

A Quantitative Analysis of Governments' Use of Interactive Media as a Global Public Relations Strategy

Ji Young Kim, M.A., and Juan-Carlos Molleda, Ph.D.

Globalization, globalism, and the development of communication technology have increased the complexity and the professional status of public relations around the world (J. Grunig & Dozier, 1992; J. Grunig & Hunt, 1984; Kazoleas & Teigen, 2006). Global public relations scholars have argued that transparent organizations need to deal with stakeholders not only in their home country, but also in host countries where they operate, and governmental sectors also need to communicate with key stakeholders in other nations (Molleda, Connolly-Ahern, & Quinn, 2005; Molleda & Laskin, 2009). Even though the body of knowledge on global public relations has been growing, government sector's public relations efforts have not been fully documented.

The parallels between public diplomacy and public relations have been the focus of studies on the scholarship of both academic fields. Governments face challenges because of the increasing global interdependency, and government-communication strategies have been shifted from propaganda to a two-way communication or dialogic approach (Taylor & Kent, 1999; Taylor, 2000). Governments need to monitor public opinion in host communities to build long-term relationships with host stakeholders.

Interactive media have been useful tools to implement two-way communication since they provide immediate reaction opportunities for stakeholders and organizations (Kazoleas & Teigen, 2006; Kent & Taylor, 1998). Using interactive features on the Web, home and host stakeholders not only seek and receive what governments announce, but also request or provide feedback to governments and their agents.

Several public relations scholars have emphasized the role of interactive media in two-way communication through website analysis (Delouvrier, 2008; Lee, 2006; Naudé, Froneman, & Atwood, 2004; Stout, Villegas, & Kim, 2001). This study is a website analysis for global government public relations. The purpose of this study is to develop an in-depth understanding of political and socioeconomic environmental factors, which enhance global online public relations by governments in terms of interactivity and dialogic features.

LITERATURE REVIEW

Although few public relations models have been used to explain government public relations effectively, scholars have agreed that government is one of the key stakeholders for most organizations (J. Grunig & Dozier, 1992; J. Grunig & Hunt, 1984) and have studied the impact of the social environment on the government sector's public relations practices (J. Grunig & Jaatinen, 1999; Liu & Horsley, 2007). Dewey (1927) defined a public as a group of people who "endeavor to act" and "to organize itself" (p. 29). The management of stakeholders affects the effectiveness of organizations (or nation states) (J. Grunig & Dozier, 1992; J. Grunig & Hunt, 1984). From a management perspective, government public relations face a much more complex environment than corporate public relations; several arrays of stakeholders are engaged in government public relations, and its impact is critical on a society as a whole domestically and internationally. Hence, the global level of analysis was recently added due to the increase of the interdependency of the world and the evolution of communication technology (Goldstein, 1994).

Undoubtedly, nation states are key players in the network of intertwined global relationships. Signitzer and Warmser (2006) noted the similarities between public relations and international relations. These scholars also used the term public diplomacy to explain direct communication efforts of a national government toward foreign stakeholders. Malone (1985) said that the aim of public diplomacy is to affect foreign stakeholders' thinking and to ultimately affect the policy making their national governments.

L'Etang (1996) outlined the expecting functions by diplomats or public relations practitioners as gathering information, representing stakeholders, being dialogic, and providing counsel. Moreover, Kunczik (1997) said that the image cultivation of a nation

has been a main activity in international public relations. Although an image or identity of a nation is highly emphasized during war times, nation building is still a fundamental goal of a government, and governments consider communication as a strategy to build a national identity especially with foreign stakeholders (Kunczik, 1997).

Political and Socioeconomic Variables

To study public relations practices in the international context, theorists have suggested several variables such as political and legal systems, level and type of activism, societal culture, level of economic development, and media infrastructure and practices (Sriramesh & Verčič, 2001, 2003; Verčič, L. Grunig, & J. Grunig, 1996). Using these environmental variables, scholars have drawn attention to the specific public relations practices by regions or countries rather than a unified global public relations model (e.g., Braun, 2007; Molleda & Moreno, 2006; Molleda & Moreno, 2008; Molleda & Suarez, 2005).

