these debates. Vocal critics condemned Qatar's human rights record, poor working conditions for migrant workers, and stance on issues like homosexuality (Hassan and Wang, 2023). Calls for a boycott soon followed. However, defenders argued that the level of scrutiny directed at Qatar was disproportionate, especially when compared to the treatment of other politically controversial hosts (Nair, 2022). In their view, while some concerns may have been legitimate, these were likely overstated by underlying biases from influential Western voices, who may feel a moral imperative to critique nations with differing cultural values. FIFA President Gianni Infantino urged fans to depoliticize the event and bring the focus back to the essence of the sport (FIFA, 2022).

These controversies unfolded within a broader geopolitical backdrop where mega-sporting events, most notably the FIFA World Cup and the Olympics, extend their influence beyond sports (Cornelissen and Swart, 2006; Grix and Houlihan, 2014). Historically seen as platforms for domestic pride and enjoyment, mega-sporting events have increasingly become tools for projecting soft power—defined by Joseph Nye as the ability to influence others through attraction rather than coercion (Nye, 1990, 2004). However, as Qatar's case demonstrates, these efforts come with substantial risks, especially when the host nation's values clash with those of influential global actors (Buarque, 2015). In this paper, we empirically examine *soft disempowerment*, a phenomenon in which state initiatives to improve public image can paradoxically lead to criticism and a potential loss of credibility (Brannagan and Giulianotti, 2018).

The 2022 FIFA World Cup offers a unique case for studying soft disempowerment, particularly in the context of Qatar—a microstate with little football tradition (Brannagan and Giulianotti, 2015; Grix et al., 2019). From a socio-political standpoint, Qatar's potential soft disempowerment can be attributed to four key factors: (a) allegations of bribery and corruption surrounding its World Cup bid (Roan, 2022); (b) criticism of its human rights record, particularly regarding the safety of sexual and gender minorities (Roan, 2022); (c) widespread condemnation of labor policies, including the *kafala* (visa sponsorship) system, which has been associated with unpaid wages, substandard living conditions, and migrant worker deaths (Al Thani, 2021; Brannagan and Giulianotti, 2018); and (d) cultural clashes, such as Qatar's last-minute decision to ban alcohol in stadiums (Roan, 2022).

This study empirically examines how these dynamics transpired in Twitter discourse. We focus on Twitter as a platform because it brings together the relevant actors who play a crucial role in soft disempowerment (Brannagan and Giulianotti, 2018): politicians, journalists, non-governmental organizations (NGOs), as well as the wider Twitter public, including football fans and politically engaged users. Specifically, we investigate how cross-cultural differences and influential actors shaped the critical discourse surrounding Qatar's hosting of the World Cup, and whether criticisms signaled a temporary backlash or a more lasting shift in perception. Our analyses are based on two large datasets. The first consists of over 40 million English-language tweets related to the World Cup, and the second is made up of four distinct panels comprising (i) over 70,000 unique Twitter

users, (ii) media affiliates, (iii) NGOs, and (iv) Western politicians who participated in World Cup discussions. In doing so, this study offers the first empirical analysis that explicitly focuses on soft disempowerment in mega-sporting events using disaggregated social media data.

Our findings reveal a nuanced view of how criticisms—particularly on socio-political issues and driven by influential actors and users from countries with weak political, religious, cultural, and economic ties to Qatar—persisted despite the host nation's soft power initiatives. Even though Qatar appeared to have mitigated soft disempowerment on a macro level, the sustained efforts of critical actors expose vulnerabilities in its soft power strategy and offer a cautionary tale for nation-states managing their reputation in an interconnected world.

We structure the remainder of this paper as follows. In the next section, we review related literature on soft disempowerment in mega-sporting events and the role of social media in facilitating global discourse. We present our data and empirical strategy in the third section, followed by the results in the fourth section. We then conclude with a discussion of our findings, limitations, and potential directions for future research.

## Related literature and research gaps

**Mega-sporting events and soft disempowerment.** The FIFA World Cup and the Olympics are not only the world's most anticipated sporting events but also influential platforms for political and cultural diplomacy (Grix and Brannagan, 2016; Grix and Houlihan, 2014). Historically, Western industrialized nations have used these mega-sporting events as a form of soft power to improve their public image and gain international recognition (Grix and Brannagan, 2016). For example, Germany's 2006 FIFA World Cup aimed to eliminate lingering stereotypes from the World Wars by presenting a modern, welcoming national image under the slogan 'A Time to Make Friends' (Grix and Houlihan, 2014). This shift toward cultural diplomacy has gained appeal in the post-Cold War era, as states increasingly favor soft power over traditional hard power, such as military force, which now faces greater resistance among nations (Brannagan and Giulianotti, 2018; Grix and Brannagan, 2016).

In recent years, emerging economies have adopted similar strategies to signal their aspirations for greater influence and to challenge the global status quo (Grix et al., 2019). Each member of the BRICS group—Brazil, Russia, India, China, and South Africa—has hosted major international events in the past two decades as part of this effort (Jeong et al., 2024). Qatar follows a similar path. Its bid to host the 2022 FIFA World Cup reflects a clear ambition to position itself as a global sports hub and establish regional leadership within the Middle East (Brannagan and Giulianotti, 2018; Koch, 2018). From 2004 to 2022, Qatar hosted over 20 first and second-order international tournaments and has continued to invest heavily in sports-based soft power initiatives (Brannagan and Rookwood, 2016; Grix et al., 2019). These efforts align with Qatar's Vision 2030 strategy, which seeks to diversify the national economy beyond oil and gas (Koch, 2014).

However, the rise of emerging nations onto the global sporting stage has not been without resistance. Mega-sporting events have become increasingly politicized, and host nations have faced scrutiny from Western institutions that question the motives and values behind these ambitions (Manzenreiter, 2010). This phenomenon is captured by the concept of *soft disempowerment*, which describes the unintended negative consequences that can arise when efforts to build soft power fall short (Giulianotti, 2015). In essence, soft power is successfully achieved when both

domestic actions and international narratives align to reinforce a state's legitimacy, whereas soft disempowerment occurs when inconsistencies or external critiques trigger a counter-narrative that erodes that legitimacy, thereby diminishing the state's cultural and diplomatic influence (Brannagan and Giulianotti, 2015, 2018).

By their very nature, the visibility of mega-sporting events places host states under a geopolitical 'microscope' where their domestic policies and socio-political contexts become globally legible (Woodward, 2025; Rowe, 2019). Under such conditions, however, states often lose control over the narratives formed about them and may open up opportunities for external actors to challenge the authenticity and legitimacy of their soft power efforts, especially when their practices appear inconsistent with their professed messages (e.g., promises of labor reforms or inclusivity) or conflict with dominant international norms (Woodward, 2025; Rowe, 2019). For emerging states, this is particularly challenging: their efforts to pursue progress (e.g., through labor reforms) may clash with entrenched domestic norms, while upholding alternative value systems (e.g., Gulf conservatism) risks alienating global audiences. This dynamic thus creates a central paradox: the same visibility that enables soft power also creates conditions for its erosion. Soft disempowerment thrives particularly when hosts are inadequately prepared for the event's scrutiny or when competitors successfully exploit normative divides (Brannagan and Giulianotti, 2015; Grix et al., 2019).

