

Portrayal of Developed and Under Developed Countries in Tweets of International News Agencies (2010-2016)

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Abstract

In the context of modern information and communication systems, present study was designed to examine the information and communication imbalances among the developed and under developed countries in tweets of international news agencies during 2010-16. Theoretically, the study takes roots from world system theory and structural imperialism theory. Methodologically, the triangulation of method is used. Firstly, the content analysis was performed on purposively selected tweets of four international news agencies; AFP, AP, Reuters and Xinhua about the 15 sample countries for the period of 7 year from 2010-2016. Further, the social network analysis technique was used to examine the network structures of international news determinants and world countries. This study revealed that core and semi-periphery countries are shared more and framed positively, while periphery countries are shared less and portrayal negatively not only by the international news agencies but also by their followers. Further, it was also found that Reuters' tweets agenda about core, periphery and semi-periphery countries is different from other news agencies specifically from Xinhua. Moreover, study also found that in the tweets of international news agencies the core and semi-periphery countries are covered and shared in context of foreign relations, trade, economy, entertainment, and human interest, while periphery countries are covered and shared with reference to conflicts, disasters, and human rights violations.

Keywords: Core and periphery countries, International news flow, News determinants, News tweets, World system theory, Structural imperialism, Social network analysis

Introduction

The role of international news agencies in international news flow is central to the historic debate among international communication scholars (McBride, 1980; Mowlana, 1985). International news agencies are the most important organizations in the field of global news and information flows. They are instrumental (Bielsa, 2008) in propagating both the good and evil agenda (Anatsui & Adekanye, 2014). They often portray the Western world view and distorted image/picture of under developed countries (Bielsa, 2008; MacGregor, 2013; Ray & Dutta, 2014; Stover & Anawalt, 1983). Although, modern information & communication technologies (ICTs) are bringing change in communication landscape, yet news agencies can be seen as

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monopolistic creatures that stifle the growth of other news providers, news models and agendas (MacGregor, 2013).

Furthermore, social media and internet has changed the journalism trends of information gathering, production and distribution (Griessner, 2012; Kulshmanov & Ishanova, 2014) but the importance of information flow by international news agencies is still a key focus of communication scholarship (Bielsa, 2008; MacGregor, 2013; Ray & Dutta, 2014; Stover & Anawalt, 1983). In this era of digital journalism, Twitter, a site of microblogging in 280 characters, is gaining popularity day by day for news sharing and consumption. (Armstrong & Gao, 2010). Additionally, communicative structures of Twitter (tweets, retweets, following, #hashtags, @replies, and actors) also make it the focus of information flow scholars (Bruns & Stieglitz, 2012; Willis, Fisher, & Lvov, 2015; B. Wu & Shen, 2015; S. Wu, Hofman, Mason, & Watts, 2011). Now, International news agencies are also using twitter for news gathering as well as news distribution. These factors provide enormous reason to study news tweets of international news agencies as a case for information flow concerns among the developed and under developed countries.

The present study aims to explore the coverage and portrayal of developed and under developed countries in the news tweets of international news agencies including the Associated Press (AP), Reuters, Agence France Presse (AFP) and Chinese Xinhua. This study aims: 1) to explore the nature and portrayal of developed and under developed countries in tweets of international news agencies. 2) To find out the determining issues of international news in case of Twitter. 3) To study the implications of World System theory on social media platform of Twitter. 4) To identify the information flow imbalances among developed and under developed countries in international news flow on Twitter and 5) To identify the similarities or dissimilarities in the Twitter agenda of international news agencies regarding developed and under developed nations.

World System and Structural Imperialism Theory

The World System Theory and Structural Imperialism theory are used as theoretical foundations of this study as these approaches have been previously used by H. D. Wu, Groshek, and Elasmr (2016) to study the countries mentioned most and got prominence on twitter. Wallerstein (1974) defined a world-system as one in which there is extensive division of labor. He categorized nations into three categories; core nations (originally comprised of Western Europe and later expanded to include North America and Japan), periphery (Latin America, Africa, Asia, the Middle East and Eastern Europe etc), and semi-periphery (India, China and Japan etc) (Robinson, 2007). Several studies on information imbalances have used world system theory as theoretical foundations (Chang, 1998; Golan, 2008; Kick, McKinney, McDonald, & Jorgenson, 2011; Naustdalslid, 1977; Sorinel, 2010; Wanta & Mikusova, 2010). It has also been tested in the digital age for studying the information flow concerns

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(Blondheim, Segev, & Cabrera, 2015; Golan & Himelboim, 2016; Guo & Vargo, 2017).

