Does world system theory rein in social media? Identifying factors contributing to country mentions on X

Michael G. Elasmar[1], H. Denis Wu[1*], and Jacob Groshek[2]

[1] Boston University
[2] Kansas State University
*Corresponding author: hdw@bu.edu

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Abstract

This article examined how social media content has shaped the representation of countries for publics around the world. Based on world system theory (WST), the study investigated the underlying predictors of country mentions on X in 2018. It confirmed that countries with greater economic power – or higher status in the world system – received more mentions. Furthermore, countries with larger populations were mentioned more frequently as were countries that experienced major conflicts. The findings yielded from structural equation modeling shed new light on the interrelationships that drive the social media representation of individual countries and delineated an integrated Model of Country Mentions on X. These findings have implications for global leaders, policy makers, and social media firms to consider.

Keywords: international communication; world system; country mention; social media; economic power

Introduction

The representation of countries in media coverage is vitally important because "the pictures in our heads" (Lippman, 1922, p. 3) are based significantly more on media coverage than from personal experiences. Public opinion about countries formed after media exposure has been shown to be related to various political consequences, including treaties or wars (Michailidou 2015). Therefore, countries around the world often strive for favorable media attention to advance their interests via salient news coverage (Patterson 1998; King, Pan, and Roberts 2017). However, traditional news media coverage of countries has not been fair nor balanced, and certain countries tend to be more salient in the news media than others (Sreberny-Mohammadi et al. 1984; Masmoudi 1979).

Given that the world presented by legacy media has been disappointing and uneven for many countries, numerous debates and calls for overhauling the world's information production and distribution system (e.g., MacBride 1980) have been made. Yet, few endeavors have proved successful in modifying the entrenched pattern of media coverage about countries across the globe (Segev 2016). With the advent of the Internet and then Web 2.0 and mobile smartphone connectivity, many anticipated a more interactive, balanced, and participatory coverage of the *whole* world that differs from traditional media coverage (Stanyer 2009). The possibility that social media might present a fairer and more balanced coverage of the world's countries thus merits careful examination and the focus of this study was to fill this crucial gap.

Even though examining country mentions on social media is relatively new, there is a significant body of literature devoted to studying country coverage on traditional media (i.e., newspapers, magazines, and TV news) in the international communication field. Scholars who focused on this topic found that there was a great variation in the frequency with which

individual countries were mentioned by traditional media (Chang 1998; MacBride 1980; Wu 1998). In past research, one of the key theoretical perspectives that helped to explain and predict the extent to which a given country received coverage was Wallerstein's (1974) world system theory (WST). This theory maintains that the world is composed of three tiers of core, semi-periphery, and periphery nations. The volume of media coverage a country receives has been shown to hinge upon its status in the world system, with countries at the core receiving most news coverage, and periphery nations the least coverage.

Given that global citizens have relied more on social media for news (Shearer and Matsa 2018) and world events (Hladík and Štětka 2017; Nielsen and Schrøder 2014), it is imperative to investigate country representation of social media. With its more interactive, participatory nature, social media provide potentials to deliver a more level mechanism for all countries to be represented by users (Choucri and Clark 2018). The study reported here examined whether the pattern of country mentions on social media – using X as a case study – departs from that of traditional media.

Our primary research questions were:

RQ1a: What are the factors that drive the frequency of country mentions on X?

RQ1b: What is the underlying structure, including WST, that best outlines the interrelationships among the identified factors?

Theoretical Background

This study was nestled in the conceptual framework of mediated factors (Shoemaker and Reese 2014), with a focus on WST (Wallerstein 1974) in influencing the mention of certain countries on social media. Golan and Himelboim (2016) and Wu, Groshek, and Elasmar (2016)

have previously analyzed the topic of predicting country mentions on social media. Golan and Himelboim (2016) found that "while the structure of the international news flow on X exhibited a hierarchical core–periphery structure, non-institutional actors (e.g., bloggers) conformed less than institutional players (e.g., governments and news media) to that structure" (p. 14), suggesting WST was not the best explanation for country presence. Also within the context of WST, Wu, Groshek and Elasmar (2016) used regression models to analyze social media-based mentions each of the world's nations received and found that while the predictions of WST seem to still be applicable, "countries with larger geographical size receive more coverage irrespective of their economic power" (p. 1874).