Brannagan and Giulianotti (2018) outline three stages in soft power competition: first, states use resources to project a positive image; second, the effectiveness of these initiatives is determined by the *credible attraction filter*, which suggests that resources will translate into desired outcomes only when a nation's actions are both credible and appealing to international audiences; and third, soft disempowerment emerges when competing actors—such as states, media, and civil society—challenge the state's soft power strategies. In this context, soft disempowerment typically follows from allegations that a state (i) violates international laws and norms, (ii) fails to uphold international conventions or development standards (e.g., those safeguarding humanitarian principles and human well-being), or (iii) engages in actions that directly impose negative impacts on other nations or global communities (Brannagan and Giulianotti, 2018). Soft disempowerment was evident in recent World Cups. Brazil was criticized over the displacement of residents in Rio de Janeiro, while Russia was condemned for its foreign policies, such as the annexation of Crimea and military intervention in Syria, as well as its domestic policies regarding press freedom and human rights (Meier et al., 2021).

None of these past instances, however, arguably match the level of controversies experienced by Qatar. Criticisms began immediately after Qatar won the bid, with international attention focused on the country's labor and social policies (Grix et al., 2019). NGOs, notably Human Rights Watch and Amnesty International, set the tone for international scrutiny by publishing reports that exposed labor abuses, exploitative recruitment practices, and health risks for migrant workers (Roan, 2022). These issues were widely covered by Western media (Swart and Hussain, 2023), which largely framed Qatar's World Cup as a "sportswashing" attempt to divert attention from human rights issues (Roan, 2022). *The New York Times* once stated, "It is also the job of Westerners not to be on the side of the slave owners. Who, in conscience, could enjoy the spectacle of a 2022 World Cup built on this modern slavery?" (Aziz and Hussain, 2014).

The cultural divide between Qatar and the West became clearer in the build-up to the tournament. Qatar drew outrage from the media and football fans after it reversed its policy on alcohol

within stadiums days before the opening match (Roan, 2022). European national teams also became involved in the discourse surrounding LGBTQ+ rights. Several teams initially pledged to support the *One Love* campaign, where captains would wear rainbow armbands during matches to support inclusivity. Most teams withdrew after FIFA threatened sporting-related sanctions, although the German team proceeded with a different form of protest by covering their mouths in a pre-match gesture before facing Japan. European politicians also grew vocal mid-tournament in the wake of the Qatargate controversy, which linked senior European Union officials to alleged corruption involving Qatari representatives (NEWS WIRES, 2022).

These dynamics illustrate the roles of influential state and non-state actors—such as Western-based NGOs, media, teams, and politicians—in challenging Qatar's soft power efforts. However, this critical discourse may reflect Western double standards that may be less compelling to other global audiences (Swart and Hussain, 2023). In his speech before the tournament, FIFA President Gianni Infantino addressed these by stating, "for what we Europeans have been doing around the world for the last 3000 years, we should be apologizing for the next 3000 years before starting to give moral lessons" (Mamo et al., 2024). Actions seen as widely acceptable in the West, such as alcohol consumption and advocating for gender and sexual minority rights, may be viewed differently in societies with high moral conservatism (Keating and Kaczmarek, 2019). The interpretation of Qatar's actions thus likely varies across cultural and moral lines. For instance, research suggests that religiosity influences how foreign states are perceived (Ciftci and Tezcür, 2016), meaning Qatar may find stronger support among audiences in Muslim-majority countries. Additionally, economic factors such as trade relations can also affect foreign opinion (Goldsmith and Horiuchi, 2012). This is consistent with Nye's concept of "threats and inducements" (Nye, 2004), where economic ties and other forms of hard power can foster more favorable opinions (Goldsmith and Horiuchi, 2012).

**FIFA World Cup discourse on social media.** Most literature on soft power has focused on the influences exerted by state and non-state actors. However, the rise of social media platforms such as Twitter has provided the public with new ways to engage in discourse surrounding mega-sporting events (Petersen-Wagner, 2022). Twitter's ability to rapidly disseminate news and promote real-time discussions has positioned it as a platform for global political discourse, where individuals can participate in debates, organize collective actions, and express support or criticism of political figures and social issues (Jungherr, 2014). The open-access nature of Twitter, at least at the time of our study, provided researchers with access to a vast collection of user-generated content with diverse socio-political viewpoints (Himmelboim et al., 2017). This is especially valuable for studying public opinion, thematic patterns, and emerging political narratives around high-profile, global events such as the World Cup (Hassan and Wang, 2023).

We specifically focus on Twitter as a platform because it allows us to analyze the discourse around the tournament, including football fans (Meier et al., 2021), a politically interested public (Jungherr, 2014), as well as politicians (Van Vliet et al., 2020), journalists, and NGOs, all writing without the gatekeeping function of journalism. From a conceptual perspective, these actors are crucial for our analysis (Brannagan and Giulianotti, 2018). Furthermore, focusing on Twitter data also allows us to assess both the supply of opinions and their reach, which would not be possible or would be harder to achieve if we focused on traditional media, especially on a global scale. While this is a

potential limitation, media content itself is an integral part of Twitter communication and thus covered by our analysis.

Many studies analyzing Twitter discourse on the World Cup use dictionary-based lexicon methods to assess the general sentiment of tweets. Recent literature explored how public sentiment fluctuates over the course of the tournament. Findings from the 2018 (Meier et al., 2021) and 2022 FIFA World Cups (Hassan and Wang, 2023; Ishac et al., 2024) showed a similar pattern: negative sentiments tend to appear in the early stages of the tournament but decline swiftly as attention shifts more directly to the games themselves. Earlier studies also examined how sentiment evolves over shorter timeframes, such as during individual football matches (Fan et al., 2020; Yu and Wang, 2015). The increased politicization of recent World Cups also led to studies on how audiences respond to related socio-political events, such as Infantino's speech (Mamo et al., 2024).

Despite these, aggregate-level content analyses present several limitations. First, there is a limited understanding of the mechanisms that contribute to the generation of host countries' criticisms during mega-sporting events. While some studies point to Western double standards (Dubinsky, 2024; Swart and Hussain, 2023) as a factor, particularly in their critique of emerging states (Grix and Brannagan, 2016), it remains unclear how much of these sentiments are driven by cross-cultural heterogeneity or the influence of specific actors. Existing analyses have focused on how specific events (Fan et al., 2020) or political issues (Hassan and Wang, 2023; Meier et al., 2021) affect the development of negative sentiment throughout the tournament, but have largely overlooked the heterogeneity of users themselves. This is important because user contexts—whether political, religious, cultural, or economic—strongly influence how they perceive another country.

Second, existing research lacks insights into how criticisms of a host country affect the broader flow of information over time. The ability of social media to amplify and sustain narratives through retweets suggests that some criticisms may have long-lasting repercussions (Suh et al., 2010), especially in the case of Qatar's World Cup, which can be argued as the most politicized to date. Understanding the size and longevity of critical narratives is important to assess whether such content truly shapes the broader narrative or fades in the face of more positive sentiment or distractions from other global issues.

