

READERS AS GATEKEEPERS OF ONLINE NEWS

Brazil, China, and the United States

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ABSTRACT

The *popularity* of online news items is calculated by news sites as a function of reader behaviors, such as clicking on or reading articles, emailing them to others, commenting on or discussing them, and even linking to them in blogs. Online news sites often provide rank-ordered lists of popular articles that are updated throughout the day. Popularity reflects not only the interest of individuals, but it also can represent communication from an individual reader to other people. In the case of emailed articles, recipients may be friends, family or colleagues. When readers add comments below an article, they may reach anyone on the internet. When readers communicate with other readers, they extend the usual gatekeeping process but their selections may not reflect the news values of the journalists who put the sites together. This study compares the news values of readers in Brazil, China and the United States. .

Key-words: online news, gatekeeping process, readers.

INTRODUCTION

When readers look at news items offered by online newspapers or news portals, they are sometimes inspired to email, comment or blog about the news items. When many people do so, the news item rises to the top of a rank-ordered list that is published on the home page of the online news medium. The purpose of this study is to analyze the characteristics of such top-ranked news items from three countries: Brazil, China and the United States. We apply a new theoretical model of the news gatekeeping process that recognizes the importance of these actions by users of online news (Shoemaker & Vos, 2009).

As three of the world's most powerful countries, Brazil, China and the U.S. affect international news in two ways: They make news and they control the movement of news around the world. The ability to decide what people see and hear is crucial to their understanding of

relationships between countries and to tell friends from foes. The study of foreign and international news began in the mid-20th century, gaining prominence when UNESCO, an agent of the United Nations¹, took up the analysis of whether the *flow* of news around the world was imbalanced and what the consequences of this might be (UNESCO, 1980, 1985, 2008). A major concern was whether news flowed primarily from more powerful to less powerful countries, and one important consequence was called *cultural imperialism* (Bhagwati, 1977; Altschull, 1984; Galtung, 1971; Hester, 1971).

Bagdikian (1983) says that the power to control the flow of information is essential to controlling society. Hardt (1979) has written that controlling information allows a country to control society. Galtung (1971) has argued that communication is an essential part of imperialism, helping the values and cultures of core countries diffuse to the rest. Part of this is pragmatic, since most people have limited personal experience with many countries, whereas people who consume a lot of foreign news may mistakenly assume that they understand the world (Brewer, Graf & Wilnat, 2003; Wanta, Golan & Lee, 2004). When powerful countries control the flow of information, they can use news to reinforce their positions relative to other countries. This is generally understood as a hegemonic process, in which power begets power (Gramsci, Hoare & Nowell-Smith, 1971). Powerful countries need not use coercion to control others, because both they and weaker countries cooperate in the reinforcement of existing power relationships (Gitlin, 1980). Less powerful countries generally come to the attention of the world's news agencies only when they are the location of natural or political disasters (Cohen, Adoni & Bantz, 1990; Shoemaker & Cohen, 2006; Shoemaker, 1996). Some countries try to get the world's attention through sensationalistic news (Culbertson, 2007; Grabe, 2001).

Theory

We begin with a description of the gatekeeping process, followed by a discussion of the criteria that can define the newsworthiness of an event. Finally, we show how online news audiences have changed gatekeeping.

Gatekeeping

Gatekeeping Theory has traditionally analyzed why and how information about an event flows from sources and journalists to the production of news items (for example, television stories or newspaper

articles) and to their publication or transmission (Shoemaker, 1991). Over the past 60 years the theory—created to study social change by psychologist Kurt Lewin (1947, 1951)—has inspired many studies of news content (Gieber, 1956; McNelly, 1959; Bass, 1969; Halloran, Elliott & Murdock, 1970; Chibnall, 1977; Shoemaker, Seo, Johnson, & Wang, 2008), beginning with David Manning White's study of a newspaper wire service editor he called Mr. Gates (1950).