While both studies were pioneers in directly tackling the topic of country mentions on social media, they did not adequately address the structure of the interrelationships among WST and other related variables that drive social media coverage of individual countries. Typically, the structure of interrelationships among factors is drawn from an integrated theoretical model built upon existing findings. Having a theoretical model that depicts the interrelationships among the predictors of country mentions on social media is important for theory building. Unfortunately, such an integrated model has yet to be developed, despite the existence of a significant body of literature on the prediction of international coverage on traditional media (Wu 1998). The study therefore took steps to identify and integrate various components collated from relevant disciplines into a theoretical model, and then determined if the model that emerged was empirically reasonable as a starting point for theory-building.

The closest body of literature to the topic at hand focused on predicting country coverage in traditional news media (Chang 1998; Galtung and Ruge 1965; Meyer 1989; Wu 2000, 2003). Based on these studies, we identified three likely country-related factors that might also

influence the volume of country mentions on X: Economic, geopolitical, and geographical. Given that we inspected country mentions on social media, technological factors were also considered for its potential influence on country mentions. Taken together, it was reasonable to model these four factors as fundamentally pertinent and theoretically relevant to the present research since they were included in previous studies that predicted traditional media coverage of countries, and have also been previously applied in studies defining globalization and its impact on various fields (Al-Rodhan and Stoudmann 2006; Heshmati and Lee 2010; Rafat, Emadzadeh, and Ahmadi 2013).

Structure of the relationships among the four factors

The term, structure, was used to signify interrelationships among the variables that might influence the volume of country mentions on X. Rather than adopting the traditional approach of considering the identified factors as direct predictors of country mentions on X, we focused on the relationships among these four factors and even among dimensions within these factors. This approach was used to model a more complex picture of direct and indirect influences on the frequency of country mentions. It is important to note that the order of the variables and the directionality of the depicted relationships were solely based on the findings of past studies that reported or implied directional bivariate relationships and theoretically justified the directionality of the relationships.

Economic factors. Existing literature (e.g., Ahern 1984) showed that a country's economic power, such as GNP or GDP, was linked to the amount of news coverage that a country receives in other countries' media. The investigation of the economic influence has been conducted within the context of world system theory (Chang 1998; Galtung 1971; Masmoudi 1979) with countries as core, periphery, and semi-periphery, depending on their relative

influence in the world's economy and other dimensions. Developed countries are at the core of the system, while developing countries are at the periphery (Martínez-Vela 2001) and the WST rankings describe a country's political, economic, social, and cultural characteristics to explain "the new international economic order" (Chirot and Hall 1982, p. 81).

Here, Wallerstein (1974) highlighted the importance of economic power in the process of differentiating among countries:

> "thus far there have only existed two varieties of such world-systems: world-empires, in which there is a single political system over most of the area…; and those systems in which such a single political system does not exist overall, or virtually all, of the space. For convenience and for want of a better term, we are using the term 'world-economy' to describe the latter" (p. 348).

Two studies have suggested that country mentions on X mentions were related to its WST ranking and that periphery countries are mentioned less often than are core and semi-periphery countries (Golan and Himelboim 2016; Wu, Groshek, and Elasmar 2016). When focusing on terrorist coverage, Roman, Alkazemi, and Stewart (2019) also found more online coverage of terrorist attacks from core countries than from non-core countries. Based on these studies, we hypothesized:

H1: Core countries receive more mentions on X.

WST rankings are predominantly driven by a country's relative world-economic position (Halsall 1997; Wallerstein 1974, 2011); therefore, economic power was considered a predictor of WST ranking. Dunaway and Clelland (2017) also found GDP per capita was the main determinant of a country's WST ranking. Based on the aforementioned literature, we hypothesized a directional link between a country's GDP and that country's WST ranking:

H2: Wealthier nations with larger GDPs are core nations.

Geographical factors. Past studies have found that more populated countries experience more crises (Goldstone 2002) and that natural disasters and other crises have been found to be a staple in international news coverage (Rosenblum 1981; Van Belle 2000). The crises a country encounters were measured with an index of real events (crisis score) derived from the International Disaster Database. We thus hypothesized a directional link between the population size of a country and its encountered crises:

H3: More populated countries experience more crises.

Past studies (Kariel and Rosenvall 1984; Kim and Barnett 1996) that investigated predictors of foreign news coverage found that population size predicted the coverage it received. Similarly, Wu, Groshek, and Elasmar (2016) reported a positive relationship between population size and X mentions, namely, the larger a country's population size, the greater the number of X mentions for that country. Based on these, we hypothesized the following:

H4: More populated countries receive more mentions on X.

Geopolitical factors. Crises not only tend to trigger journalists' attention but also boost social media discourses. This pattern was previously shown to be particularly pronounced in the Global South where "coups and earthquakes" receive more coverage from news media based in the Global North (Rosenblum 1981). Humanitarian crises also have been linked to more news attention (Golan and Wanta 2003; Shoemaker, Chang, and Brendlinger 1987) and possibly social media mentions.