Based on the literature, we propose the following hypotheses:

- **H1.** Weak ties to Qatar are associated with a higher likelihood of criticism.
  - **H1a.** Weak political ties to Qatar are associated with a higher likelihood of criticism.
  - **H1b.** Weak religious ties to Qatar are associated with a higher likelihood of criticism.
  - **H1c.** Weak cultural ties to Qatar are associated with a higher likelihood of criticism.
  - **H1d.** Weak economic ties to Qatar are associated with a higher likelihood of criticism.
- **H2.** Influential state and non-state actors such as the media, NGOs, and Western politicians show higher engagement and sustained efforts in criticizing Qatar.
- **H3.** Criticisms of Qatar are positively associated with information flow.
  - **H3a.** Criticisms of Qatar are associated with larger information flow.
  - **H3b.** Criticisms of Qatar are associated with longer information flow.

## Materials and methods

**Twitter data collection.** We used the Twitter Streaming API to collect real-time tweets covering the FIFA World Cup Qatar 2022 with the search terms “fifa,” “fifa world cup,” “Qatar,” “world cup,” and “#fifaworldcup.” A total of 66,319,149 tweets were downloaded from November 19 to December 31, 2022 (UTC). We retrieved the tweets using the R package *streamR* running on two different servers at the same time. The Twitter Streaming API typically permits access to a maximum of 1% of all tweets currently published on the platform. Although this threshold was not reached even during the World Cup, we may not have received all relevant tweets during some games with extremely high volume (during peak time, 20,000 tweets per second were published). Data collection was mostly uninterrupted, aside from brief periods with exceptionally high tweet volumes, which led to temporary connection issues. We immediately (within 2 days) filled these gaps with access to the academic Twitter API. In our analysis, we focus only on English-language tweets. We used tweets written from November 20 to December 30, 2022 (UTC) for our analyses, and we further filtered our sample based on the language information provided by Twitter, which resulted in 40,002,246 English-language tweets generated by 7,970,945 unique users.

**Tweet classification and location identification.** Prior to conducting our analyses, we classified tweets based on their content and identified the geographic location of users.

First, we classified tweets as political or non-political using a dictionary of terms related to World Cup political issues (e.g., human rights, LGBT, Muslim, corruption). We then used a negative keyword list (e.g., “live match,” “Spotify,” “free shipping”) to filter spam tweets, which at times also include political hashtags but do not cover anything political. Initial manual validation on 1000 political and 1000 non-political tweets yielded accuracies of 93.1% and 92.7%, respectively. However, the false-positive rate for non-political tweets (7.3%) was still deemed too high, given that most tweets in our dataset are non-political. To improve performance, we fine-tuned the PoliBERTweet model (Kawintiranon and Singh, 2022), a pre-trained language model for political discourse on Twitter, using 80% of the manually labeled tweets for training and 20% for testing. This yielded an even better classification (92.4% accuracy for political and 96.1% for non-political tweets).

Second, we classified tweets based on stance towards Qatar (i.e., whether critical or not) across 2,974,570 unique tweet texts. We defined critical tweets as those addressing issues related to, but not limited to, allegations of corruption, human rights violations, discrimination against sexual and gender minorities, treatment of journalists, their national team, or negative impacts on the environment (see Supplementary Methods for the exact prompt). Tweets criticizing the criticism of Qatar or the World Cup (e.g., hypocrisy of the critics) are not classified as critical messages against the host country. Similarly, tweets criticizing Iran without explicitly connecting the criticism to Qatar are not classified as critical. We used the ChatGPT model (*gpt-4o-mini-2024-07-18*) with fixed hyperparameters (temperature = 0, frequency penalty = 0, presence penalty = 0, max tokens = 1). The Cohen's Kappa was calculated based on 1000 randomly selected tweets that were manually labeled together by the co-authors. Overall, we achieved a Kappa of 0.72 (Precision = 0.96, Recall = 0.98) and an accuracy of 0.95.

Finally, tweet locations were inferred from the location field provided by users. 54.5% of tweets had information in the location field. We geocoded these locations using OpenStreetMap, which allowed us to extract the coordinates for 40.7% of tweets. In the final step, we used the *maps* (Deckmyn, 2023) package in R

to identify to which country these coordinates belong. While this approach works well, we still manually cleaned systematic errors. We then manually validated a random sample of 500 users without an identified country, as well as 500 users with an identified country. Manual validation showed high accuracy for both users with a location (88.4%) and without a location (93.4%). We further conducted a more in-depth assessment by holistically examining the profiles of users with identified locations, including analyzing their other tweets from the same period—for example, references to local events or interactions with regional accounts—and yielded 85.7% accuracy for country assignments.

**Empirical strategy.** We first provide an aggregate overview of Twitter discourse surrounding the World Cup, followed by disaggregate-level analyses to test our hypotheses. We develop three regression models to address the following objectives: (i) identifying factors affecting criticisms of Qatar (testing H1 and H2), (ii) examining the impact of criticisms on retweet counts (testing H3a), and (iii) evaluating how criticisms affect the longevity of retweets (testing H3b).

For the first model, we develop a multilevel logistic regression to estimate the likelihood of a tweet being critical of Qatar (binary dependent variable). This accounts for the hierarchical structure in our data, with country-level factors at the upper level and tweet-level factors at the lower level (see Table S1 and Table S2). We used four country-level independent variables as reasonable proxies for political (H1a), religious (H1b), cultural (H1c), and economic (H1d) relationships with Qatar. We used The Economist's Democracy Index (Economist Intelligence Unit, 2022) as a measure of a country's level of democracy. We obtained the proportion of the Muslim population from Pew Research and used the most recent estimates (Pew Research Center, 2011). Cultural distance from Qatar was calculated using the Euclidean standardized formula based on Hofstede's cultural dimensions (Hofstede et al., 2010; The Culture Factor Group, 2023). Additionally, Qatar's share in a country's total imports was used as a proxy for economic interdependence, with trade data obtained from the World Integrated Trade Solution database of the World Bank (World Bank, 2024).

To test the impact of influential actors (H2), we introduced dummy variables representing accounts of media affiliates, NGOs, and Western politicians (see Supplementary Materials for the classification). In total, we identified 9552 accounts across these three groups. After restricting to accounts that were accessible and with complete tweet histories (see section "Constructing the panels"), 7954 were retained for the panel analyses.

In the second model, we develop a negative binomial regression to model the number of retweets (count dependent variable). To test H3a, our main independent variable of interest is a dummy variable that indicates whether a tweet is critical of Qatar or not. We also incorporate control variables commonly used in previous Twitter-based studies (Bhattacharya et al., 2014; Burnap et al., 2014; Ozalp et al., 2020; Williams and Burnap, 2016; Xu and Zhang, 2018), along with those specifically relevant to our research (see Table S3 and Table S4).

Finally, in the third model, we examine retweet longevity using survival analysis. We explored non-parametric, semi-parametric, and fully parametric approaches to model the survival of retweets (time-to-event dependent variable). We first generated the Kaplan–Meier plots to estimate and compare the survival rates of critical and non-critical tweets. We then performed a Cox proportional hazards regression model to assess the impact of covariates. We use the same set of independent variables when

testing H3a and H3b (see Table S3 and Table S4). However, we found that the dataset did not adhere to the proportional hazards assumption (see Table S10). We then adopted an accelerated failure time model, and we selected the log-normal distribution based on goodness-of-fit measures (see Table S11). To account for censoring, tweets posted within the last 48 hours of the study period were right-censored, in line with previous findings that a minimal percentage of retweets occur beyond this timeframe (Burnap et al., 2014).