The early studies concentrated on in-or-out decisions: Information about an event was chosen or rejected by a series of news gatekeepers, the result of decisions by individuals or the application of rules. If information about an event was selected to enter the news media channel, then it was fashioned into a message that might or might not become an actual news item. Selection has been only one part of the gatekeeping process, however, with the shaping, repetition and timing of messages often resulting in a news item that differed in many ways from experiencing the original event. Entrance into news channels is controlled by gatekeepers, who determine which events gain access and pass numerous gates along the way. Forces in front of and behind gates either constrain or facilitate movement of information about an event through various sections in the channels. There are many forces that influence the news, as shown in the hierarchical model developed by Shoemaker and Reese (1996).

When news began moving to the internet platform in the late 1990s, news personnel quickly realized the interactive potential of online news. Readers can stream news video to their computers on demand and access decades-old newspaper archives. They can also email news items to family and friends, write comments that appear following a news item, send the article's link to social networking web sites, and even assign a certain number of stars to indicate which articles they like the most. The outcomes of these activities are known collectively as news item *popularity*, an assessment of a news item's worth according to the audience.

The outcomes of these popularity measures result in rank-ordered lists of headlines that express the most popular news items at a given time point. Such lists may change frequently or slowly, as the audiences' assessment of the news items changes in response to the characteristics of the popular items and the characteristics of subsequent news items. Each list begins with the top-ranked news headline and a link to the article, followed by other news headlines in descending order of popularity. Popularity lists appear in many online

media, including online editions of traditional news organizations, news media that appear only online, and in news portals that aggregate and rank news items from multiple media organizations. In this study we analyze the characteristics of the most popular news items, as determined by audiences in China, Brazil and the United States, and show that readers from these countries have different criteria in mind when their actions put news items on the most-popular list.

What Makes an Event Newsworthy?

Billions of events happen around the world every day. Most are of interest to only a few people and information about them stops short of becoming news. A few are of interest the world over, for example, the 2008 Olympic Games in Beijing. The news media cover these planned events before they happen, during and after. A flood of information is released by the event's sponsors, experts on various topics discuss and predict, and participants are interviewed. The event's sponsors *facilitate* the movement of information about the event to news workers, who write and create images for use at various time points. They create positive forces in front of news gates. If, during the event, there is a controversy or unexpected conflict, public relations experts may try to *constrain* the nature and amount of information that gets to the media, creating a negative force. Events such as the Olympics justify both the facilitation and constraint of information, because their purpose is to institutionalize conflict and to reward the victors. A good fight always makes a good story.

Galtung & Ruge's (1965) classic study and a recent revisit by Harcup and O'Neill (2001) have inspired many scholars to study the construct *newsworthiness* and its companion *news*, which are not necessarily the same (Shoemaker & Cohen, 2006). Nisbett and Ross (1980) took a cognitive approach to studying news attractiveness, asserting that people prefer vivid information to pallid. Studies have focussed on journalistic decision making within countries (Chang & Lee, 1992; Hachten, 1989; Westertåhl & Johansson, 1994; Wu, 2000), while others have involved comparisons of news systems in many countries (Heinderyckx, 1993; Malik, 1992, Wu, 2004).

Shoemaker and her colleagues (Shoemaker, Danielian, & Brendlinger, 1991; Shoemaker, Eichholz, Kim & Wrigley, 2001; Shoemaker, 1996; Shoemaker & Cohen 2006) have developed a bio-cultural theory of news that draws on both biological evolution (Newell, 1990; Malamute, Heavey & Linz, 1993; Buss, 1991) and cultural evolution (Barkow,

1989; Lumsden, 1989; Van Dijk, 1988) to explain why one event becomes news and another doesn't. At the heart of this approach are two constructs, the surveillance of the environment for events that have some sort of deviance and the assessment of events according to their significance to the social system.