Past studies have confirmed the critical role of the Internet as a communication platform among individuals and organizations in times of crises (Jefferson 2006). Among the existing platforms, X has emerged as one that affords users immediate updates about ongoing situations,

to express opinions and feelings, and to appeal for specific actions related to certain crises (Heverin and Zach 2010; Hughes and Palen 2009; MacEachren et al. 2011). X has also been used as a tool to monitor the evolving status and track the mood of the population affected by a crisis (Doan, Vo, and Collier 2012; MacEachren et al. 2011). Furthermore, past studies (Gaffney 2010; Kavanaugh et al. 2011; Starbird et al. 2010) found that X experiences a rapid growth in traffic volume during and after crises such as natural disasters or political protests. Based on the literature, we hypothesized:

H5: Countries that experience more crises are mentioned more frequently on X.

Another geopolitical factor identified in the existing literature is that press freedom of a nation (or more broadly, level of democratization) can be positively related with its sociopolitical and economic outcomes, including GDP (Coccia 2010). More specifically, press freedom is an indicator of the independence level the media enjoy from political and economic influences (Ahrend 2002), which also can be related to the freedom of participation in social media. Freille, Haque, and Kneller (2007) found a strong and positive association between a country's press freedom and its GDP.

Because this study focused on WST ranking in relation to GDP, we thus also hypothesized the following linkage in the proposed model:

H6: Countries that ensure greater press freedoms are wealthier in GDP.

Technological factors. As a critical variable in development communication (Schramm 1964), the level of technological preparedness has been shown to be crucial to its citizens' sociopolitical as well as economic activities, including participation in social media. Previous literature has linked a country's technological infrastructure, such as the number of personal computers and telephone lines, to a country's GDP (Kiiski and Pohjola 2002). Several studies

have specifically demonstrated that a country's GDP per capita is positively correlated with a country's broadband penetration and that the increase in broadband penetration results in the growth of GDP (Czernich et al. 2011; Grosso 2006; Qiang, Rossotto, and Kimura 2009).

Furthermore, GDP has also been linked in past studies to a country's mobile phone penetration. Sridhar and Sridhar (2007) reported that both landline penetration and mobile phone penetration have a significant impact on economic growth. Andrianaivo and Kpodar (2011) also showed a positive correlation between mobile phone penetration and GDP per capita. As such, we hypothesized:

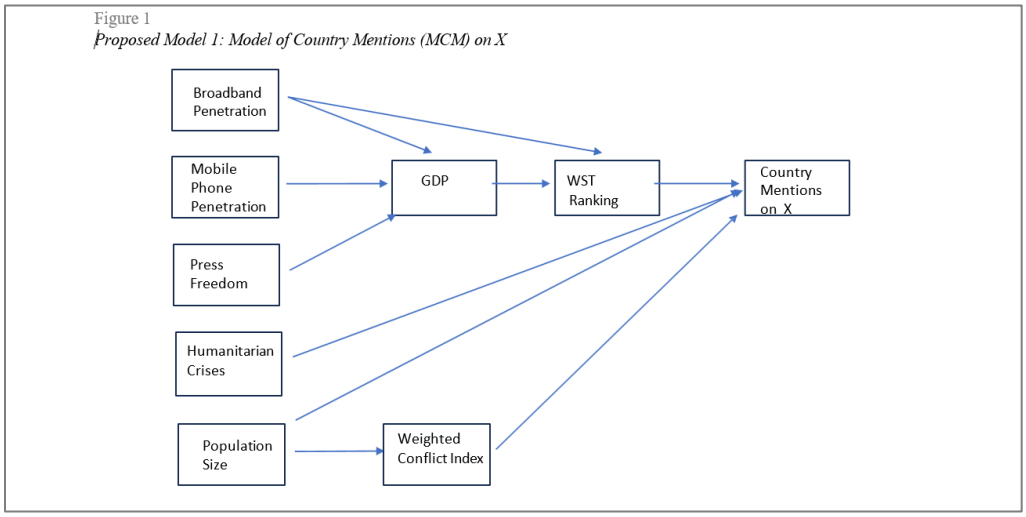
H7: Countries with higher technological penetration are wealthier in GDP.