In their documentation about the impact of socioeconomic and political conditions on public relations in Latin American countries, Molleda and Moreno (2008) explained the balance role of public relations professionals in transitional environments. Emphasizing the need for the contextual understanding of public relations, the authors describe the trends of contemporary political and socioeconomic developments of a nation as a transitional period toward a full democracy and a functional capitalism (Molleda & Moreno, 2008).

Larsson (2006) noted that a democratic debate in the public relations field took place back in 1988 when Kruckeberg and Starck published *public relations and community*. The social and democratic debate arose through the '90s and public relations scholars sought a contribution of the profession to community and citizenry (Larsson, 2006). Consequently, scholars have used the term social responsibility or communitarianism to describe the role of public relations within a community (Leeper & Leeper, 2001; Leeper, 2001). These debates increased private and individual's participation in public-sector practice which is a key component for democracy along with equality and transparency (Larsson, 2006).

Sriramesh's (2004) Asian study added pluralism as another essential element to the philosophy of the Western democracy. He stated that in a pluralistic society, public opinion is empowered and economic freedom is increased based on the open-market

system. Molleda and Laskin (2009) stated that in an open economic system, multiple individuals and organizations compete to seek legitimacy through interaction with their stakeholders nationally and internationally.

In the international marketplace, one should communicate with stakeholders in different countries including foreign governments and communities. This fuels the debate on the increased opportunities and challenges for global public relations (Molleda & Laskin, 2009). Sriramesh (2004) also mentioned that strategic public relations and communication management can thrive in competitive environments through the achievement of legitimacy and power.

Transparency

Larsson (2006) explained that participation, equality, and transparency are three key components for democracy. Hence, the democratic value of a society is improved when the level of transparency increases and citizens or grassroots groups actively participate in decision-making process of social processes that determine their subsistence (Larsson, 2006).

The level of transparency of a society seems to be a key factor that determines a society's attractiveness as a place for investment, tourism, or political alliance. It also means that non-transparent characteristics of a society could increase the risk and uncertainty, which therefore will negatively affect the attractiveness of a given society to international stakeholders such as foreign investors, tourists, or political allies (Drabek & Payne, 2002).

Using the term corruption as an opposing concept of transparency, Transparency International (TI) has suggested measuring the level of corruption to assess the extent of transparency present in a political system. Corruption was defined as a misuse of authority or power by public officials to obtain private benefits (Schleifer & Vishny, 1993). TI has led the fight against corruption with 90 nation members around the world, and its main purpose is to raise awareness of the negative impact of corruption on societies and to measure the level of corruption in the world. The TI chair states that "human suffering and poverty around the world remains immense as a direct consequence of corruption and greed" ("Annual report," 2008, p. 1). To increase transparency in the world, TI has contributed to reduce corruption in government and politics, judiciary, information access process, public procurement, private sector, and international

conventions (“Annual report,” 2008). It also has reinforced governments providing policy papers, guidelines, and regulations to publicize what the government is doing and to increase stakeholders’ trust in government and politics (“Annual report,” 2008).

Economic Freedom

Sriramesh (2004) argued that a pluralistic society and multiple competitive players are key elements for the Western democratic society. In their report of economic freedom around the world, the Heritage Foundation and *The Wall Street Journal* looked at the degree of government intervention in the economy of a nation to analyze to what extent a country’s economic system will be efficient. Particularly, the index is determined by the following 10 indicators: Business (i.e., freedom from government), trade (i.e., level of tariff barriers), fiscal (i.e., burden of tax), monetary (i.e., stability of price), investment, financial freedom, and labor freedom, as well as property rights, freedom from corruption, and government expenditure size (“Index of Economic Freedom,” 2008, p. 2).

The sponsors of the index argued that economic freedom is strongly associated with other cross-country variables such as prosperity rights, gross domestic product, per capita income, and unemployment rate in a given country. The Heritage Foundation and *The Wall Street Journal* examine the economic freedom of 162 countries and distribute the global assessment Index (“Index of Economic Freedom,” 2008).

Readiness of E-government

Interactive media development based on the Internet is another important factor that has the potential to influence reforms and changes in the political and socioeconomic environments of a society (Kazoleas & Teigen, 2006). The development of communication technologies has created opportunities or challenges for the government sector. Today, national and foreign citizens have more access to government information, and they actively participate in governmental decision making; that is, political participation seems to be increasing in many nations (Larsson, 2006). Empowering citizens’ participation in social and political debates, the interactive media has contributed to the development of democratic society and to increase the level of participation, equality, and transparency of a society (Larsson, 2006).