Deviance. Shoemaker proposes that humans have, over millions of years, been rewarded with food, companionship, and procreation if they surveyed the environment for threats. If our ancestors could avoid or escape tigers, they survived another day and were more likely to pass their genetic heritage to subsequent generations. Humans who were eaten by tigers did not. In the world of the 21st century, "tigers" may come in the form of raging employers or customers, traffic accidents, inclement weather or invading armies, but they are threats nonetheless. Humans are innately "hard wired" (Shoemaker, 1996) to pay attention to conflict or controversy, the odd or unusual, and events that threaten their way of life. Surveillance is a successful adaptation (Darwin, 1860/1936, 1871/1936) to an ever-changing environment and is not only appropriate for "bad" news. It was and is equally useful to look out for good news, such as new advances in medicine, good food, and entertainment that can enhance quality of life.

Deviance is a construct studied in many disciplines, including anthropology, sociology and psychology, and Shoemaker uses it to explain why journalists look for events with these characteristics: *Statistical deviance* describes events that are odd and unusual, or that call attention to accomplishments or disasters that are perceived as being far above or below average occurrences. *Normative deviance* addresses the creation and violations of laws and rules (manifest or latent) that are intended to prevent crime and substance abuse, but it also includes the structure of political systems in which conflict and controversy become usual. *Social change deviance* includes anything that threatens a social system, however defined, from micro (neighborhood) or macro (nation). Threats come from within and out -- the threat of nuclear war and international terrorism compared with revolutions and abrupt changes in the workings of social institutions.

Social Significance. The newsworthiness of an event is also influenced by other characteristics, those that people need to know about to be effective actors in their social systems. Surveillance for deviance may be hard wired by biological evolution, but knowing what is important within a society is a function of cultural evolution. Biology may give people the ability to see the world, but culture determines

what the world looks like to them.

All social systems include aspects of social significance, within nations and among them. There are four primary dimensions: political, economic, cultural and public welfare. *Political significance* includes the executive, legislative, and judicial, plus relations among countries. *Economic significance* addresses all aspects of the monetary system within one country and between others, including imports and exports, valuation of currency, tariffs and taxes, as well as the health of businesses. Events with *cultural significance* address elements of religion, morals and values, the arts, and peoples' roles in society. The *public welfare* includes issues of health, safety, and quality of life.

Complexity. Shoemaker & Cohen (2006) discovered that nearly all of the 32,000 news items they studied included one or more elements of deviance and social significance. These seven dimensions interact and relate to a person's own social reality in varying complexity, the more complex events getting more attention. Events that draw on several of the seven dimensions of deviance and significance are generally rated as more newsworthy than an event where someone breaks the world record in eating watermelons, which has only statistical deviance, resulting in it being assessed as simple and of minimal newsworthiness. Newsworthiness is a cognitive construct, a decision made at the beginning of the gatekeeping process. Whereas everyone can survey the environment and judge the newsworthiness of an event, journalists' are paid to survey the world for the rest of us. Although events such as watermelon eating may have no social significance, the media have an insatiable appetite for weird and crazy events and people, statistical deviance being the most common of the seven criteria around the world (Shoemaker & Cohen, 2006).

Personal Relevance. A prevailing theme throughout the 80 focus groups that Shoemaker and Cohen (2006) conducted in 20 cities is that people are also interested in information that relates to them personally. Journalists can vary their writing style to enhance the odds that a reader will feel a personal connection to the story. Writing in the first- or second-person *voice* (I or you, we) signals that stories are soft news or have more human interest, whereas the third-person (he, she or them) is used in hard news articles where the author intends to be perceived as more remote and objective. In addition the use of *anecdotes* in the lead of a story also drawn people to a story, as does portraying the story in human rather than statistical terms. Shoemaker, Seo and Johnson (2008) found that stories that readers emailed to others have used writing conventions

that are intended to engage the reader.

A New Channel in the Gatekeeping Process

Audiences the world over are drawn to the internet, fast becoming the world's primary source for news and other information. Diffusion is not equal, however, across countries: The United States had an internet penetration of 74.2% in 2009, Brazil 34.0% penetration in 2008,, and China 26.9% in 2009. China has the fastest growing internet population, and in 2009 had 360 million internet users, compared to 228 million in the US, and 68 million in Brazil. Since 2000, internet penetration in China increased by 1,500%, 1,250.2% in Brazil, and 138.8% in the U.S. Worldwide, with a population of 6.7 billion, there are 1.7 billion internet users, making worldwide penetration 25.6%. This represents a growth of 380.3% since 2000 (*Internet World Stats: Usage and Population Statistics*, 2009).