Model of Country Mentions (MCM) on X

Given the hypotheses derived from the existing literature, we assembled all of the interrelationships described above to propose an integrated theoretical framework to predict the frequency of country mentions on X. Figure 1 depicts the overall structure of the relationships among the variables belonging to the economic, technological, geopolitical, and geographical factors identified earlier. Next, we reported on the procedure and results generated from the tests of the structure of the interrelationships delineated in Figure 1.

Figure 1

Proposed Model 1: Model of Country Mentions (MCM) on X



Samples and Data

To empirically test the WST-based model presented in Figure 1, we collected and compiled national-level indicators into a dataset comprising 210 individual countries and territories. All of the data needed for this investigation was gathered from a wide variety of reliable sources for the year 2018. The operationalization and definition for each of the variables included in the proposed model were as follows.

Variables and Measures

Country mention on X – the primary dependent variable of the model – was simply the raw count of tweets in English each country received during 2018. The total number of X mentions for each of the countries was obtained from Brandwatch (a commercial data-analytics service) by using the English language keyword for each nation during that year. The term *country* in this article was used to also include nation states and territories listed by the United Nations in 2018 as geopolitical entities.

A country's population size and GDP were retrieved from cia.gov, the official site of the U.S. Central Intelligence Agency, which publicly reports yearly updates on the prevailing conditions for countries around the world.

To measure a country's press freedom, scores of press freedom were retrieved from Reporters Without Borders to represent each country's level of media independence (Reporters Without Borders, 2018).

To quantify a country's humanitarian crises, raw counts of disasters were drawn from the International Disaster Database maintained by the Centre for Research on the Epidemiology of Disasters (CRED; emdat.be/database) at the Catholic University of Louvain. The database

classifies disasters along three broad categories: natural, technological, and complex. The humanitarian crises variable used in this study is a combination of all three categories.

Data for sociopolitical crises came from Databanks International's Cross National Time Series Data Archive (Databanks International, 2020). The database includes a set of nine types of conflict: "antigovernment demonstrations, assassinations, general strikes, terrorism/guerilla warfare, major government crises, purges, revolutions and riots" and provides a weighted conflict index per country (Databanks International, 2018). We used the "weighted conflict index" as our measure of a country's sociopolitical crises in 2018.

It is notable that the humanitarian crises and weighted conflict index were only available for 109 countries out of the 210 countries in our database. This meant it was only possible to test that the model in Figure 1 for a portion of the countries listed if we included these 2 indices. To fully test the model as proposed we first tested Model 1 with the 109 countries for which data was available for all variables included in the proposed model. Then we tested the same model again, labeled as Model 1A, without the humanitarian crises and weighted conflict index to ensure that as many countries as possible were represented by the model testing.

The technological variables in the proposed model, including fixed broadband penetration and mobile phone penetration in each country were obtained from data reported by the World Bank (World Bank, 2018). These represent the technology penetration per 100 people in each of the countries included in the analysis.

Wallerstein's (1974) world system theory provided the framework and the primary component of the model we proposed. The WST index labeled countries as core (1), semi-periphery (2), or periphery countries (3), which was updated and operationalized by Babones (2005) and Chase-Dunn, Kawano, and Brewer (2000). Dunaway and Clelland (2017) provided

the WST ranking for 157 out of 210 countries that we adopted. Their methodology for deriving WST rankings was applied for the remaining countries, except for 13 countries where no GDP information could be found and their WST ranking could not be rendered.

Models and Data Analysis Procedure

Structural Equation Modeling (SEM) procedures were used to test the structure of the interrelationships among the identified variables in the proposed model using Amos 25 and Maximum Likelihood (ML) algorithms were used in the testing of the model. The overall fit of the proposed model was assessed using the comparative fit index (*CFI;* Bentler 1990) and standardized root mean square residual (*SRMR;* Hooper, Coughlan, and Mullen 2007). According to the fit index combinations provided by Hooper, Coughlan, and Mullen (2007), a good fit for a model consists of a *CFI* value greater than .96 and a *SRMR* value smaller than .09.

This study used a two-step approach to execute model testing. We first tested the model as it was originally proposed. If the tests of fit associated with the model showed that the data did not support the model as proposed, then we eliminated the links in the model that were associated with path coefficients with sizes near zero and tested the model again. If the model still did not fit, then we adopted suggestions made by the Amos Modification Indexes for optimizing the model (Joreskog 1993; Sörbom 1989). As reported below, we did not need to consider model optimization procedures suggested by the modification indexes as the models provided a good fit for the data.