The United Nations noted that non-governmental sectors such as private, stakeholders, or communities expect better performance and service from their governments, and governments need the trust of its citizens to build a successful relationship with their

stakeholders (“Global E-government Survey,” 2008). Governments have reformed their communication infrastructure with innovative structure and practices to meet their public relations goals, and public administrations in many countries around the world have shed light on proactive, efficient, transparent, and service-oriented public communications. In this context, information and communication technologies have taken an important place in empowering the public sector to achieve their social and economic-transformation goals.

The United Nations uses the e-government concept to indicate the capacity of government to lead the social transformation and to support cost-effective government practices. Specifically, e-government can improve ‘the speed and efficiency of operations by streamlining processes, lowering costs, improving research capabilities, and improving documentation and record-keeping’ to achieve social transformation (“Global E-government Survey,” 2008, p. xii).

Interactive Media and Public Relations

The demand for direct communication between governments and home and host stakeholders has enhanced the public relations practices by the public sector and emphasized the trust-based relationship between citizens and government (Kazoleas & Teigen, 2006; J. Grunig & Dozier, 1992; J. Grunig & Hunt, 1984). From a net-relations perspective, organizations or governments use interactive media as a relationship-building tool to satisfy citizens’ demand for public access to information and social engagement (Kazoleas & Teigen, 2006). Moreover, the interactive media have been changed the characteristics of public relations from top-down information model to bottom-up communication approach (Kazoleas & Teigen, 2006).

Kent and Taylor (1998) introduced the dialogic communication theory which considers dialogue as a byproduct of J. Grunig and Hunt’s (1984) two-way symmetrical process in the World Wide Web context. According to Kent and Taylor (1998), organizations can provide information not only that they want to deliver to stakeholders, but also that stakeholders demand from organizations. The authors indicated five requirements for interactive online public relations: Usefulness of information, generation of return visit, ease of the interface, the rule of conservation of visitors, and dialogic loop (Kent & Taylor, 1998). Moreover, Kent and Taylor (2002) indicated five principles of dialogue: mutuality, propinquity, empathy, risk, and commitment.

Website analysis has been a useful tool to look at the interactive communication practice in a variety of study areas (i.e., Delouvrier, 2008; Lee, H. M, 2006; Naudé et al., 2004; Stout et al., 2001). Naudé et al. (2004) examined South African non-governmental organizations' websites and concluded that dialogue is a critical factor to measure the level of interactive communication condition. Ledingham and Bruning (2000) also said that dialogic or relational public relations practices became a mutually beneficial platform for both organizations and stakeholders they work with. Dialogue has been critical strategies not only for interpersonal relationship but also Internet communication (Taylor, Kent, & White, 2001). McMillan and Hwang (2002) addressed that interactivity can be defined by multiple facets such as direction of communication, user control, and time. Similarly, Bezjian-Avery, Calder, and Lacobucci (1998) defined it as the system that allows a "customer control the content of the interaction" and that allows "the customer and the manufacturer enter into dialogue" (p. 23).

In their study of health-related websites, Stout et al. (2001) used the following dimensions to assess the interactivity of a website: navigation, personalized content, site accessibility, and feedback. Lee (2006) applied the interactivity items to study the use of the Internet as a strategic tool for public diplomacy.

Kent, Taylor, and White (2003) explained that the dialogic concept increase the need of effective organization-public communication channel building by organizations. Particularly, the dialogic framework has been emphasized for organizations which much depend on their external stakeholders and their environment (Kent et al., 2003). Government is one example of the organizations relying on external public and Internet-mediated channels would help government increase its dialogic capacity for better relationship building.

In this study, the researchers explore global public relations efforts through governments' websites and examine the relationships between interactive media use and political and socioeconomic environmental factors, such as transparency, economic freedom, and readiness of e-government. The following research question and hypothesis were posed:

RQ1: What are the most used interactivity functions/dimensions for the official websites of national government?

H1: Transparency, economic freedom, readiness of e-government of a nation will be significantly related to the interactive media use for the official websites of the national governments.