We used Bayesian estimation via the *brms* package in R (Bürkner, 2017) to estimate our parameters. We used 1000 warmup iterations and 2500 total iterations per chain, running 4 chains in parallel across 4 cores. All chains mixed well, and we confirm that the chains converged to a stationary distribution with R-hat values between 1.00 and 1.01 for all parameters. We further validated convergence by inspecting the trace and density plots, which showed no signs of divergence or multimodality. For all models, we tested for multicollinearity among predictors and ensured that all Variance Inflation Factor (VIF) values remained below 5 (see Table S8 and Table S9).

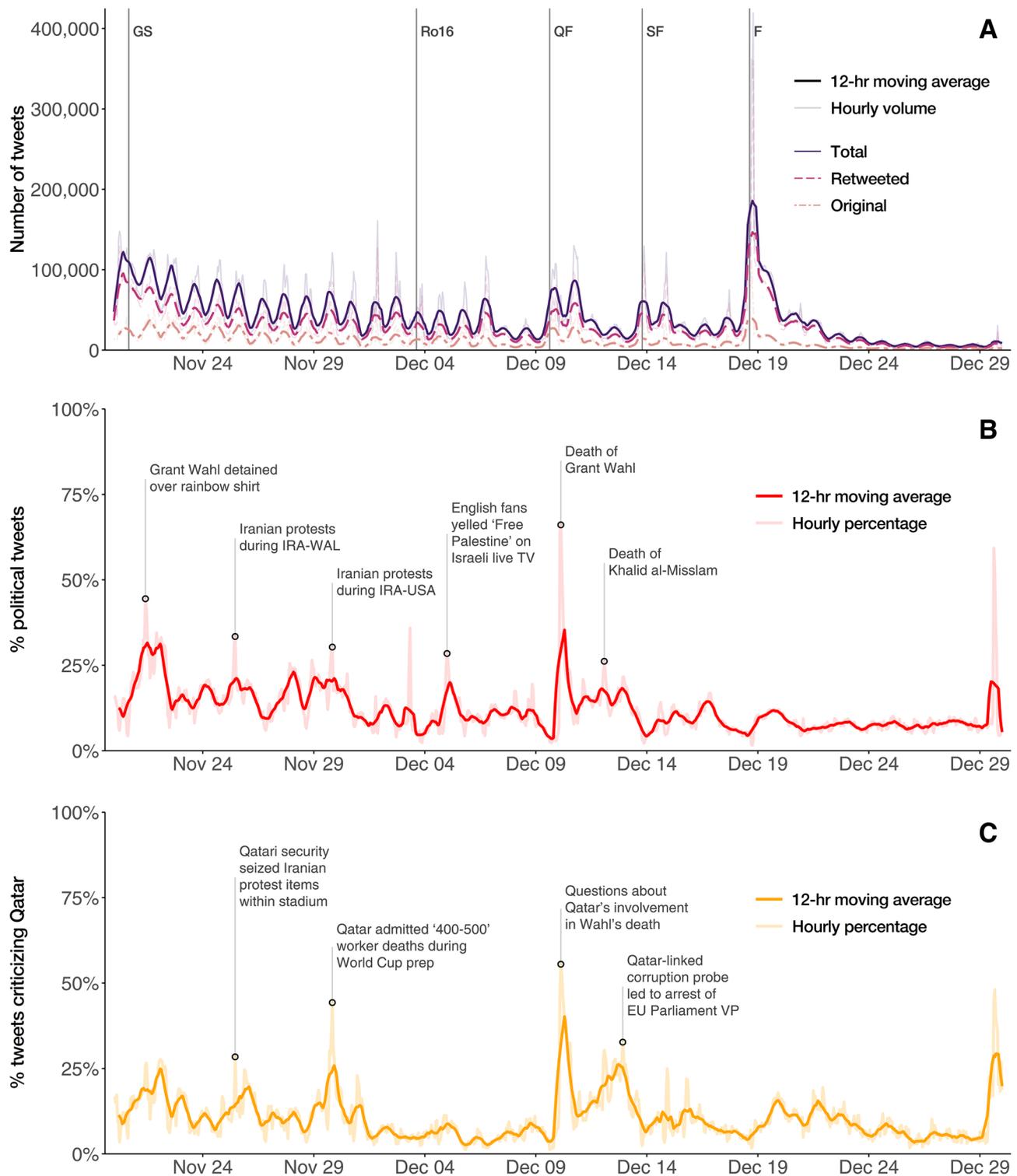
**Constructing the panels.** Given that we are interested in how lasting the criticisms about Qatar are, we decided to create panel data for a random sample of users. The last 3200 tweets (API limit for timeline tweets) of a hundred thousand randomly selected unique users were retrieved using the Twitter REST API in Spring 2023. We initially screened the user data based on the completeness of their tweeting history within the selected time-frame, which extended from four weeks before to four weeks after the tournament. Out of 100,000 general users sampled, 85,917 users were accessible, but 13,888 had missing data as their accounts were set to private or deleted. 71,730 users either had  $\leq 3200$  tweets (thus fully retrievable) or had a complete tweet history within the analysis window. A total of 524,027 tweets were downloaded for these users. We noted that complete data were unavailable for 979 highly active users who exceeded the 3200-tweet limit (which was the Twitter API access limit) since September 2022.

We then compared the tweeting patterns of the general user panel by constructing three other panels, each of which comprised the following: members of the media, NGOs, and Western politicians (additional tests for H2). After reducing the sample to accounts with complete data, we identified 7543 unique media-affiliated users, 171 unique NGO-affiliated users, and 240 Western politicians. We confirmed that there was no overlap between the media, NGO, and Western politician groups.

## Results

**Descriptives.** We begin by visualizing Twitter activity during the 2022 FIFA World Cup. Figure 1A shows the hourly volume of tweets ( $N = 40,002,246$  tweets) over time, with clear peaks corresponding to key football events, such as the final match, which generated the highest hourly tweet volume ( $N = 419,450$  tweets). Of the entire dataset, 37.6% ( $N = 10,931,831$  tweets) were original tweets, while 62.4% ( $N = 29,070,415$  tweets) were retweets.