SEM is not intended to be used as an exploratory technique to determine which variables could be driving other variables (Marsh et al. 2014). It is instead designed as a confirmatory approach to determine if a theoretically justifiable structure of relationships was consistent with the data. In this article we used SEM in its intended purpose: to determine if the theoretically

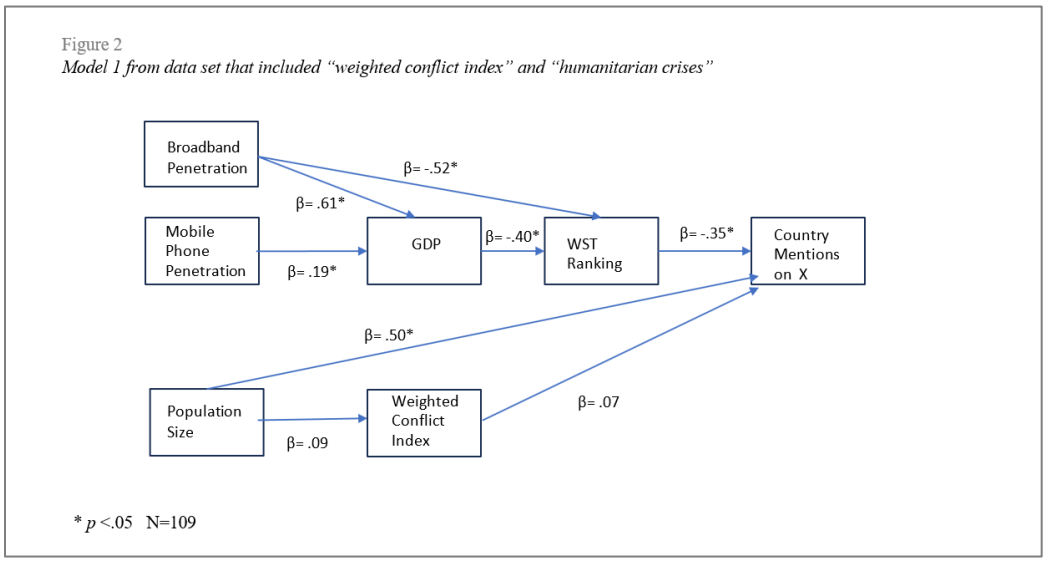
justified structure of relationships derived from the relevant literature and depicted in Figure 1 and Figure 1a was consistent with the data.

Results

The section reported below describes the progression of model testing along with the additions and deletions of certain model components made in order to arrive at the final model. Model 1 testing began with 109 countries, and a first test of the model did not support its structure as it was initially specified in Figure 1 (*CFI* = .92, *SRMR* = .07).

We examined the standardized path coefficients and two of them were near zero in size: They were the path from *press freedom* to *GDP* and from *humanitarian crises* to *country mentions on X*. We removed both of these links from the model and retested it. A second test of the model as modified showed that the model fit the data (*CFI* = .98, *SRMR* = .06).

Figure 2
Model 1 from data set that included "weighted conflict index" and "humanitarian crises"



According to the model depicted in Figure 2, there were three direct predictors of country mentions on X: a country's *WST ranking*, *population size*, and *weighted conflict index*. *WST ranking* had a moderate influence on X mentions (*Beta* = -.35), *population size* had a strong influence (*Beta* = .50), and *weighted conflict index's* influence was weak (*Beta* = .07). The direct

relationships found between a country's *WST ranking* and *country mentions on X* supported H1. The relationship found between a country's *population size* and its *country mentions on X* supported the prediction made in H4. The relationship found between a country's *weighted conflict index* and its *country mentions on X* supported H5.

In addition to the direct relationships noted in the previous paragraph, there were also notable indirect relationships. In addition to being a direct predictor of *country mentions*, *population size* was also an indirect predictor of *country mentions*: It was a relatively weak predictor of the *weighted conflict index* (*Beta* = .09), which was itself a direct predictor of *country mentions*. Here, more populous countries experienced more conflicts (H3) and this was related to more county mentions on X (H5). *GDP* was an indirect predictor of the country mentions as it showed a strong and direct relationship with *WST ranking* (*Beta* = -.40), which supported H2 – where it is also worth noting that a low *WST ranking* indicated a country that is more at the core of the world system.

The technological indicators of a country were indirect predictors of a country's mentions on X. *Fixed broadband penetration* had an indirect relationship with *country mentions* as its influence on *WST ranking* was strong (*Beta* = -.52) and in turn, as was previously noted, *WST ranking* was a direct predictor of *country mentions*. Countries with higher *fixed broadband penetration* were related to lower *WST rankings* and greater *country mentions*.