As a consequence, the movement of news from paper and broadcast or cable platforms to satellites and computer platforms has defined the role of information in the 21st century. The interactive capacity of internet-based mass media gives the audience a far more significant role in the evaluation of news items presented to them than previously. As early models of the news process show (Wesley & MacLean 1957, p. 35), control over which events become news is held first by the participants who see events occur and other sources of information relevant to the events and second by the news media. The audience may respond to news items, but their power is weak as demonstrated by the tenuous feedback loop. Writing letters to the editor cannot be compared with the audience's ability to evaluate news items as they appear within internet-based media. Such instant information is of interest not only to the editorial staff, who for the first time actually know what the audience likes and dislikes, but also to marketing staff, who have hard data for use in selling advertising.

This power of the audience to evaluate the popularity of news items has inspired a new model which shows that the audience has more power in the gatekeeping process than was understood in theoretical models developed in the 20th century (Shoemaker, Seo, Johnson, & Wang, 2008; Shoemaker & Vos, 2009). We think of this phenomenon as *audience gatekeeping*, with audience members providing information to each other about their favored news items. The audience's new role in gatekeeping is represented in the revised gatekeeping model as a third channel through which information can flow (Figure 1), which shows how online news audiences can influence, through their comments about

news items, subsequent decisions by sources and journalists. This new model illustrates the more circular flow of information and a substantial increase in the power of the audience within the gatekeeping process.

Research Questions

This study is designed to compare the characteristics of the most popular news items in Brazil, China and the United States.

RQ 1. *What are the characteristics of news items on the most popular online news lists?* Studies by Shoemaker and her colleagues (Shoemaker, Seo, Johnson, & Wang, 2008) suggests that dimensions of deviance, social significance and personal relevance should be present in newsworthy events, which represent the interests of journalists first, because they control what gets past the various news gates and to the audience, and secondly of the audience, whose actions cause news items to rise up the list.

RQ 2. *Which characteristics appear within the news of the United States? Of Brazil? Of China?* Even if humans are innately drawn toward certain types of deviant events, the social significance of events is determined by political, economic, cultural and public welfare dimensions. Although these three countries are world powers and therefore share many attributes, we need to know more about the most popular online news within each country. Do readers use the same criteria to select news items that journalists use?

RQ 3. *Which criteria of the most popular online news articles can be used to discriminate among the three countries?* Cultural differences among the three countries may result in some criteria being important in one country and not in the others.

Methods

We analyzed the content of news articles that appear on the most popular lists of online news in Brazil, China, and the United States. Our purpose was to discover the extent to which the indicators of news used by journalists—deviance and social significance—interact with people's interest in things that affect them personally. First we look within each country and then look analyze which variables are important in discriminating among online news popularity in the three countries.

Data Collection

The *news* item is the unit of analysis, defined as news articles, blog posts, and other content appearing on the online news' most popular

lists. News sites were chosen from the three countries based on similar functionality of the ranked lists. The lists chosen ranked the top five or more news items that may appear at any moment. Each item on a list linked directly to the corresponding news item for analysis.

For Brazil, *O Globo's* most-commented list² ranks the five news items that have the highest number of reader comments posted by readers. For China, *News163's* most-commented list³ ranks the ten news items that have the highest number of reader comments posted by readers. For the United States, the *New York Times's* most-blogged list⁴ ranks the 15 news items that have the highest number of blog posts on the internet discussing the news item directly (i.e., the blog post contains a direct link to the news item on the *New York Times* web site). News items that are the most frequently linked to on blogs are automatically tracked by *Blogrunner.com*, which is owned by the New York Times Company. We chose to analyze only the top five items on each list in order to have comparability among the countries. This has the disadvantage, however, of constraining the variance of the lists, especially since items moved more slowly on and off of *Kommersant* than from the others.