Approximately 13% ( $N = 5,067,126$  tweets) of all tweets discussed socio-political issues. Figure 1B shows the hourly fluctuation during the tournament. Contrary to prior research (Hassan and Wang, 2023; Meier et al., 2021), we did not observe a consistent decline in political tweet volume as the tournament progressed. Isolating the trend from seasonality reveals that political discourse persisted and resurfaced in response to specific events. For instance, the peak on November 21 is mainly attributed to American journalist Grant Wahl's detainment for wearing a rainbow shirt in support of the rights of sexual and



**Fig. 1** Frequency of tweets during the 2022 FIFA World Cup. **A** Hourly volume of tweets, resembling a typical pattern with peaks coinciding with major sporting events. **B** Hourly proportion of political tweets, showing a nonlinear trend: political discourse resurfacing in response to specific events. **C** Hourly proportion of tweets criticizing Qatar, with criticisms triggered by events such as worker deaths and corruption links. Lighter lines indicate observed hourly percentages, while darker colors show the 12-h moving averages. All timestamps are presented in Coordinated Universal Time (UTC). Notations: GS group stage, Ro16 round of 16, QF quarterfinals, SF semifinals, F finals.

gender minorities (Morse and Dotson, 2022). Similarly, during the Iranian national team's matches on November 21, 25, and 30, there were noticeable increases in political discourse, driven by users from Iran who leveraged the World Cup to internationalize their protests following Mahsa Amini's death (Hassan and Wang,

2023). Topics related to 'freedom,' 'Iran Revolution,' 'Mahsa Amini,' and 'protest' were widely discussed among Twitter users connected to Iran, though this discourse declined after Iran's failure to qualify in the Round of 16 (Hassan and Wang, 2023) (see Fig. S2). Increases in socio-political discourse were also

observed following the deaths of Grant Wahl and Qatari photojournalist Khalid al-Misslam on December 10–11, 2022 (Steinbuch, 2022).

Figure 1C presents the hourly proportion of criticisms within the corpus of tweets mentioning Qatar ( $N = 10,764,703$ ). Criticisms comprised 9.5% of this tweet corpus, with notable peaks following events such as Qatari security's clampdown on Iranian protesters (Shad, 2022) and the EU investigations surrounding the Qatargate corruption scandal (NEWS WIRES, 2022). These criticisms closely mirrored the trends in political discourse, suggesting a strong correlation between public criticism of Qatar and the broader socio-political context.

To further explore this relationship, we conducted a Granger causality test. The results ( $F = 5.3518$ ,  $p < 0.001$ ) indicate that political discourse Granger-causes critical tweets about Qatar, with both differenced time series confirmed as stationary (see Table S7 for stationarity tests). This finding implies that the patterns of negative perceptions directed at Qatar were not merely random but were potentially influenced, at least in part, by ongoing socio-political narratives.

**Determinants of Qatar's criticisms.** In this section, we investigate the factors that contribute to the criticisms directed at Qatar. We formulate a multilevel logistic regression model to estimate the impact of the country-level factors (H1), influential actors (H2), among other covariates, on the likelihood of criticism. Figure 2 provides an aggregate overview of how country-level factors correlate with criticisms. Table S5 presents the model estimates, while Fig. 3 illustrates the conditional effects of country-level variables.

Our findings support H1a; that is, democratic governance played a role in shaping criticism. Democracies ( $OR = 1.121$ ; 95%  $CrI = [1.025, 1.223]$ ), where civil liberties and political freedoms are highly valued (Economist Intelligence Unit, 2022), were more likely to generate critical tweets, *ceteris paribus*. In the U.S., for instance, the arrest and death of American journalist Grant Wahl received extensive media coverage and tributes from national team players (ESPN News Services, 2022). In India, the world's largest democracy, criticism of Qatar was largely focused on migrant worker deaths, as many of the low-skilled workers involved in the construction of stadiums were Indian nationals (Midhat, 2022). In contrast, countries with lower democratic indices are characterized by limited political participation and censorship (Economist Intelligence Unit, 2022). Therefore, users in authoritarian regimes, even if they can access Twitter, might be more cautious when talking about politics and self-censor themselves (Shen and Truex, 2021).

H1b is also supported by our findings. Qatar, as an Islamic state, appears less vulnerable to criticism from individuals in countries with larger Muslim populations ( $OR = 0.915$ ; 95%  $CrI = [0.840, 0.990]$ ), all else being equal. For instance, the topic of "Western hypocrisy" was widely discussed among users from Middle Eastern countries such as Kuwait, Jordan, and Libya (see Fig. S1).

We also found evidence supporting H1c, which suggests that cultural distance from Qatar ( $OR = 1.184$ ; 95%  $CrI = [1.074, 1.308]$ ) is a significant positive predictor of Qatar's criticism. Liberal countries in Western Europe and North America, in particular, show a higher propensity for criticism. This aligns with our observation that the top URLs linked to critical content predominantly originate from U.S. or Western European news outlets and NGOs (refer to Fig. S4). In Belgium, for instance, the coverage of the Qatargate scandal was a major subject of contention. In Germany, early discussions revolved around the rights of LGBTQ+ individuals. A survey conducted during the

World Cup revealed that German respondents generally viewed Qatar as a country with poor conditions for migrant workers and as unsafe for gender and sexual minorities (Gläsel et al., 2024). In Israel, criticisms focused on Arab-Israeli tensions and instances of antisemitism (Middle East Eye, 2022; Nestler, 2022).

Finally, economic interdependence also affected criticisms. We show that H1d is supported by our estimates, and that countries with strong trade relations ( $OR = 0.772$ ; 95%  $CrI = [0.675, 0.887]$ ) with Qatar were less likely to engage in critical discourse, *ceteris paribus*. In East and Southeast Asia, where Qatar maintains substantial economic ties, the discourse tends to focus instead on sports and entertainment topics, such as South Korean singer Jungkook's performance during the opening ceremony (see Fig. S1).

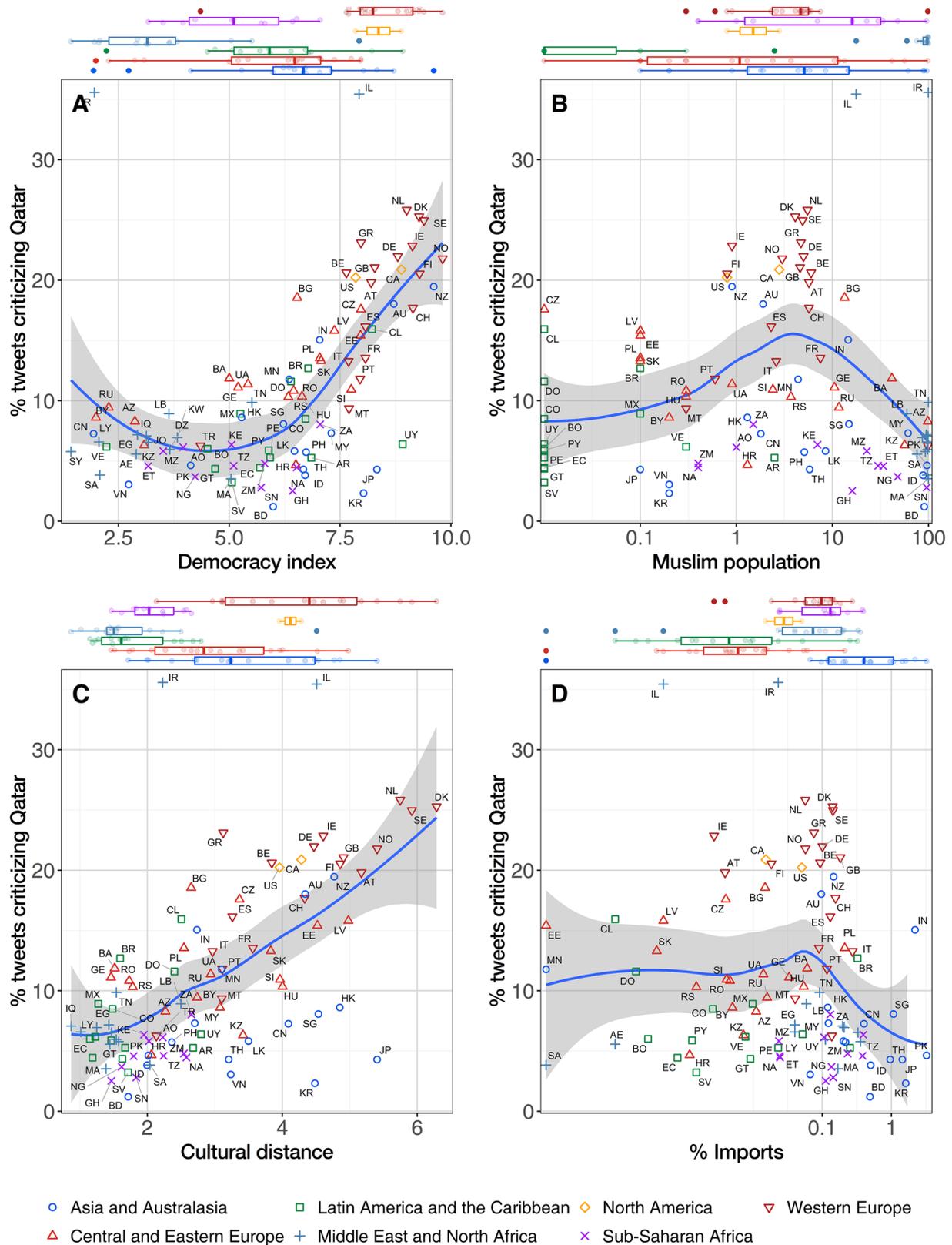
Overall, our estimates collectively support H1, and we provide evidence of how shared values and interdependence can shape public sentiment across borders in the context of mega-sporting events. Figures S1 and S2 provide the topic models to further contextualize these findings.