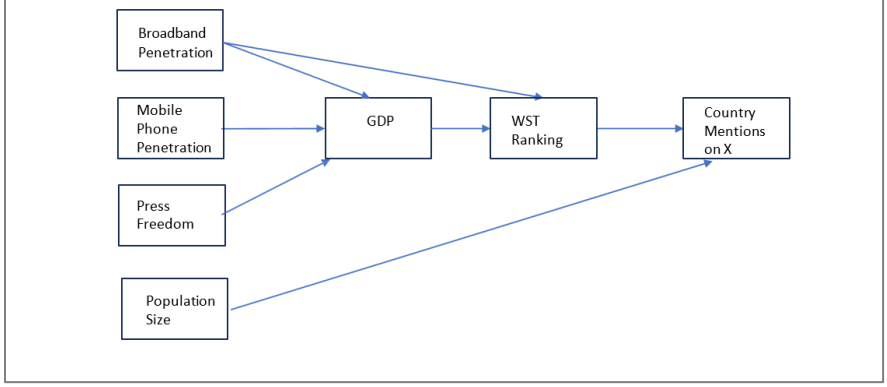
Fixed broadband penetration also exhibited a strong direct relationship with *GDP* (*Beta* = .61). The higher a country's *fixed broadband penetration* rate was, the greater its *GDP*, which was positively associated with core status on the world system and more posts on X. The significant relationship found between a country's *fixed broadband penetration* and its *GDP* also supported H7.

Mobile phone penetration had an indirect relationship to the country mentions and its influence on *GDP* was relatively small (*Beta* = .19). GDP, in turn, was a direct predictor of *WST ranking* which predicted *country mentions*. The relationship found between a country's *mobile phone penetration* and its *GDP* supported H7.

It is also worth noting that the only hypothesis that was not supported by the model tested with 109 countries was H6. *Press freedom* was therefore dropped from Model 1 after the first round of testing due to the fact that the size of its path coefficient was near zero.

Model 1 depicted in Figure 2 was tested for 109 of the 210 countries since data for *humanitarian crises* and *weighted conflict index* were not available for more than half of the world's countries. Another model (Model 1A) testing without these two variables was conducted so that more countries could be included. Model 1A depicted in Figure 3 is the same as Model 1 without the *humanitarian crises* and *weighted conflict index*.

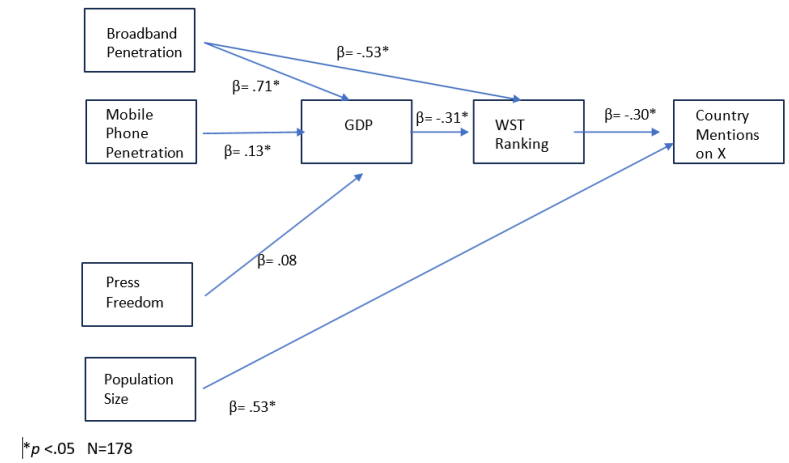
Figure 3
Proposed Model 1A: Model of Country Mentions (MCM) on X



An initial test of Proposed Model 1A depicted in Figure 3 shows that the model fits the data (*CFI* = .95, *SRMR* = .05) without any modification. Figure 4 shows the standardized path coefficients obtained for Model 1A.

Figure 4

Model 1A from data set without "weighted conflict index" and "humanitarian crises"



As shown in Figure 4, there were two direct predictors of country mentions on X. They were a country's *WST ranking* and *population size*. *WST ranking* had a moderate influence (*Beta* = -.30), and *population size* had a strong influence (*Beta* = .53). The more developed a country was, the more mentions this country received on X and the larger a country's population was, the more mentions it received on X. Again, the direct relationship found between a country's *WST ranking* and *country mentions* on X supported H1. The relationship found between a country's *population size* and its *country mentions* on X also supported H4.

In addition to the direct relationships noted in the previous paragraph, there were also indirect relationships that are worth observing. *GDP* was an indirect predictor of country mentions as it had a moderate and direct relationship to *WST ranking* (*Beta* = -.31) which, in itself, was a direct predictor of *country mentions*. The greater the *GDP* of a country, the lower its *WST ranking* was (thus H2 supported), and the higher the volume its mentions on X also were.