In addition to World system theory, Galtung (1971) structural imperialism theory is also one of the influential theory to understand information flow and communication imbalances. It has been widely studied by different scholars to understand and explain international news flows. Galtung (1971) classifies nations into Center and periphery context. The main thesis of the theory about communication flow stated that information flows from core to the periphery and back again and periphery nations know virtually nothing about events in neighboring countries that has not been filtered through the lenses of the developed media systems (Thussu, 2000). In present study, the sample countries were categorized into core, semi-periphery and periphery on the base of previous world system studies (Babones, 2005; Chase-Dunn, Kawano, & Brewer, 2000; H. D. Wu et al., 2016). The most mentioned 15 countries (Appendix I) in the tweets of international news agencies were including; five core countries (United States, United Kingdom, Russia, Japan and Israel), five semi-periphery countries (South Korea, China, Iran, India and Turkey), and five periphery countries (Libya, Egypt, Syria, Pakistan and Afghanistan).

After reviewing the literature on information flow, world system and structural imperialism theories in the context of digital media, this study attempts to continue the effort of H. D. Wu et al. (2016) for building a comprehensive theory about the news flow on twitter. With this theoretical and conceptual support, this study is hypothesized the following statements.

H1: Developed countries will be portrayed positively, while under developed countries will be portrayed in a negative context in the tweets of international news agencies.

H2: Developed countries will be more tweeted and retweeted than under developed countries in the tweets of international news agencies.

H3: Shared portrayal of countries via tweets of international news agencies will more likely to vary among core, semi-periphery and periphery countries.

H4: Information flow imbalances among developed and under developed countries will more likely to exist in tweets of international news agencies.

H5: There would be no significant differences in Twitter agenda of international news agencies about developed and under developed countries.

Determining Issues of International News

In the context of international communication, Chang (1998) model of international news coverage presented world system position and determining events as the primary filters for the international news coverage. The present study also takes

its roots from this model. Similarly, H. D. Wu (2000) found in spite of some variation, trade volume and presence of international news agencies to be the two primary predictors of the amount of news coverage. The literature on information flow and news determinants (Avraham & Ketter, 2016; Blondheim et al., 2015; Boyd-Barrett, 2008; Galtung & Ruge, 1965; Giffard & Rivenburgh, 2000; Kim & Barnett, 1996) support us to extend this scholarship in the context of digital media. This study explores the relationships among the filters of world system status, and news determinants for the news tweets of international news agencies. On the basis of the previous literature, this study categorized news determinants in 10 groups. These are; peace & conflict (Galtung & Ruge, 1965; Kim & Barnett, 1996; Ottosen, 2010), Human Rights (Jiang, Barnett, & Taylor, 2016; Mowlana, 1985), democracy & politics, environment & disasters (Kunczik, 2002; McChesney & Schiller, 2003; Mohammadi, Nordenstren, Stevenson, & Ugboajah, 1987), foreign relations (Golan, 2008; Mohammadi et al., 1987; Östgaard, 1965), trade & economy (Blondheim et al., 2015; Mohammadi et al., 1987; Mowlana, 1985; Segev, 2010), science & technology (Gupta, 2012), sports & culture, entertainment & human interest (Ekeanyanwu, Jnr, & Peters, 2012; Mohammadi et al., 1987; Mowlana, 1985; Xiang, 2013), and defense & strategic interests (Farnsworth, Soroka, & Young, 2010). On the bases of these news determinants the coding instrument of the present study has been developed. News stance related to selected countries and issues were coded in the categories of positive, neutral and negative. Keeping in view the literature on news determinants, the study hypothesizes that:

H6: There would be significant differences in determining issues pertaining to news stories about developed and under developed countries.

Methodology

In this study social network analysis (SNA) technique to examine information flow structures has been employed. The several studies found it an effective methodology in international communication research (Kick et al., 2011; Kim & Barnett, 1996) particularly for testing world-system theories (Smith & White, 1992). The SNA is focused the importance of relationships or linkages among the objects, issues or events (Wasserman & Faust, 1994). Therefore, it has gained the attention of international communication scholars to study the patterns of global news flow (Ekeanyanwu et al., 2012; Himmelboim, Chang, & McCreery, 2010; Jiang et al., 2016; Kim & Barnett, 1996) including twitter (Grandjean, 2016; Willis et al., 2015).

Firstly, content analysis was performed, then data was transformed to matrix data. Secondly, centrality measures and other descriptive statistics were used for descriptive analysis. Thirdly, Pearson correlation test was applied to compare the agenda of international news agencies. This methodological merge in information flow studies also provides useful insights and directions for future studies in this area of scholarship.