Moreover, the three political and socioeconomic indicators show different levels among the regions of the world. Transparency International reports the percentage of respondents who expect increasing corruption between 2003 and 2007 (“Annual report,” 2008, p. 29). The percentage of expecting corruption in 2007 shows that the Asia Pacific region has the highest level about 70 percent followed by the European Union (60%), North America (60%), Latin America (55%), South East Europe (47%), and Africa (38%). In 2003, the percentage of expecting corruption was led by South East Europe (60%) followed by Africa (49%), the European Union (45%), Latin America (40%), North America (38%), and the Asia Pacific region (30%) (“Annual report,” 2008).

The Index of Economic Freedom reports the average economic freedom scores of the five regions as Europe (67%), the Americas (62%), the Asia Pacific region (59%), the Middle East / North Africa (59%), and Sub-Saharan Africa (55%); when it weighted by populations, the levels are shown as the Americas (67%), Europe (63%), Sub-Saharan Africa (56%), the Asia Pacific region (54%), and the Middle East / North Africa (55%) (“Annual report,” 2008, p. 57). Finally, the United Nations notes that there is the difference in the average level of readiness of e-government between the five regions: Europe (0.6490), the Americas (0.4936), Asia (0.4470), Oceania (0.4338), and Africa (0.2739) (“Global E-government Survey,” 2008, p. 19). In regard to the regional differences, this research study also proposed the following hypothesis and research question:

H2: The use of interactive media for the official websites of the national governments is significantly different among the seven regions of the world analyzed.

RQ2: How are the interactivity functions/dimensions for the official websites of national government different among the seven regions of the world analyzed?

METHOD

Sampling and Content Analysis

To study online public relations efforts of governments around the world, a quantitative content analysis was conducted with 118 governmental websites from 30 countries in seven regions. The sample of countries was selected based on the secondary data available from the transparency, economic freedom, and e-government annual reports. The following countries' official websites of national governments are selected: All functional 39 websites out of 41 were collected from Europe (Bulgaria, Denmark, Hungary, Netherlands, Poland, Switzerland, Turkey, and United Kingdom), nine out of 14 from North America (Canada and United States), 14 out of 15 from Oceania (Australia and New Zealand), 11 out of 16 from Latin America (Brazil, Chile, Mexico, and Venezuela), 29 out of 37 from Asia (Bangladesh, China, India, the Republic of Korea, Singapore, Sri Lanka, and Vietnam), six out of nine from Middle East (Iran and Saudi Arabia), 10 out of 14 from Africa (Burundi, Egypt, Ethiopia, Kenya, and South Africa).

Variables: Transparency

Transparency International measures the degree of corruption around the world to raise awareness of negative impact of corruption on societies. The civil society organization provides the Corruption Perception Index (CPI) which scores the perceptions of corruption of public sectors. This study uses the CPI in which 14 experts evaluate 180 countries and territories on a scale from zero to 10, in which zero indicates the lowest level of corruption and 10 indicates the highest level of corruption ("Annual report," 2008).

Economic Freedom

To measure the degree of economic freedom, this study uses the Index of Economic Freedom (IEF) provided by the Heritage Foundation and *The Wall Street Journal*. The index shows the overall economic freedom which combines 10 specific indicators: business, trade, fiscal, monetary, investment, financial, and labor freedoms, as well as government size, property right, and freedom from corruption. According to this index, the 10 scores are weighted equally with a scale of zero to 100, in which 100 indicates the highest level of freedom and the distribution indicates that a country's economy is free (80-100), mostly free (70-79.9), moderately free (60-69.9), mostly unfree (50-59.9), and repressed (0-49.9) ("Index of Economic Freedom," 2008).

E-government

The United Nations provides the E-government Readiness Index (ERI) composed by three sub categories: Web Measure Index (WMI), Telecommunication Infrastructure Index (TII), and Human Capital Index (HCI) (“Global E-government survey,” 2008). The WMI is measured in a binary value (0 absent, 1 present) to the indicators whether specific electronic facilities/services available on national websites. The TII is measured by a weighted composition of six primary indicators: PCs/1000 persons, Internet users/1000 persons, telephone lines/1000 persons, online populations, mobile phones/1000 persons, and TVs/1000 persons (‘Global E-government Survey,’ 2008). Then, the relative scores, between zero and one, are calculated by the following formula: $\text{Indicator value} = (\text{Actual value} - \text{Minimum value}) / (\text{Maximum value} - \text{Minimum value})$ (“Global E-government Survey,” 2008, p. 219).