The technological indicators of a country, likewise, were indirect predictors of a country's mentions on X. *Fixed broadband penetration* had an indirect relationship to *country mentions* as its influence on *WST ranking* was strong (*Beta* = -.53). *Fixed broadband penetration*

also had an extraordinarily strong direct relationship with *GDP* (*Beta* = .71), which was, in turn, a predictor of *WST ranking*. Therefore, the higher a country's fixed broadband penetration, the greater the country was in terms of higher GDP and WST core status. This relationship between a country's *fixed broadband penetration* and its *GDP* was consistent with H7.

Mobile phone penetration had an indirect relationship with *country mentions*: its influence on *GDP* was moderate (*Beta* = .13), yet the positive relationship between a country's *mobile phone penetration* and *GDP* was consistent with H7. Lastly, *press freedom* had an indirect relationship with *country mentions* via its small influence on *GDP* (*Beta* = .08). This relationship between a country's *press freedom* and its *GDP* was consistent with H6.

Discussion

This study examined factors that might explain the variation of country mentions on X. We proposed and tested a Model of Country Mentions (MCM) on X that incorporated the world system theory and other potential predictors, tested the strength of their relationships with country mentions on X and also the structure of the interrelationships among these predictors. This study yielded a fruitful finding that can pave the way for future social media studies that are based on the world-system framework. Furthermore, this study applied the analytic approach of structural equation modeling to account for country presence on X. It is worth reiterating that the order in which the variables were organized and the directionality of the relationships in the model were based on the findings of past studies that reported or implied directional bivariate relationships and theoretically justified the directionality of the hypothesized relationships.

The unveiled relationship between a country's *WST ranking* and its *mentions* on X was consistent with the existing literature that have shown that the *WST ranking* of a country is positively correlated with its volume of news coverage in traditional media (Chang 1998;

Galtung 1971; Masmoudi 1979) and echoes the results of Golan and Himelboim (2016) and Wu, Groshek, and Elasmar (2016) who found that core countries are likely to receive more mentions on social media. Indeed, a significant relationship between a country's *GDP* and *WST ranking* was expected since *WST* was originally defined by Wallerstein as being primarily economically driven.

With respect to technological predictors, this study found a positive link between a country's *mobile phone penetration* and its *GDP*. Another technological factor, *broadband penetration*, was also found positively associated with *GDP*. These findings reinforce the existing literature that suggests that increasing *broadband* and *mobile phone penetration* may yield *GDP* growth, which is significantly associated with *WST ranking* and subsequently more social media mentions. While not specifically testing for *broadband penetration*, past studies confirmed that new technologies, such as transportation and communication infrastructure, are closely associated with economic performance and WST ranking (Smith 1993; Wallerstein 1974; Coccia 2015). However, it is intriguing to find that a country's *mobile phone penetration* was not directly linked to *WST ranking – mobile phone penetration* was only indirectly linked to *WST ranking* through *GDP*, which supports Marler's (2018) idea that mobile phones play unique roles in the economy.

Finally, the relationship between *population size* and *country mentions* was consistent with the results of past studies that focused on the volume of country coverage in legacy media outlets (e.g., Dupree 1971; Kim and Barnett 1996), but is uncommon within the context of social media – with only one other study (Wu, Groshek, and Elasmar 2016) having found the same relationship.

The finding yielded from Model 1 showed that a country's *weighted conflict index* predicts the frequency of its mentions on X, confirming the general patterns found in prior studies (Shoemaker, Danielian, and Brendlinger 1991; Gaffney 2010; Kavanaugh et al. 2011; Starbird et al. 2010). The implication of this finding is that countries with crises should be prepared not only for international press coverage but also for an increase in social media mentions. Those unfortunate instances could be great opportunities for neglected countries to be catapulted onto the world stage, though most likely not in a positive light. Interestingly, a country's *population size* was found to contribute to the *weighted conflict index*, a finding consistent with Goldstone (2002) and thus it can be inferred that more populous countries experience more crises, and consequently, are mentioned more often on X.

Our finding from Model 1A that a country's *press freedom* influences the size of its *GDP* was consistent with the study result of Freille, Haque, and Kneller (2007), who found a strong and positive association between a country's press freedom and its GDP. Of the three media-related predictors of *GDP*, however, *press freedom* contributed less than *broadband penetration* and *mobile phone penetration* did in the model.