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The tweets of international news agencies and all countries of the world are the universe of this study. The twitter accounts of four dominant international news agencies including; AFP, AP, Reuters, and Xinhua were selected (Appendix II). Firstly, because these four agencies have highest twitter followers. Secondly, these agencies have been studied in international news flow studies; Reuters, AP (Aguiar, 2016; Bielsa, 2008; Boyd-Barrett, 2000, 2008; Giffard & Rivenburgh, 2000; Kunczik, 2002; MacGregor, 2013), AFP (Guo & Vargo, 2017; Kim & Barnett, 1996; Wanta, Golan, & Lee, 2004) and Xinhua (Jiang et al., 2016; MacGregor, 2013). The 75932 tweets related to the sample countries from the official twitter accounts @Reuters @AP @AFP and @XHNews were selected. Tweets were retrieved from twitter API during the month of July, 2017. In this study, the text of English language tweets were coded. Images and hyperlinks were not coded nor followed. Only the tweets, numbers of replies, favorites and retweets from the selected accounts were coded. Text and content of @Replies and retweets was also excluded from coding.

Coding Procedures

The news tweets were retrieved and stored in the form of PDF documents. In addition, after the selection of sample countries, tweets were coded manually by searching the name of sample country. Three coders were selected to code the content. All coders were holding graduate degrees in Mass Communication and Media Studies. They were provided three weeks training about the code book and coding instructions. The Cohen Kappa formula was applied to obtained inter-coder reliability that was 0.82. Furthermore, validity of the coding sheet was ensured through expert opinion.

Valence

The country-issue network was coded along with the valence. The three categories of valence are defined as: Positive, if a tweet creates positive image of the selected country on human perception; neutral, if a tweet creates neither positive nor negative image, and negative, if a tweet creates negative image of the country under study (Appendix III) For making data measurement at grouped level ordinal measure and to calculate valued matrices, positive was assigned code +1 and neutral was assigned 0 and negative was assigned -1 code. Hence, valence of the tweet is operationalized as the portrayal of country.

Shared Portrayal

As it is noted that retweet amplify the message of international news agencies. Here, in this study it is argued that if a country is tweeted positively by international news agencies and further it is retweeted more by the followers of these agencies then the shared portrayal of the tweet will also increase in positive direction. However, if a country is tweeted negatively by international news agency, and it is more retweeted and ranked as favorite by its followers then it will create negative shared portrayal of

that country. Therefore, a formula was developed to measure the shared portrayal as follows.

$$\text{Shared portrayal} = \text{Valence} \times (\text{Number of Replies} + \text{Number of Retweets} + \text{Number of favorites})$$

Here valence denotes the portrayal of country-issue network. Which is valued as +1, 0, and -1. Shared portrayal was calculated by using SPSS 22 version and putting variables to the above defined formula.

Findings and Discussion

The finding indicates that international news agencies are using twitter effectively for the distribution of news (Table 1). In the previous studies on international news flow, scholars found Reuters and AP more influential in news dissemination (Palmer & Nicey, 2012; Putnis, 2014) while this study reveals that Xinhua, Chinese news agency, is tweeting more than other news agencies (Table 1). It shows that the social media is assisting to change the global patterns of international news distribution. Now, Xinhua, a news agency of semi-peripheral country, is also competing the dominate world news agencies; Reuters, AP, and AFP on Twitter. Moreover, Xinhua also has 3rd more twitter followers. It was may be the result of Chinese technological and economic advancement and increasing political dominance in world politics.

Table 1

Frequency of News Tweets by International News Agencies about Selected Countries during 2010-2016

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Frequency of News Tweets by International News Agencies about Selected Countries during 2010-2016

News Agencies	Frequency	Percent
AFP	16384	21.6
AP	13633	18.0
Reuters	20675	27.2
Xinhua	25240	33.2
Total	75932	100.0

Table 2

Frequency of Core, Periphery and Semi-periphery Countries in the News Tweets of International News Agencies during 2010-16

World System Category	Frequency
Periphery	14173 (18.7%)
Semi-periphery	27889 (36.7%)
Core	33870 (44.6%)

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Table 3

Portrayal Differences among the Core, Periphery & Semi-periphery Countries in the News Tweets of International News Agencies during 2010-16

World System Category * Portrayal of the Country Crosstabulation				
World System Category	Portrayal of the Country			Chi-Square Tests
	Negative	Neutral	Positive	
Periphery	9494	1234	3445	X ² = 7027.827 ^a p=.000
Semi-periphery	8612	2983	16294	
Core	11247	6389	16234	
Total	29353	10606	35973	

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 1979.65.