Finally, to measure human capital, the United Nations examined the adult literacy rate, and primary, secondary and tertiary gross enrolment ratio of a society; and then, they scored the overall HCI with “two thirds weight given to the adult literacy rate and one third to the gross enrolment ratio” (“Global E-government Survey,” 2008, p. 17).

Interactive Communication

This study examines how a government’s website is interactive to see what extent a government uses interactive media for the practice of online public relations. Kent and Taylor (1998) introduced five requirements of online public relations which are usefulness of information, generation of return visit, ease of the interface, the rule of conservation of visitors, and dialogic loop. The scholars also added to an understanding of the characteristics of dialogue-mutuality, propinquity, empathy, risk, and commitment (Kent & Taylor, 2002).

According to Kent, Taylor, and White (2001), ease of interface indicates whether users have easy time navigating the site through search box, site map, or links; usefulness of information indicates whether the website provide useful information to its primary stakeholders such as customers and media; conservation of visitors indicates how much the Web is successful to keep their public on it; return visit indicates how much the website encourages stakeholders to come back to it; and dialogic loop indicates whether the Web provides dialogic interactivity. In this current study, dialogic feature, instead of dialogic loop, will be used because only Web content was analyzed not real

responses were (Kent et al., 2001). For a complete coding list, this research also referred coding guidelines from previous research studies (i.e., Delouvrier, 2008; Lee, 2006; Stout et al., 2001).

Data analysis

Using the Statistical Package for the Social Sciences (SPSS), Spearman's rho, one-way ANOVA, and descriptive analysis were conducted to test two hypotheses and to answer to the two research questions. Intercoder reliability between two coders was .86 (Holsti, 1969), and Cronbach's α was measured for the 46 interactivity index ($\alpha = .90$).

RESULTS

This study aims to examine the influence of political and socioeconomic variables on the interactive media use of national governments. One hundred eighteen national government websites were analyzed from 30 different countries around the world. To consider differences by each region of the world, this study selected 30 nations from the following seven regions: Europe, Oceania, North America, Latin America, Asia, Middle East, and Africa.

In particular, the highest level of transparency was reported in Oceania ($M = 9.00$, $SD = .57$), followed by North America ($M = 7.95$, $SD = 1.06$), Europe ($M = 6.69$, $SD = 2.46$), Latin America ($M = 4.00$, $SD = 2.12$), Asia ($M = 3.90$, $SD = 2.21$), and Africa ($M = 3.00$, $SD = 1.21$). Second, the highest level of economic freedom was found in Oceania ($M = 81.10$, $SD = 1.27$), followed by North America ($M = 80.40$, $SD = .28$), Europe ($M = 70.70$, $SD = 8.98$), Latin America ($M = 61.78$, $SD = 14.86$), Asia ($M = 58.01$, $SD = 13.52$), and Africa ($M = 56.30$, $SD = 6.64$). In terms of e-government, the highest level is reported in North America ($M = .84$, $SD = .03$), followed by Oceania ($M = .78$, $SD = .05$), Europe ($M = .71$, $SD = .15$), Latin America ($M = .56$, $SD = .04$), Asia ($M = .50$, $SD = .17$), and Africa ($M = .34$, $SD = .16$).

In regard to our first research question, asking what interactive functions are mostly used on the national government websites, the descriptive analysis shows that the majority of the official websites utilized a site map (67%), a search tool (87%), site ID (90%), navigation items (97%), and internal Web links (99%) to help users to explore the online portals. Also, the most frequently used government communication resources were news releases (67%) and news (60%). It shows that majority of sampled nations utilizes a government website to provide public relations information to domestic and foreign stakeholders (see Table 1).