One of the limitations of this study was that we solely used English-language X posts in our analysis. Understandably, many other languages are used on this platform (Mocanu et al. 2013) to discuss the world's countries and these languages might present entirely different patterns for country mentions (Wu 2020). Replicating studies using tweets in major languages can be conducted in the future to verify and compare with the study findings. Likewise, many other popular platforms (e.g., Weibo or Telegram), specific contexts of country mentions like natural disasters (Abedin and Babar 2018), and unique discourse styles with which countries of the world are discussed (Surowiec and Miles 2021) should be included in future analyses.

Another limitation involved the proposed theoretical framework and its analytic approach. While theoretical components related to the dependent variable of our study were adapted from the literature on country mentions in traditional media and social media, there has not been an existing integrated theory that interconnects these pieces and serves as the basis for our study. As a result, our very first task was to assemble existing theoretical components, propose an integrated theoretical model, and then test the proposed model to determine its applicability and reasonability. The analytic approach that we used, while appearing to be causal in nature, is not, by itself, making any causal claims. The order by which the variables were organized and the directionality of relationships in the proposed and final models were all based on the literature. The order of variables was adopted and confirmed as reasonable by our analytical results. This means that the findings yielded from the integrated theoretical model that emerged from the analysis reported in this article are a beginning for future endeavors to test verify, update, and expand.

Conclusion

This study set out to examine whether world system theory, which exerts a profound influence on traditional media coverage of countries works similarly on X. Two proposed Models of Country Mentions (MCM) generated with world system theory at the center have shared components and unique components. The commonality of the findings suggests two direct routes to account for the variation of country mentions on X: one economic explanation and the other, country size explanation. The economic explanation was derived from the relationships found between a country's *GDP*, a country's *WST ranking*, and the volume of a country's mentions on X. It is important to note that the economic components were driven by technological factors (i.e., mobile phone and broadband cable penetration). The economic force

echoes the results of prior studies that examined traditional news coverage about individual countries, while the influence of population size on country mentions was supported by the more recent literature.

The uniqueness of the first MCM was the direct link from *population size* to the frequency of a *country's mentions* and the indirect link from *population size* to the *weighted conflict index* and then from the *weighted conflict index* to the frequency of a *country's mentions* on X. This means that the volume of a *country's mentions* on X was influenced by *population size* in both a direct and an indirect way. The uniqueness of the second MCM is that *press freedom* was an indirect predictor of the volume of a *country's mentions* on X. It was a direct driver of a country's *GDP*, which itself, was also a direct predictor of a country's *WST ranking*, which, in turn, directly augmented a country's mentions on X. So, press freedom seemed to not only play an important and direct economic role but also indirectly influenced a country's social media presence. The overarching finding was that countries with greater economic power, larger population, more crises, and more press freedom were mentioned more frequently on X.

In the world of social media where traditional gatekeepers and global media powerhouses hardly control the flow of information, country size (in terms of population), independent of a country's economic power, seemed to matter. Therefore, this study provided merely partial support to the influence of world system theory (WST) on social media. The evidence generated by this study suggests that WST, which stems mostly from country's economic power paints a partial picture with respect to explaining the amount of mentions countries receive on social media. The very fact that country size matters even more in social media suggests that a democratizing effect on country-oriented information and discourse has been brought about by

social media. Yet, whether a country's population is a critical facet of world power and to what extent this predictor truly eclipses WST should be examined in more detail in the future.

In addition to confirming the known predictors, this study proposed a sound structure for the interrelationships among four blocks of predictors and then tested this structure using structural equation modeling. By using the SEM approach for confirming the relationships of distinct drivers of country mentions on social media, this study broke new ground in theory-building and offered a more complete picture of the WST's role and the interrelationships among the predictors.

The MCM models were derived from the scholarship across several disciplines. As such, the findings generated herein are not only relevant to the communication discipline but also highly relevant to those studying foreign policy, global affairs, and international relations. With the increasing impact of social media on people's epistemological and perceptual foundation of the real world and intertwined global issues, the implications of this study's findings can be expansive and vital for global political leaders and policy makers. In addition, the unveiled trend of country mentions on social media can be useful for the management of social media firms, especially when they consider access, affordance, and equality for all users from different parts of the world.

In sum, this article aimed to lay an interdisciplinary and integrated theoretical foundation to examine the ecosystem of country mentions on social media. The theoretical contentions made within the model are not intended to be definite and absolute. As is the case in every area of science, theoretical beginnings offer a framework upon which other researchers can build. We expect that future investigations will test, correct, modify, and improve the model herein and, by doing so, shed brighter light on this research area and enhance our understanding of the world.

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