It is claimed that international news agencies portray developed world positively and presents distorted or negative image of under developed countries (Bielsa, 2008; MacGregor, 2013; Mohammadi, 1984, 2002; Mohammadi et al., 1987; Mowlana, 1985, 1988, 1996, 2014; Ray & Dutta, 2014; Stover & Anawalt, 1983). Within the paradigm of world system approaches, it is argued that core, semi-periphery and periphery countries are portrayed differently in international news by the global media (Kick et al., 2011; Naustdalslid, 1977; Sorinel, 2010). Furthermore, structural imperialism theorists also claim that the international news agencies are the source of power and these agencies plays a critical role in the distribution of global news among the countries of the world (Aguiar, 2016; Gidengil, 1978; Himelboim et al., 2010; Kim & Barnett, 1996). The findings of present study support the argument of world system and structural imperialism theorists. In case of news tweets, this study claims that there are significant differences in the portrayal of core, periphery and semi-periphery countries (Table 3). In addition, core and semi periphery countries are covered more positively in tweets of international news agencies. On the other hand, periphery countries are covered more negatively in tweets of international news agencies (Table 3). Therefore, on the contrasting to previous study (H. D. Wu et al., 2016), which found twitter as change agent in international news distribution, this study claimed that it is invalid in case of tweets of international news agencies regarding developed and underdeveloped countries. The global news agencies are reproducing the traditional news flow imbalances among the developed and under developed countries rather than changing it. Therefore, this study confirms H1 which proposes that developed countries will be portrayed positively, while under developed countries will be portrayed in a negative context in the tweets of international news agencies.

Table 4

Differences in Replies, Retweet and Favorite Rate among the Core, Periphery & Semi-periphery Countries in the News Tweets of International News Agencies during 2010-16

		Mean	SD	F	Sig.
Number of Tweet Replies	Periphery	4.59	14.11	303.439	.000
	Semi-periphery	3.83	11.65		
	Core	6.48	14.94		
	Total	5.15	13.71		
Number of Retweets	Periphery	93.70	121.52	533.058	.000
	Semi-periphery	68.39	102.58		
	Core	97.40	119.81		
	Total	86.06	114.92		
Number of Favorites	Periphery	32.47	62.24	787.613	.000
	Semi-periphery	48.36	81.99		
	Core	66.15	102.53		
	Total	53.33	89.69		
Shared Portrayal	Periphery	-58.12	202.63	877.11	.000
	Semi-periphery	18.61	186.69		
	Core	29.04	237.47		
	Total	8.93	216.03		

Twitter has different dynamics of news distribution as well as consumption (Bruns & Stieglitz, 2012; Willis et al., 2015; B. Wu & Shen, 2015; S. Wu et al., 2011), while retweet is an essential feature of the twitter. It is considered the influential feature which allows twitter users to receive as well as propagate international news instantly. In this study, revealed that there are significant differences in the mean of retweet rate of core, periphery and semi-periphery countries (Table 4). Moreover, core countries are more retweeted than semi-periphery and periphery countries by the followers of international news agencies (Table 4). Interestingly, semi-periphery countries are less retweeted than periphery countries (Table 4). In this context, a little evidence is available to claim that the tweets of international news agencies and their sharing is changing the traditional hierarchies of world countries in their propagation on twitter. Therefore, H2 of this study is partially validated.

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Determinants of international news are also considered a significant factor in determining the international news coverage different countries (Blondheim et al., 2015; Chang, 1998; Galtung & Ruge, 1965; Kim & Barnett, 1996; Mohammadi et al., 1987; Mowlana, 1985; Ottosen, 2010; Sacco & Bossio, 2015). Scholars argue, in international news, different countries are covered due to different issues or events (Chang, 1998; Galtung & Ruge, 1965; Kim & Barnett, 1996; Mohammadi et al., 1987; Mowlana, 1985). On the other side, critical scholars of international communication argue that there are inequality in the structure of international news due to news determinants. Some countries are covered due to certain issues. Developed and western countries are mostly covered in issues of science & technology, culture, sports, trade, economy and entertainment. On the other hand, under developed countries are covered in the context of conflicts, disasters, human rights violations, political instability, debt crises etc (Chang, 1998; Galtung & Ruge, 1965; Kim & Barnett, 1996; Mohammadi et al., 1987; Mowlana, 1985). Hence, this study also found support to these scholars that there are significant differences in the determining issues of international news about the core, periphery and semi-periphery countries in tweets of international news agencies (Table 5). Core and semi-periphery countries are mostly tweeted due to their foreign relations, entertainment & human interest. However, periphery countries are mostly tweeted by international news agencies due to the peace & conflict related issues (Figure 5).