We also examined the role of various influential actors in driving the critical discourse surrounding Qatar. In general, we found preliminary evidence supporting H2; that is, tweets from these actors were more likely to carry critical narratives about Qatar. NGOs and their affiliates ( $OR = 4.593$ ; 95%  $CrI = [3.987, 5.252]$ ) were significantly more likely to generate critical tweets, as NGOs tend to leverage media attention to advance their focus on human and labor rights (Gerschewski et al., 2024; Keck and Sikkink, 2014). Media professionals ( $OR = 1.064$ ; 95%  $CrI = [1.038, 1.089]$ ) and Western politicians ( $OR = 2.171$ ; 95%  $CrI = [1.758, 2.649]$ ) also contributed to the critical discourse, albeit to a lesser extent, as their platforms often balanced criticism with coverage of sporting events and support for national teams.

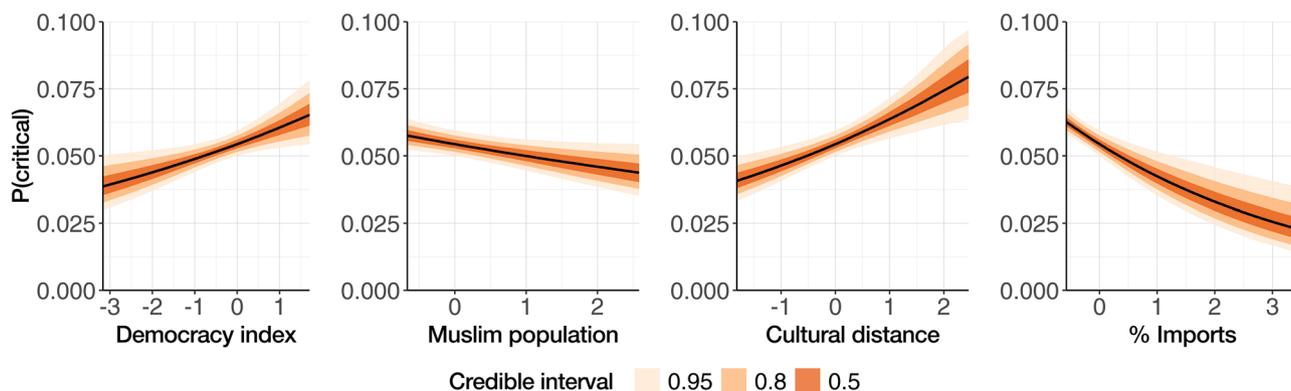
Temporally, we found that tweets posted during the knockout stage ( $OR = 0.891$ ; 95%  $CrI = [0.884, 0.898]$ ), post-tournament ( $OR = 0.719$ ; 95%  $CrI = [0.710, 0.729]$ ), and during matches ( $OR = 0.914$ ; 95%  $CrI = [0.906, 0.922]$ ) are associated with lower likelihood of being critiques. These trends suggest that as the tournament progressed and the focus shifted towards the sporting event itself, the likelihood of criticisms diminished. This may indicate that Qatar's efforts to control the narrative through sports and present itself as a competent host during key stages of the tournament had a measurable impact among users (see Fig. S1) (Hassan and Wang, 2023).

**Impact of Qatar's criticisms on information propagation.** We then investigated the role of Qatar's criticisms in the size and survival of information flow. We used retweets as a proxy for information flow, in line with existing literature, which has emphasized how retweeting signifies not just interest, but also trust, agreement, and confidence in both the message and its source (Metaxas et al., 2015). Therefore, if criticism emerges as a significant positive predictor of information flow, it implies that users have a high interest and confidence in disseminating critical messages through retweets.

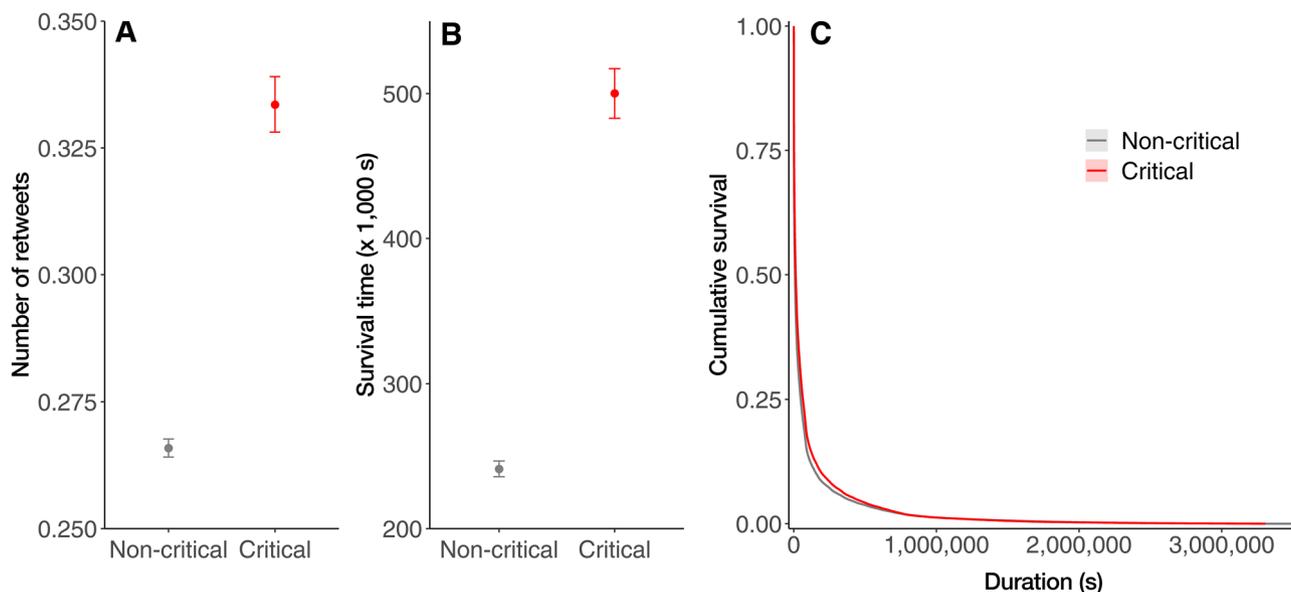
We used the number of retweets to represent the size of the information flow. To account for the overdispersed ( $M = 2.59$ ;  $SD = 211.62$ ; skewness = 610.90) distribution of the dependent variable, we developed a negative binomial regression to model the retweet counts ( $N = 2,974,570$  unique tweets mentioning Qatar). We found evidence supporting H3a, and our estimates indicate that critical content is a significant positive predictor of retweet counts ( $IRR = 1.254$ ; 95%  $CrI = [1.233, 1.276]$ ), *ceteris paribus* (see Table S6–Size panel). Figure 4A shows the conditional effects of criticisms on retweet counts.