A custom data collection script was developed to collect in each country the list of articles once a day at 4 a.m. local time for 42 days, from July 2, 2009, to August 11, 2009. We wanted to analyze about a month of popular news items—some possibly entering the list before the month and some remaining afterward. Items that were on each list before or after our first and last day of data collection were eliminated, along with duplicate news items appearing more than once on a given day. News items and daily ranking information were collected for a total of 427 news items: 164 from *O Globo*, 106 from *News163*, and 157 from the online edition of the *New York Times*.

Coding scheme. Three constructs were used to study news item characteristics. Deviance of news items was operationalized with three dimensions (statistical, social change, and normative). Social significance of news items was operationalized with four dimensions (political, economic, cultural, and public). Personal relevance was operationalized with seven dimensions (personal voice, lead focus, overall focus, anecdote, vividness, valence, and story type). Deviance and social significance dimensions were coded on a scale from 0 to 4, with 0 indicating no presence of the variable, and 1 (low) to 4 (high).

For the personal relevance dimensions, 1 was coded if the news item used first- or second-person references (personal voice), the lead focused on people related to the news event (lead focus), the story overall focused

on people related to the news event (overall focus), included a personal anecdote in the first, second, and last thirds of the news item (anecdote), or included vivid scene descriptions in the first, second, and last thirds of the news item (vividness). Both *anecdote* and *vividness* were summed indexes of the presence of the variable in the first, second, and last third of news items, each having a range of 0 to 3. Valence was coded as 1 for negative, 2 for neutral, and 3 for positive. Story type was coded as 1 for soft news, 2 for opinion, 3 for hard news, and 4 for other.

Intercoder reliability. Seven graduate students were trained as coders—two citizens of Brazil, two citizens of China, and three citizens of the United States. Coding for Brazil and the U.S. was completed by graduate students at Syracuse University in the U.S., and coding for China was completed by students at Peking University, Beijing. To assess inter-coder reliability, each pair or group of students from each country coded the same set of news items in their national language. Intercoder reliability was determined using Lin's concordance. For Brazil, 50 news items were randomly selected from the total of 56 news items, and reliability correlations ranged from .69 to .97 with a mean of .88. For China, 50 news items were randomly selected from the total of 106 news items, and reliability correlations ranged from .77 to 1.00 with a mean of .88. For the United States, 50 news items were randomly selected from the total of 157 news items, and reliability correlations ranged from .74 to 1.00 with a mean of .85.

Results

Table 1 summarizes the characteristics of popular news items on *O Globo*, *News163*, and *The New York Times*. Consistent with previous research of online news popularity (Shoemaker, Seo, Johnson, & Wang, 2008; Johnson & Yang, 2008), statistical deviance was the most common characteristic on the popularity lists ($M = 2.03$, $SD = .1.04$). Political ($M = 1.45$, $SD = 1.48$) and public significance ($M = 1.33$, $SD = 1.31$) were also common. News items were least likely to be written with a first- or second-person personal voice ($M = .09$, $SD = .27$), focused more on facts than people, in both the lead ($M = .38$, $SD = .47$) and overall ($M = .27$, $SD = .43$).

Readers of *News163* and *The New York Times* were far more likely than readers of *O Globo* to make events popular if they included social change deviance and public significance, and these articles were more often written using personal anecdotes and vivid scenes. *News163* readers were the least likely to highly rank events that included political

significance ($M = .72$, $SD = .93$).

Table 1 also shows univariate analysis of variance results testing whether news item means for predictor variables are equal among the three countries. Only one predictor variable, normative deviance, did not show significant differences across the country groups. Statistical significance may be a good discriminator among the three countries.

Table 2 shows that readers of *O Globo* rarely commented on news items that had positive valence, and less than a tenth of the most popular news items on *News163's* most popular list had positive valence. In contrast, nearly a third of the most popular news items from the *New York Times* had positive valence, but United States readers also blogged about more negative news items. A majority of most-popular news items from Brazil and China were of neutral valence. In addition, roughly three quarters of *O Globo's* and *News163's* most-popular news items were written as hard news, whereas *New York Times* readers blogged more about soft news items.