Table 5
Differences in News Determinant Issues among Core, Periphery and Semi-Periphery Countries in Tweets of International News Agencies during 2010-16

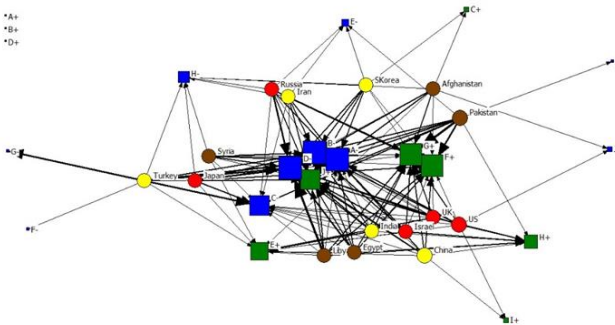
Count		World System Category			Chi-Square Tests
		Periphery	Semi-periphery	Core	
Determining issue of News Tweet	Peace & Conflict	5384	3171	4878	X ² = 8523.568 ^a p=.000
	Human Rights	1492	2600	2840	
	Democracy & Politics	1917	2182	2647	
	Environment & Disasters	335	2111	1419	
	Foreign Relations	2343	6080	8434	
	Trade & Economy	407	3575	2542	
	Science & Technology	134	1211	1541	
	Sports & Culture	113	1042	1415	
	Entertainment & Human Interest	700	3918	5645	
	Defense & Security	1348	1999	2509	
Total	14173	27889	33870		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 479.70.

In this way, international news agencies are presenting the distorted image of the under developed countries in their news tweets. So, twitter is not bringing any positive change in the attitude of international news agencies towards the news coverage of under developed nations. Hence, findings support the H6. The structural inequality in the global news coverage and flows are still prevailing on twitter in case of tweets of international news agencies.

Figure 1

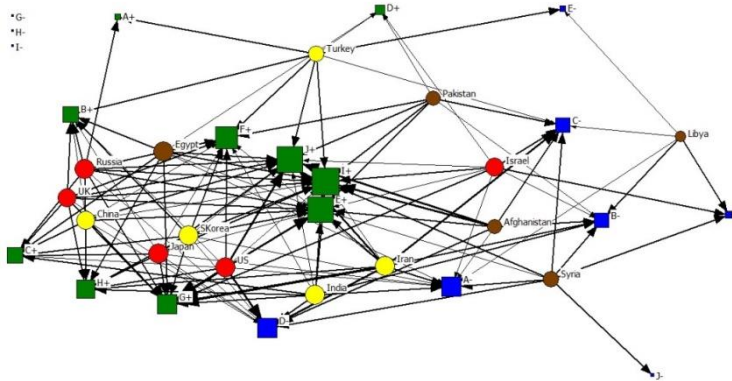
Network Analysis of Shared Portrayal of Core, Periphery and Semi-periphery Countries in Tweets of AFP during 2011-16



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Figure 2

Network Analysis of Shared Portrayal of Core, Periphery and Semi-periphery Countries in Tweets of AP during 2010-16



Note: Symbol size shows degree centrality and line thickness indicates the strength of association

- Core Country
 - Semi-Periphery Country
 - Periphery Country
 - Positive Valence
 - Negative Valence
- A=Peace & Conflict, B=Human Rights, C=Democracy & Politics, D=Environment & Disasters, E=Foreign Relations, F=Trade & Economy, G=Science & Technology, H=Sports & Culture, I=Entertainment & Human Interest, J=Defense & Security

Figure 3

Network Analysis of Shared Portrayal of Core, Periphery and Semi-periphery Countries in Tweets of Reuters during 2010-16

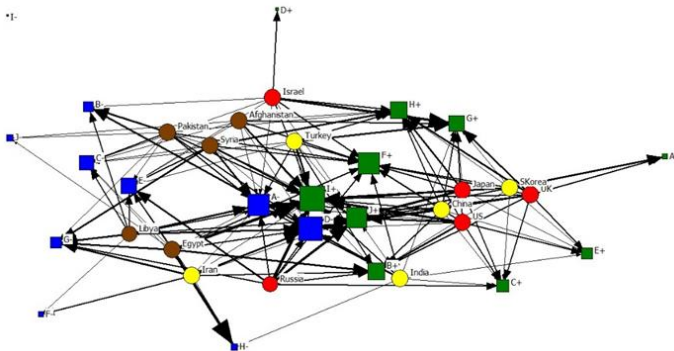
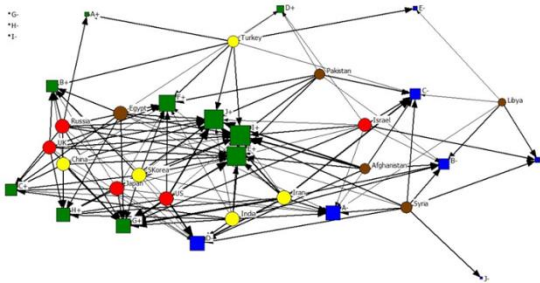