**Fig. 2** Aggregate-level relationship between country-level variables and the criticisms towards Qatar. **A** Democracy Index (higher values indicate higher democracy levels). **B** Proportion of Muslim population (horizontal axis transformed into log-scale for enhanced visualization). **C** Cultural Distance (higher values indicate higher deviation from Qatar’s cultural norms). **D** Qatar’s share in a country’s total imports (horizontal axis transformed into log-scale for enhanced visualization). Two-letter country codes follow ISO 3166-1 (refer to Table S12 for country codes and valid sample size per country). Smoothed curves were generated using Locally Estimated Scatterplot Smoothing (LOESS).



**Fig. 3 Conditional effects of country-level variables on the probability of a tweet being critical towards Qatar.** Each panel shows the change in the predicted probability of a tweet being critical as each country-level variable varies, holding all other variables constant at their mean values. All country-level variables are standardized prior to estimations.



**Fig. 4 Effects of criticisms on retweet size and survival.** **A** Conditional effect of criticisms on the number of retweets. **B** Conditional effects of criticisms on the survival of retweets. **C** Kaplan-Meier plot comparing the cumulative survival of critical and non-critical tweets. Log-rank test was conducted to determine statistical significance ( $p < 0.001$ ). Note: error bars in **(A)** and **(B)** represent 95% credible intervals, and shaded areas in **(C)** represent 95% confidence intervals.

We then developed a log-normal accelerated failure time model ( $N = 323,554$  tweets with at least one retweet) to determine how Qatar’s criticisms affect the survival of information flow (see Table S6–Survival Model panel). We used the time interval between the original tweet and the final retweet as the dependent variable. In other words, a tweet was considered ‘alive’ while it continued to receive retweets. We found that criticisms of Qatar are positively associated with the survival time ( $TR = 2.073$ ; 95% CrI = [2.011, 2.136]), indicating longer-lasting information flows compared to tweets containing positive or neutral sentiments, *ceteris paribus*. Therefore, H3b is also supported by our findings. Figure 4B shows the conditional effects of criticisms on retweet survival, while Fig. 4C shows the Kaplan–Meier plot comparing the survival rates of critical and non-critical tweets.

These findings suggest that the global stage of the World Cup may allow critical narratives to endure, even in the face of overwhelming positive sentiment or strategic efforts to suppress dissent. One way to illustrate the ideological tug-of-war at play is by analyzing the 100 most retweeted tweets mentioning Qatar (see Fig. S3). Seven of the top 10 most retweeted tweets were

about Jungkook’s performance, which is reflective of Qatar’s use of cultural diplomacy through popular art forms to boost its global image (Hassan and Wang, 2023). Another highly retweeted post came from the official FIFA World Cup account, celebrating Argentina’s championship. Only eight of the 100 most retweeted tweets about Qatar shared critical narratives; among them, one shared a UK news report about a member of the LGBTQ+ community who was allegedly assaulted in Qatar (Strudwick, 2022), and another post criticized the host country’s use of financial resources for “sportswashing” (see Fig. S3).

**Critical engagement of users.** To further contextualize the results and assess the level of critical engagement among English-language users, we constructed a panel of 71,730 randomly selected users who posted tweets related to the FIFA World Cup. We categorized users based on whether they posted critiques before, during, and/or after the tournament. We then compared their activity to three additional panels consisting of media affiliates, NGOs, and Western politicians (see Fig. 5).



**Fig. 5 Engagement patterns of different user groups in criticizing Qatar over time. A** Percentage of users within each group (general users, media, NGOs and Western politicians) who tweeted criticisms of Qatar before ([B]), during ([D]) and/or after ([A]) the World Cup. **B** Tweeting patterns are grouped into eight distinct categories based on the timing of criticism. For instance, users belonging to the top row (pattern-filled boxes for [B]-[D]-[A]) tweeted criticisms before, during and after the World Cup. **C** Example tweets from selected media, NGO, and Western politician accounts. Note that these examples are not exhaustive, and URLs/images have been removed for clarity.

Media affiliates, NGOs, and Western politicians were substantially more active in criticizing Qatar across all phases of the tournament compared to the random sample of general users. This provides further evidence that even at the user-level, H2 is supported. Figure 5B shows that a substantial majority of general users, 84.8% of the panel, displayed no engagement in criticizing Qatar throughout the study period. This suggests that the discourse was largely driven by a small, highly engaged subset of actors, rather than the broader Twitter user base.

Further analysis reveals that NGOs were consistently the most active propagators of Qatar's criticisms. Western politicians, particularly those within the European Parliament, participated in the critical discourse, especially amidst the probe regarding the Qatargate corruption scandal. Eva Kaili (@EvaKaili), who was implicated in the controversy, deviated from this pattern and instead focused on promoting diplomatic relations between Qatar and the EU. Media coverage followed a similar pattern: European outlets such as @AP\_Europe and @IrishTimesWorld frequently covered negative aspects of Qatar's hosting, while Chinese media outlet @PDChinaSports largely avoided critical coverage.

These findings point to a collective effort by a group of influential actors to affect the online discourse surrounding Qatar. These actors were not only more likely to criticize Qatar due to entrenched socio-political differences but were also far more persistent in sustaining critical narratives over time. These efforts are complemented by the fact that these actors, in general, generate longer-lasting and higher levels of engagement through retweets (see Table S6).

## Discussion

This study addresses a critical gap in the literature by conducting the first empirical investigation explicitly focusing on soft disempowerment within the context of social media discourse surrounding a mega-sporting event. While previous research has conceptually explored how soft power initiatives through mega-sporting events can backfire, we leverage high-resolution social media data to analyze these dynamics. Our findings provide insights into how influential actors and cross-cultural dynamics affect global discourse and offer implications for international relations and the strategic use of mega-sporting events as platforms for public diplomacy.