Table 1. Percentage for Interactivity Dimension in Government Websites (N = 118)

<i>Interactivity dimension^a</i>	<i>Official website of government (N = 118)</i> %
Site map**	68.6
Search box	87.3
Internet search option	15.3
Visual noise (-)**	66.1
Site ID use**	89.8
Navigation	96.6
Internal link use	99.2
External link use**	72.0
Text/graphic version	8.5
Pull down menu use*	53.4
Downloadable software	11.9
Mission statement**	61.0
Member login or recruiting	19.5
Partnership information**	26.3
Press release*	66.9
Annual reports	42.4
News*	60.2
Speeches	47.5
Case study	8.5
Other online resource	89.0
Logo*	89.0
Media contact*	46.6
Visual (image or chart)*	50.0
Visual (audio or visual)	28.8
Short load time**	81.4
Dead link (-)	94.1
Update information**	64.4
Language (English)	95.8
Language (French)*	11.9
Language (Spanish)*	9.3
Language (Chinese)	4.2
Language (Arabic)*	5.9
Language (Others)**	48.3
Returning invitation*	8.5
Glossary*	25.4
FAQ	39.0

Bookmark option	5.1
Event calendar*	52.5
Request/download data**	70.3
Feeds*	33.1
Latest news update*	23.7
Organization contact	91.5
Feedback*	47.5
Help*	33.9
Survey	11.0
Vote	.8

Note. ^a Items that a significant difference observed among seven regions.

(** $p < .01$, * $p < .05$)

A language variety is one of the critical factors to communicate with foreign stakeholders. This study analyzed only the English version of government websites. Few governments provide websites in foreign languages other than English, such as French (12%) and Spanish (9%). Finally, almost all governmental websites posted their organizational contact information to communicate with online users (N = 118, 92%). Enhanced dialogic functions such as feedback (48%), help (34%), survey (11%), and voting (1%) were not fully utilized.

Then, hypothesis one predicted relationships between a nation's political and socioeconomic variables and the overall level of interactive features of the nation's government website. As shown in Table 2, there are positive relationships between the three political and socioeconomic variables (i.e., transparency, economic freedom, and E-government) and the interactive feature uses of the nation's governmental websites. In particular, there is a strong positive relationship between transparency and interactive features ($r_s = .650$, $p < .01$); between economic freedom and interactive features ($r_s = .500$, $p < .01$); and between E-government and interactive features ($r_s = .705$, $p < .01$). Hence, our first hypothesis is supported.

Table 2. Correlation of Issue between Transparency, Economic Freedom, and E-government and Interactivity of the National Government Websites (N = 30)

	2	3	4
1. Transparency	.889**	.872**	.650**
2. Economic freedom		.826**	.500**
3. E-government			.705**
4. Interactivity			

(** $p < .01$)

Our second hypothesis predicts a significant difference in the interactive media use for the official websites of national governments in seven different regions around the world. The result of one-way analyses of variance (ANOVA) offers positive support for the hypothesis ($F(6, 117) = 11.92, p < .001$). In particular, the level of interactive media use was found high in countries of North America, Oceania, and Europe; moderate in the countries in Latin America and Asia; and low in countries of Africa and Middle East (see Table 3).

Table 3. One-way ANOVA for the Interactivity of National Government Websites by Region of the World (N = 118)

Variables	Region of the world							F	df	Sig.
	Europe	North America	Oceania	Latin America	Middle East	Asia	Africa			
	Mean (& SD) (N = 39)	Mean (& SD) (N = 6)	Mean (& SD) (N = 14)	Mean (& SD) (N = 11)	Mean (& SD) (N = 6)	Mean (& SD) (N = 29)	Mean (& SD) (N = 10)			
Interactivity	25.51 (-7.68)	27.44 (-4.48)	25.71 (5.34)	19.09 (3.56)	11.50 (1.97)	18.62 (6.25)	13.00 (6.36)	11.92	6	0

Our second research question asked how the interactive functions/dimensions for the official websites of national government are different among the seven regions of the world analyzed in this study. The data shows significant differences in the following interactive feature items among seven regions: visual noise, use of site ID, mission statement, partnership information, media contact, short load time, update information, language (Spanish and others), and request/downloadable data. Technically, government websites of the countries in Europe, North America, and Oceania have low level of visual noise ($X^2 = 31.80, df = 6, p < .000$) and short loading time ($X^2 = 36.22, df = 6, p < .000$) than the websites of other regions of the world. Also, compared with others, countries in Europe and Oceania share a variety of information on their governmental websites such as mission statement ($X^2 = 33.21, df = 6, p < .000$), partnership information ($X^2 = 26.10, df = 6, p < .000$), or downloadable data information ($X^2 = 33.79, df = 6, p < .000$). Furthermore, news release ($X^2 = 13.97, df = 6, p < .000$) and news ($X^2 = 17.09, df = 6, p < .000$) are the one of the most frequently used resources on the governmental websites in North America, Oceania, Europe, and Asia (see Table 4).