Discriminating among the countries

To help us understand the readers' online news environments in the three countries, multiple discriminant analysis procedures were used to find functions along which the three countries vary. Discriminant functions can assist in describing arrangements of scores on which groups—in our case, countries—differ (Warner, 2008). Discriminant functions are similar to factors in that they assist scholars in exploring sets of variables that are related to each other and to other variables (Vogt, 2005). According to Norusis (2008), discriminant analysis is “used to examine whether two or more mutually exclusive groups can be distinguished from each based on linear combinations of values of predictor variables and to determine which variables contribute to the separation” (p. 275). In our analysis, each news item belongs to one of three groups: Brazil, China, or the United States.

As shown in Tables 3 and 4, two canonical discriminant functions were computed using a stepwise procedure. Four variables were dropped, because previous variables in the equation subsumed the variance that might have been explained by soft news, personal voice, opinion, and lead focus. Chi-square tests in Table 3 show that the two functions are statistically significant, which indicates that each function is able to discriminate among the three countries. In addition, the high canonical correlation coefficients indicate strong relationships between the countries and each discriminant function. Therefore, the countries'

popularity lists are different, based on the variables analyzed.

Table 4 shows the largest absolute correlations which indicates how closely each variable and function are related in order to help us understand each discriminant function. We have labeled the first function *features*, because it includes five variables that are highly correlated to the function: statistical deviance, anecdote, hard news (negative), economic significance, and cultural significance. The features function accounts for 82% of the discriminating ability of all independent variables. The second function, *politics*, includes two discriminating variables: political significance and overall story focus on people. The politics function accounts for 18% of the variance.

In contrast, Table 4 also shows the standardized canonical discriminant function coefficients, which indicate the relative contribution each variable has on calculating the discriminant function score. The coefficients are partial rather than pooled, thus stating each variable's unique contribution to the discriminant function while controlling for all other independent variables (Garson, 2008). For the features function, statistical deviance, anecdote, and hard news have the greatest impact on discriminant function scores, but the hard news coefficient is negative, indicating that the more a news item is negative, the less likely readers are to comment on it. For politics, both political significance and overall story focus on people have the greatest impact on discriminant scores.

Finally, we use Scheffe homogeneous subsets to discover whether popular news items in one country describe events with the same or different scores on the ten variables. The results show that popular news items from the United States tend to be about more statistically deviant events than those in China and Brazil, whereas popular Brazilian news items contain less social change deviance. There was no difference between the countries in the amount of normative deviance. In addition, American news items were about more politically significant events than news items in Brazil and China; American and Chinese news items were about more economic significance, and Brazilian news items were about events with less public significance. As for the writing style of popular articles, the first and second person was used more in the U.S., but Brazilian articles used fewer personal anecdotes. American articles were more positive and tended to be soft, rather than hard, news.

Regarding the group centroids, as shown in Table 5 and Figure 2, the United States was considerably higher on the first function, features, than Brazil and China. This suggests that we can attribute group differences observed on the first function involving statistical deviance, economic

and cultural significance, anecdote, and *not* hard news to the United States. For the second function, politics, China had the lowest centroid, indicating that Chinese news items are less political and overall story focus is more on facts than Brazil and the United States.

Discussion

Although Tankard & Royal (2005) have said that the internet is not a complete source of information, there are many who would disagree. Young people especially have used news portals as windows on the world. With traditional news platforms dying in many countries, it is unknown whether news will become primarily internet based (Ahlers, 2006; Dimmick, Chen & Li, 2004). In addition, there is no indication as to whether the internet has increased the amount of foreign news available to the audience. The availability of information technologies does not necessarily overcome other influences on mass media content (Boyd-Barrett & Rantanen, 2004; Hamilton & Jenner, 2004; Shoemaker and Reese, 1996). Therefore having the capability to access huge amounts of foreign news on the internet does not mean that individuals will read it. The availability of user-defined filters could enable them to avoid most international news.