Figure 4

Network Analysis of Shared Portrayal of Core, Periphery and Semi-periphery Countries in Tweets of Xinhua during 2012-16



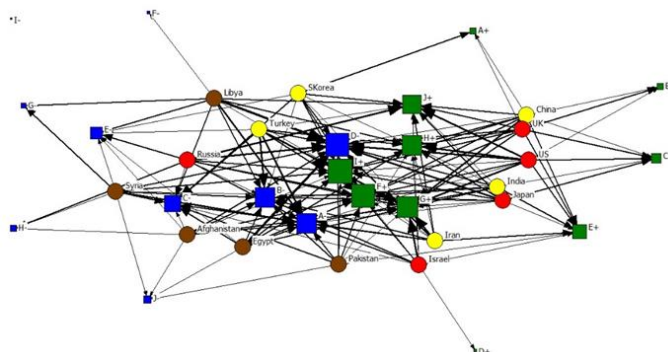
Note: Symbol size shows degree centrality and line thickness indicates the strength of association

● Core Country ● Semi-Periphery Country ● Periphery Country ■ Positive Valence ■ Negative Valence

A=Peace & Conflict, B=Human Rights, C=Democracy & Politics, D=Environment & Disasters, E=Foreign Relations, F=Trade & Economy G=Science & Technology, H=Sports & Culture, I=Entertainment & Human Interest, J=Defense & Security

Figure 5

Network Analysis of Shared Portrayal of Core, Periphery and Semi-periphery Countries in Tweets of International News Agencies during 2010-16



Furthermore, this study introduced the concept of shared portrayal for the study of collective impacts of tweets of international news agencies. The shared portrayal of countries is calculated according to the formula given in the methodological section. This study deals with the collective effect of a tweet, retweets, favorites, replies and portrayal. Because @replies and favorites allows the twitter users to interact with the news tweets (Bruns & Stieglitz, 2012; Willis et al., 2015; B. Wu & Shen, 2015; S. Wu

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et al., 2011). Secondly, retweet multiplies the magnitude of that tweet (Mendoza, Poblete, & Castillo, 2010). More importantly, portrayal determines the direction of that magnitude either its positive for a country or not. These features are important to study international news on twitter. This study maintained that there are significant differences in shared portrayal of core, periphery and semi-periphery countries via tweets of international news agencies (Table 4). Core and semi-periphery countries are valued more positively than periphery countries by international news agencies and their twitter followers (Table 4). Hence, the findings don't support the argument that twitter is altering the traditional information and portrayal imbalances among the nations. This study presents an empirical evidence to argue that not only the tweets of international news agencies, but also the followers of the international news agencies are reproducing the traditional structure of international news imbalances among the nations. Twitter followers of international news agencies are also taking part in this propagation. Therefore, this study validated H3 that proposes "shared portrayal of countries via tweets of international news agencies will more likely to vary among core, semi-periphery and periphery countries". In this way, tweets of international news agencies are also becoming instrumental and establishing their monopoly on the agenda of twitter users about the developed and under developed countries.

Furthermore, world system approach to international communication scholarship provides insights that there are significant differences among the core, periphery and semi-periphery countries in their representation and portrayal in international news agencies (Kick et al., 2011; Naustdalslid, 1977; Sorinel, 2010). Moreover, information flow studies also support the argument that developed and under developed countries are not treated and covered equally in international news. By examining the network structures of world countries and news determinants along with positive or negative direction, the study revealed that core countries are central to the news coverage of international news agencies (Figure 5). Furthermore, core countries are portrayed positively with focus on the issues of trade, economy, human rights, and peace & conflict (Figure 5). In addition, semi-periphery countries are also central to the coverage of international news agencies. However, their coverage is balanced. Semi-peripheral countries are negatively as well as positively portrayed on various issues. While, Iran is portrayed as negative because of its policies towards regional peace & conflicts and economic issues. China's negative portrayal is pertaining to environment & disasters (Figure 5). Moreover, it shows that peripheral countries are also central in the coverage of international news tweets. However, they are mostly portrayed in a negative context. Syria obtained high coverage but negative in tone. On the contrary, some news stories are having positive stance with reference to peace, stability, trade and economy (Figure 5). Here, it is noteworthy, that Syria is facing ongoing conflict and its major stake holders are developed countries, including Russia, and America. But these developed countries are covered and shared in context of peace implementers in the tweets of international news agencies.