Table 4. Cross-tabulation of the Interactivity Dimension of National Government Websites among the Regions of the World (N = 118)

<i>Interactivity Variables</i>	<i>Region of the world</i>							χ^2	df	p
	Europe % (N = 39)	North America % (N = 6)	Oceania % (N = 14)	Latin America % (N = 11)	Middle East % (N = 6)	Asia % (N = 29)	Africa % (N = 10)			
Site map	79.5	100	92.9	45.5	50	58.6	30	22.064	6	0.001
Visual noise (-)	82.1	88.9	92.9	72.7	0	44.8	60	31.799	6	0
Site ID	92.3	100	100	90.9	66.7	100	40	36.868	6	0
External links	84.6	100	85.7	72.7	16.7	62.1	40	23.516	6	0.001
Pull-down menu	61.5	88.9	71.4	63.6	0	41.4	20	20.927	6	0.002
Mission statement	82.1	66.7	92.9	63.6	0	34.5	40	33.206	6	0
Partnership info	48.7	11.1	50	9.1	0	6.9	10	26.084	6	0
Press release	69.2	100	71.4	54.5	16.7	72.4	50	13.972	6	0.03
News	69.2	100	78.6	36.4	33.3	48.3	40	17.085	6	0.009
Logos	94.9	100	100	81.8	66.7	93.1	50	23.855	6	0.001
Media contact	71.8	66.7	71.4	36.4	0	24.1	0	35.178	6	0
Visual (image)	79.5	55.6	35.7	36.4	16.7	37.9	20	23.593	6	0.001
Short time load	100	100	100	81.8	33.3	58.6	60	36.222	6	0
Update info	89.7	100	57.1	63.6	16.7	41.4	40	31.492	6	0
Language (French)	20.5	44.4	7.1	0	0	3.4	0	17.823	6	0.007
Language (Spanish)	2.6	11.1	0	72.7	0	3.4	0	58.724	6	0
Language (Arabic)	5.1	11.1	0	0	33.3	0	20	15.503	6	0.017
Language (others)	84.6	11.1	7.1	9.1	66.7	48.3	30	44.002	6	0
Glossary	38.5	33.3	50	9.1	0	13.8	0	17.325	6	0.008
Event calendar	64.1	55.6	85.7	36.4	16.7	41.4	30	16.04	6	0.014
Download data	89.7	66.7	100	63.6	0	58.6	40	33.786	6	0
Feeds	43.6	77.8	42.9	18.2	33.3	17.2	0	20.015	6	0.003
News update	38.5	33.3	42.9	9.1	0	10.3	0	17.117	6	0.009

Feedback	53.8	88.9	71.4	27.3	16.7	41.4	10	20.195	6	0.003
Help	46.2	88.9	28.6	27.3	0	20.7	10	23.037	6	0.001

DISCUSSION

Compared to traditional media, Internet-based interactive media have more advantages to incorporate visual and innovative items such as interactive maps, games, and Podcasts. In the context of national government websites, this research observed that governments develop unique features on their online portals and utilize these features to communicate specially with foreign online visitors.

Dialogic communication has been emphasized in discussions of the development of modern strategic public relations and the cultivations of relationships among all types of organizations. Practically, public relations practitioners are expected to use dialogic strategies and to provide counsel. These fundamental discussions of dialogic communication have grown rapidly because of the development of the World Wide Web and other communication technologies.

Public relations theorists consider dialogue as a byproduct of two-way process in the Internet environment (Kent & Taylor, 1998). The dialogic nature of Internet media has increased the interactions between organizations and home and host stakeholders, and interactive media enhanced the communication and relationship-building and cultivation functions of public relations practitioners. Dialogic communication appears to be enhanced by feedback from stakeholders to organizations and mutually-beneficial relationships. On the Web, stakeholders not merely consume information from organizations, they also can request and provide opinions to organizations. Analyzing governmental websites, this study attempted to explore interactive communication strategies for global public relations by the government sector.