At an aggregate level, our findings suggest that Qatar appeared to have mitigated soft disempowerment on a large scale. First, the volume of tweets focused on sports and entertainment consistently overshadowed critical narratives. This was also evident at the user-level, where the vast majority of users in our constructed panel did not engage in critiques of Qatar. Second, criticisms were less likely to be generated as the tournament progressed, suggesting that Qatar's rebranding efforts through sports were, to some extent, successful, with many praising the World Cup as one of the best in recent history (Reidy, 2022). During the tournament, Qatar-affiliated accounts regularly shared positive content about the event's organization, particularly in terms of infrastructure, operational efficiency, safety measures, and inclusiveness, along with praise from the international community (see Table S15). Third, influential users actively defended Qatar, with their supportive messages receiving substantial engagement through retweets.

However, our disaggregate analysis uncovers pockets of resistance. We reveal how the 2022 FIFA World Cup became a platform for expressing socio-political narratives, including the detention of Grant Wahl, critiques of Qatar's human rights and labor record, the internationalization of protests by Iranian activists following Mahsa Amini's death, and the Qatargate corruption scandal. These narratives were propagated primarily by users

from countries with weak political, religious, cultural, and economic ties to Qatar, along with influential actors such as media affiliates, NGOs, and Western politicians. These actors substantially contributed to negative perceptions of Qatar, as they were both more inclined and more engaged in their efforts to discredit the host nation.

Our analysis further showed that critical narratives were associated with higher retweet counts and extended retweet longevity. These findings diverge from patterns observed in previous studies on Twitter information flow focusing on national or regional issues, such as social crises (Xu and Zhang, 2018), hate crimes (Ozalp et al., 2020), and terrorist attacks (Burnap et al., 2014; Williams and Burnap, 2016). In these cases, negative or angry sentiments, while present, typically correspond to smaller and shorter-lived information flows, with users favoring the dissemination of positive and supportive content. However, these studies predominantly involve discussions shaped by relatively homogeneous user bases with shared cultural values. In such a globally visible and ideologically diverse arena of the World Cup, we found evidence that critical narratives can appeal strongly to certain segments of the audience.

We conclude that while Qatar's soft power strategy through the World Cup may have minimized large-scale disempowerment, critical narratives still resonated in specific contexts and among certain user segments. Much like water seeping through soil, Qatar's soft power efforts face challenges in fully permeating and translating into sustained state influence, particularly in the presence of persistent socio-political resistance.

Nonetheless, we recognize certain limitations of this study. First, it would be misleading to assume that Qatar's soft disempowerment can fully be encapsulated by the findings within Twitter, as social media may function as an echo chamber for like-minded individuals (Xu and Zhang, 2018). At the same time, the access and usage patterns of social media also vary across countries, and may introduce potential biases in our analyses and subsequent interpretations (Ragnedda and Muschert, 2013).

Second, our study's focus on English-language tweets is a practical choice, but it limits the full spectrum of discussions in non-English-speaking countries. Future research may expand to multiple languages for a more globally representative view of how mega-sporting events are discussed in diverse linguistic contexts.

Third, we acknowledge our limited understanding of the content contained in media attachments to tweets, including photos and videos. Future research could employ image content analysis to gain a more holistic understanding of how multimedia content can be leveraged in socio-political discourse.

Fourth, we encountered sampling limitations due to restrictions imposed by the Twitter API, limiting the amount of data that could be downloaded within a specific timeframe. Consequently, we may have missed tweets during periods with high tweet volume, such as the opening matchday and the final match. However, this should not affect the main interpretation of our results, as these tweets were posted during games with high volume, covering mostly match-related comments. Thus, our study, if at all, overestimates the number of political tweets and criticism about Qatar. Nevertheless, our sample size remains substantial in comparison to previous research employing volumetric counts in this field (Dun et al., 2022; Hassan and Wang, 2023; Meier et al., 2021).

Fifth, we mentioned several important events during the tournament that could have influenced how users felt about Qatar. However, our study was not designed to isolate and precisely measure the impacts of these individual events. For example, Morocco's historic qualification to the semifinals may have instilled, to some extent, a stronger sense of Arab unity and potentially improved the perception of Qatar among Arab users

(Serhan, 2022). We conducted preliminary analyses using aggregate data and did not find any conclusive evidence that this event credibly reduced critical sentiments among Arab users relative to non-Arab users (see Fig. S5, Table S13, and Table S14). These findings, however, should be interpreted as exploratory, given the limitations discussed in Supplementary Section S1. We encourage future studies to conduct more rigorous analyses to better disentangle the causal impacts of specific events on both soft power gains and disempowerment effects.

Sixth, although we clearly observed efforts by Qatar-affiliated accounts to promote positive messages (see Supplementary Section S2), this alone does not confirm a systematic or coordinated state-driven campaign. While our manual review suggests some shifts in messaging focus over time (such as increased emphasis on international praise and the framing of the tournament as the best World Cup in the latter stages), conclusive evidence of a deliberate evolution in strategy is beyond the scope of our analyses. Future research could explore more direct evidence, such as internal records, interviews, and in-depth network analyses, to understand the full extent, coordination, evolution, and impact of such strategic communication efforts.

Finally, we analyzed observational data, and therefore, cannot establish causality. Throughout the paper, we carefully referred to the model estimates as degrees of association to maintain precision.

This research lays the foundation for future studies at the evolving intersection of geopolitics and sports, particularly as emerging players continue to challenge the global status quo. A key question remains: will the discourse surrounding the FIFA World Cup and Qatar's broader efforts translate into a lasting legacy for the microstate? For instance, a report by Amnesty International found that a year after the FIFA World Cup, unfair labor practices among migrant workers in Qatar persist despite implemented reforms (Amnesty International, 2023). In Germany, a study revealed that the World Cup did little to improve Qatar's image among German respondents, though it did increase sympathies toward the Arab region as a whole (Gläbel et al., 2024). Looking ahead, Saudi Arabia, another Gulf state aiming to become a global sports hub, is scheduled to host the 2034 FIFA World Cup. Saudi Arabia's socio-political track record is already under scrutiny from Western institutions, and it faces challenges associated with hosting a larger-scale tournament, including managing a larger migrant workforce to meet the infrastructure demands of an expanded World Cup featuring 48 participating teams (Reidy, 2022).

### Data availability

All data needed to evaluate the conclusions in this paper are present in the paper and/or the Supplementary Materials. Additional data related to this paper may be requested from the authors. The anonymized replication data/code are posted at <https://osf.io/jymuq>.

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## Author contributions

Conceptualization: JPS, NMS, AR. Methodology: JPS, NMS, AR. Software: JPS, NMS, AR. Validation: JPS, NMS, AR. Formal analysis: JPS, NMS, AR. Investigation: JPS, NMS, AR. Resources: AR. Visualization: JPS, NMS. Supervision: AR. Writing—original draft: JPS, NMS, AR. Writing—review & editing: JPS, NMS, AR. Funding acquisition: AR.

## Competing interests

The authors declare no competing interests.

## Ethical approval

Ethical approval was not required as the study did not involve human participants.

## Informed consent

The work did not involve human participants, and therefore no consent was required.

## Additional information

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