In a nutshell, the significant differences in the news determining issues and their valence among the core, periphery and semi-periphery countries in the tweets of international news agencies were found (Figure 5). All these findings provide enough support to argue that tweets of international news agencies are reproducing the traditional information and communication imbalances among the developed and under developed countries. Their followers are also contributing side by side to spread their messages. Therefore, this study suggests that international communication scholars should work to formulate policy towards balance world view in interactive platform of twitter. So, findings of this study supports the H4 that “information flow imbalances among developed and under developed countries will more likely to exist in tweets of international news agencies”.

Table 6

Associations among the Tweets’ Valued Agenda of International News Agencies about Core Countries during 2010-16

		<i>AP</i>	<i>Reuters</i>	<i>Xinhua</i>
		Core Countries		
Core Countries	AFP	.794**	.666*	.886**
	AP		.843**	.684*
	Reuters			.544
		Semi-periphery Countries		
Semi-periphery Countries	AFP	.844**	.657*	.824**
	AP		.729*	.798**
	Reuters			.549
		Periphery Countries		
Periphery Countries	AFP	.773**	.094	.660*
	AP		.424	.836**
	Reuters			.456

****. Correlation is significant at the 0.01 level (2-tailed).**

***. Correlation is significant at the 0.05 level (2-tailed).**

In addition to news tweets of international news agencies, this study revealed that the followers of international news agencies also treat core & semi-periphery countries in a similar way. However, news agency of semi-periphery country, Xinhua and its followers share core and semi-periphery countries differently from the tweets and sharing of Reuters’ tweets (Table 6). The Figure 3 indicates that core countries are mostly covered and shared in the context of trade, economy, entertainment, human interest and defense and security with a positive coverage direction by the followers of Reuters. However, Russia was critically covered regarding science and technology, and foreign relations. It shows that core countries are mostly liked and shared in a

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positive context by the followers of Reuters (Figure 3). The Figure 4 indicates that in tweets of Xinhua core countries are mostly shared in a positive direction as well. While, in some news stories related to disasters and environment, U.S shared negatively. Israel also shared critically in context of democracy and politics in the tweets of Xinhua. Overall, Xinhua presents core countries in a positive context on defense, security, entertainment, human interest, and foreign relations in its news tweets (Figure 4).

Similarly, the Figure 3 indicates that semi-periphery countries are shared in a positive as well as negative direction by the followers of Reuters. India is shared critically due to human rights violations and while, Iran is shared negatively with reference to disasters, environment, science and technology issues. On the other side, China, Turkey and South Korea are covered and shared in context of entertainment, human interest, trade, economy, science and technology. The figure 4 points out that followers of Xinhua, like and share semi-periphery countries in a positive context, however, Iran is negatively shared.

This study also revealed that the tweets of international news agencies and their followers treat periphery countries in a negative context as well. However, Reuters and its followers share periphery countries differently from the tweets and sharing of other three news agencies (Table 6). Reuters and its followers also have considerable sharing of under developed countries in a positive direction (Figure 3) as compare to AP (Figure 2), AFP (Figure 1) and Xinhua (Figure 4). Therefore, findings provide partial support for the confirmation of H5 that “there would be no significant differences in Twitter agenda of international news agencies about developed and under developed countries”. The findings imply although news agencies of developed countries have similarities in their agenda of international news about the developed and under developed countries, yet this study also found some diversity and differences in international news agenda of Reuters and Xinhua. Similarly, followers of different news agencies also consume the news tweets differently. Therefore, this study argues that the twitter is amplifying the hegemony of dominant international news agencies on international news sharing yet semi-periphery and periphery countries may also challenge this hegemony through activating their own international news agencies on twitter. Like Chinese news agency Xinhua is not only encountering but also propagating international news on twitter with his own perspective. To sum up, sum, this study argues that twitter provides an equal opportunities not only to the developed but also to the under developed countries for the distribution of international news. However, resources, news gathering, production and professionalism are still challenges for under developed countries.

Conclusion

This study concluded that the communication imbalances among the developed and under developed countries in the tweets of international news agencies are strongly

exits. Developed countries are covered and shared more positively along with positive or soft news determinants like trade, economy, science, technology, foreign relations, entertainment and human interest. On the contrary, under developed countries are covered less and gained negative coverage related to conflicts, disasters, political instability and human rights violations. However, developing or semi-periphery countries like China are gaining the positive coverage in international news. Chinese news agency Xinhua is effectively competing the western news agencies to build a positive image of China in global news flow.