The internet does, however, have a unique feature: Internet portals can glean news items from other news organizations without considering proximity, politics, or cost. This has allowed internet portals to provide information that is not available to the audience through ordinary news media channels (Best, Chmielewski, & Krueger, 2005). Attempts by countries to constrain the flow of information, for example China (Knight, 1998) and Iran (during the 2009 presidential election), have been only partially successful. Information is like sand in an hourglass: Creating a small opening in the middle slows but does not stop the flow of information.

Our study looked at online news media in three countries and compared news items that readers had commented on or blogged, putting these news items on a rank-ordered list of popular news items. We applied theoretical constructs (deviance, social significance, personal relevance) to the characteristics of these popular news items to discover whether readers select news items using the same criteria that have been shown to predict the prominence of news in these and other countries (Shoemaker & Cohen, 2006).

One dimension was consistently observed in nearly all popular news items: Readers are interested in the odd and unusual, events that are unexpected or that startle. Readers are similar to journalists in that

preference—many news items have elements of the odd or unusual. Readers in China and the U.S. selected news items with elements of social change deviance—events that had the potential to change something about the status quo in the social system—more than Brazilian readers did. In the U.S., popular news items tended to be about events that were high in socially significance.

There was no clear pattern of differences or similarities among the three countries, causing us to question the reliability of these results. Shoemaker, Seo, Johnson and Wang (2008) found that only public significance and normative deviance were important correlates of being on the most-popular list—normative being negatively related. In their study, the use of first- and second-person pronouns and anecdotes were also important. Perhaps if more countries could be studied a more generalizable picture could be drawn of the relationship between our variables and being on the most-popular lists.

NOTES

- 1 UNESCO is the United Nations Educational Scientific and Cultural Organization.
- 2 <http://oglobo.globo.com>.
- 3 <http://news.163.com/rank>
- 4 <http://www.nytimes.com/gst/mostblogged.html>

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Table 1
 Characteristics of popular news items and univariate test statistics for Brazil, China, and the United States.

Variables	Brazil <i>O Globo</i> most-commented (n = 164)		China <i>News/6J</i> most-commented (n = 106)		United States <i>New York Times</i> most-blogged (n = 157)		F	p	η^2
	M	SD	M	SD	M	SD			
Statistical deviance*	1.41	.93	2.03	.75	2.68	.91	84.19	.000	.28
Social change deviance*	.71	1.07	1.44	.92	1.77	1.37	35.04	.000	.14
Normative deviance*	1.26	1.57	.99	1.02	1.28	1.40	1.67	.189	.01
Political significance*	1.13	1.25	.72	.93	2.29	1.59	52.92	.000	.20
Economic significance*	.23	.71	.85	1.08	1.25	1.52	31.84	.000	.13
Cultural significance*	.12	.56	.49	.82	.75	1.18	20.38	.000	.09
Public significance*	.49	.93	1.69	.83	1.97	1.45	76.26	.000	.27
Personal voice**	.00	.00	.05	.20	.20	.39	25.31	.000	.11
Lead focus**	.43	.48	.26	.44	.41	.48	3.63	.027	.02
Overall focus**	.36	.47	.14	.34	.23	.40	8.56	.000	.04
Anecdote***	.13	.35	.95	1.14	1.11	1.10	52.85	.000	.20
Vividness***	.25	.59	.69	.97	.86	1.04	20.09	.000	.09

* Responses were coded on a scale from 0 to 4.

** 1 = attribute present, 0 = not.

*** Additive index on a scale from 0 to 3 of attribute present (1 = present, 0 = not) in first, second, and last third of each news item.

Table 2
Percentages for valence and story type variables for Brazil, China, and the United States.

Variables	Brazil <i>O Globo</i> most-commented (n = 56)	China <i>News163</i> most-commented (n = 106)	United States <i>New York Times</i> most-blogged (n = 157)
	%	%	%
Valence			
Negative	65.3	40.6	58.6
Neutral	26.2	51.9	12.1
Positive	8.5	7.5	29.3
Story type			
Soft news	10.4	12.3	40.8
Opinion	.6	7.5	19.7
Hard news	86.0	74.5	39.5
Other	3.0	5.7	0.0

Table 3
Canonical discriminant functions' eigenvalues.