Statistical tests were conducted to validate relationships between a nation's political and socioeconomic environments, and the national governments interactive media use on their governmental websites. The data offer positive support for the relationships between a country's political and socioeconomic variables (i.e., transparency, economic freedom, and e-government) and interactive media use. It added evidence to current global public relations research on how environmental or contextual variables influence the practice of strategic communication worldwide.

This research further illustrated this dynamic association with specific political and socioeconomic indices and the online communication practices of national governments in every continent examining the differences by the regions of the world. Overall, Oceania and North America are the top-two regions for all three political and socioeconomic variables, followed by Europe, Latin America, and Asia. The result is respectively related to the levels of interactive public relations efforts of a nation. As shown in Table 4, the extent of the level of interactive features of government websites showed the highest level in North America, followed by Oceania, Europe, Latin America, Asia, Africa, and the Middle East.

This result may imply that countries in developed regions practice global public relations more strategically than those in developing regions. As data reveal there are strong differences between the regions in interactive feature uses (i.e., external link, partnership, language options, and data request). For example, more interactive functions are incorporated in the governmental websites from countries in North America, Oceania, Europe, and Asia. The results contribute to the documentation of global public relations practices needed for development theoretical knowledge that informs similar investigations, education, training, and professional practices.

From a global public relations perspective, the empowerment of public opinion is likely to continue making their marks on the evolution of public relations as a strategic organizational function that aims at building and cultivating relationships, facilitating understanding, collaboration, and community nationally and globally. In addition, this study asks further examinations of the impact of cultural differences on the global public relations practices, as well as democratic values and principles. Current global public relations are used to be described in a Westernized model. For example, participation, equality, and transparency based on pluralism and open-market systems are the essential elements of the philosophy for the development of Western democracy (Sriramesh, 2004; Larsson, 2006). In a democratic society, the enhanced two-way communication empowered public opinion. The three political/socioeconomic variables also indicate democratic values, which are conditions for effective interactive public relations practices. These techniques and efforts can be increased by open communication and public participation. Also, an open-market system is one of the critical factors that affect democracy values of a society, and economic freedom can be

considered as a significant factor to indicate the level of a nation's interactive public relations strategies.

Based on the empowered public opinion, global communication development, and advanced democratic philosophy (Sriramesh & Verčič, 2003), global public relations has been emphasized around the world, especially in developed or highly industrialized regions. Stakeholders and organizations in these regions have sought a positive and mutual beneficial relationship through interactive communication activities, which can be enhanced by interactive media use. However, the data in this study show that not many governments take advantage of interactive media fully. Even though a half of the governmental websites use static images, charts, and tables (50%), only about 30 percent of them also use enhanced visual functions such as streamed audios and videos (29%). It indicates that not just mere interactive features of the government websites but also context-based interactive content need to be analyzed to develop further discussions on cultural dimensions of global public relations practices (Valentini, 2007).

Limitations and Future Research

Despite significant relationships were found between transparency, economic freedom, and e-government, and interactive public relations efforts of a nation, this study's sample size and scope limit us to generalize the results to global public relations practices by national governments. Even though 118 official websites of national governments were analyzed in this research study, relatively small number of countries was selected in the seven regions of the world. Also, the English version of website was mainly analyzed for each national government. Other languages could be also included in future studies, which will add an additional level of complexity to global government public relations analysis.

Hence, future research should incorporate further empirical analysis with a large sample of nations around the world, both in developing and developed regions, and it should explore other potential political and socioeconomic indicators that may determine the sophistication of online public relations efforts. Also, future studies should examine multiple global public relations online platforms other than official government websites. Furthermore, dialogic interactive communication should be explored beyond the feature on the Web, and the contributions of dialogic communications to the relationship-building and cultivation effectiveness should be examined. For example, content

A Quantitative Analysis of Governments' Use of Interactive Media as a Global Public Relations Strategy – *Public Relations Journal* – Vol. 5, No. 4, 2011

analysis of international news coverage about the countries and public opinion survey will help to assess the government relationship building efforts and their effects. By doing so, it can add more meaningful understanding to the context of global public relations, especially by national governmental sectors, exploring whether governmental sectors can implement relationship-building and cultivation (stewardship) strategies for global public relations by increasing the use of interactive media, and what potential collaboration impacts government and non-governmental sectors would have for strategic global public relations practices.

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