This study maintained that under developed countries are mostly shared negatively due to the conflicts and political instability. Here, it is noteworthy to mention that most of the conflicts in under developed countries had direct or indirect link with the military interventions of developed countries. For example, in Syria, Egypt, and Afghanistan, the developed countries like Russia, U.S and Israel are stake holders. Therefore, it is claimed that international news agencies are instrumental in the negative portrayal of under developed countries.

Finally, it is concluded that international news agencies are reproducing the traditional world hierarchies in the distribution of international news rather than changing or replacing it. Although social media is playing an important role as an alternative media, yet it has several limitations. It is not effectively changed the structures and patterns of international news distribution. In the modern information societies there is a need to formulate the global communication policy to create and disseminate balanced world view in social media platforms generally and on news tweets specifically.

Limitations and Future Recommendations

The study has some limitations. Firstly, the limited numbers of countries and mainstream Twitter accounts of sample news agencies were selected. Further studies should be extended to the regional twitter accounts of international news agencies. Secondly, this study focused only on English language tweets. Now, international news agencies are also distributing news in regional languages from their regional accounts. This area can be explored further in the native languages. Finally, this study only focused on the number of retweets, @replies and number of favorites. Moreover, the quantitative technique is employed. The content of retweets, quote tweets and @replies was excluded. Moreover, the authenticity of the followers of international news agencies is also a limitation of this study

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Appendix I

Descriptive of Sample Core, Periphery and Semi-periphery Countries in News Tweets of International News Agencies from 2010-16

Countries	Frequency	Reply Mean	Retweet Mean	Favorite Mean	Shared Portrayal
United States	20534 (27%)	7.6880	95.4695	81.9669	47.6376
Libya	1242 (1.6%)	2.4219	100.0040	18.8815	-70.7583
Japan	2860 (3.8%)	3.7685	95.3294	38.8463	.8379
Egypt	2401 (3.2%)	3.7634	97.2608	28.7350	-42.8329
China	16102 (21.2%)	2.2936	49.9401	44.5806	41.3910
Iran	5296 (7%)	6.3612	83.2474	66.1261	7.4690
United Kingdom	2835 (3.7%)	4.7464	92.3280	42.2561	61.0268
Syria	6758 (8.9%)	5.4358	100.5917	38.5598	-66.9062
Israel	3262 (4.3%)	3.1983	94.9917	29.5170	-31.9945
Pakistan	1792 (2.4%)	4.2874	77.0714	28.2913	-48.6283
South Korea	1371 (1.8%)	3.8519	87.3815	40.2020	3.6579
Russia	4379 (5.8%)	6.1937	112.9016	52.6145	-14.9573
Afghanistan	1980 (2.6%)	4.4015	77.0389	28.5455	-47.3657
India	1959 (2.6%)	3.4824	72.4893	31.8469	-14.6874
Turkey	3161 (4.2%)	7.6229	126.7602	51.6798	-51.5359
Total	75932	5.1579	86.0603	53.3312	8.9416

Appendix 2

Frequency of News Tweets about the Selected Countries in Tweets of Different News Agencies during 2010-16

Countries Name * News Agency Crosstabulation

Countries Name	News Agency				Total
	AFP	AP	Reuters	Xinhua	
United States	2810	3454	6434	7836	20534
Libya	276	342	593	31	1242
Japan	563	662	1086	549	2860
Egypt	691	705	909	96	2401
China	1077	826	1866	12333	16102
Iran	739	527	1740	2290	5296
United Kingdom	863	869	872	231	2835
Syria	2597	1643	2226	292	6758
Israel	1076	972	1083	131	3262
Pakistan	723	415	502	152	1792
South Korea	360	431	363	217	1371
Russia	1835	1226	735	583	4379

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Afghanistan	618	645	647	70	1980
India	813	400	460	286	1959
Turkey	1343	516	1159	143	3161
Total	16384	13633	20675	25240	75932

Appendix 3

Portrayal of Countries in News Tweets of International News Agencies during 2010-16

Countries Name * Portrayal of the Country Crosstabulation

Countries Name	Portrayal of the Country			Total
	Negative	Neutral	Positive	
United States	5521	4733	10280	20534
Libya	849	153	240	1242
Japan	1185	376	1299	2860
Egypt	1474	219	708	2401
China	3025	1470	11607	16102
Iran	2400	566	2330	5296
United Kingdom	566	554	1715	2835
Syria	4784	342	1632	6758
Israel	1989	257	1016	3262
Pakistan	1106	246	440	1792
South Korea	576	183	612	1371
Russia	1986	469	1924	4379
Afghanistan	1281	274	425	1980
India	915	460	584	1959
Turkey	1696	304	1161	3161
Total	29353	10606	35973	75932