Discriminant function	Eigenvalue	% of variance	Canonical correlation	After function removed	Wilks's Λ	Chi-square	df	p
					0	.28	540.10	26 < .001
1	1.67	82.0	.79		1	.73	130.28	12 < .001
2	.37	18.0	.52					

Table 4

Standardized canonical discriminant function coefficients and discriminant function structure matrix showing pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions.

Variables	Standardized Canonical Discriminant Function Coefficients		Discriminant Function Structure Matrix	
	Function 1 Features	Function 2 Politics	Function 1 Features	Function 2 Politics
Statistical deviance*	.47	-.00	.49	-.03
Social change deviance*	.18	-.37	.31	.15
Normative deviance*	-.22	.04	.01	.15
Political significance*	.44	.71	.30	.51
Economic significance*	.35	-.02	.30	.10
Cultural significance*	.32	.03	.24	.07
Public significance*	.17	-.33	.44	-.33
Anecdote***	.44	-.32	.36	-.30
Vividness**	.26	-.07	.23	-.13
Negative valence**	-.02	.56	.02	.24
Positive valence**	.25	.47	.20	.21
Hard news**	-.42	-.26	-.40	-.17
Overall story focus**	-.19	.32	.09	.27

Note. Normative deviance, social change deviance, lead focus, overall focus, and vividness did not enter into the stepwise discriminant analysis.

* Responses were coded on a scale from 0 to 4.

** 1 = attribute present, 0 = not.

*** Additive index on a scale from 0 to 3 of attribute present (1 = present, 0 = not) in first, second, and last third of each news item.

Table 5

Group centroids.

Group	Function 1 Features	Function 2 Politics
Brazil	-1.428	.3670
China	-0.068	-1.048
United States	1.538	.3240

Figure 1

The three-channel gatekeeping process. Information about events flows to sources and the media and is transformed into news. The audience member then transmits news about the events to other people, comments on news stories, and blogs about the news, providing information about the popularity of news items to sources and the media. Based on Shoemaker, Seo, Johnson & Wang, 2008.

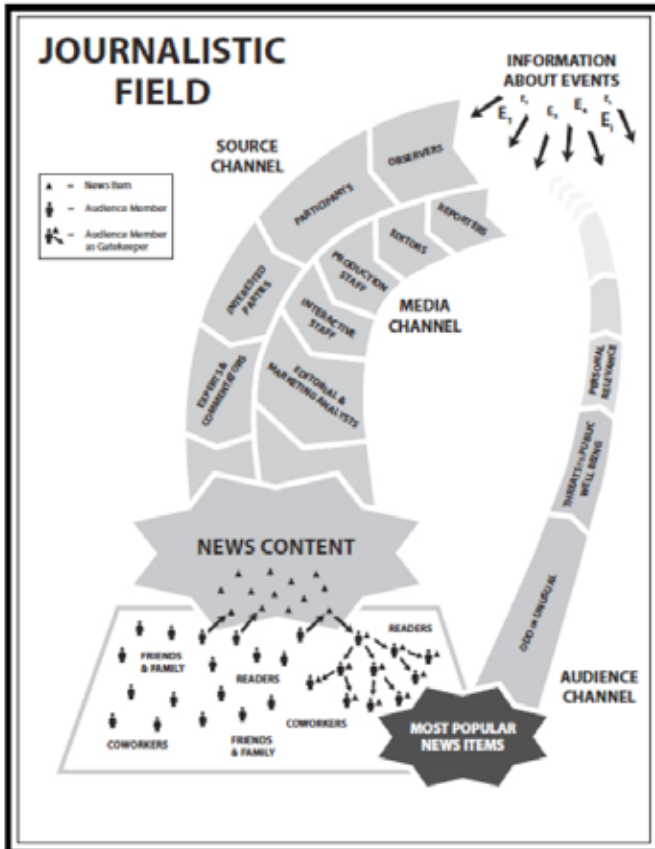


Figure 2

Group centroids for the three countries, based on 2 discriminant functions. Each circle is a news item.

