

Setting the media agenda: A study of the 2010 Sudanese presidential elections

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Abstract: This research investigates the influence of new media agendas on traditional news media according to the theoretical framework of intermedia agenda-setting during the 2010 Sudanese presidential elections. Upon applying content analysis, cross-lagged correlation analysis, and Rozelle-Campbell Baseline analysis, the paper provides evidence of intermedia agenda-setting in Sudanese media across a number of dependent variables. Sudanese newspapers influenced the agenda of Sudanese blogs whilst blogs have an increasing impact on the agenda of the newspapers. Our content analysis found that the agendas of socio-political blogs were strongly correlated with those of the newspapers. The findings also presented evidence of intermedia agenda-setting between socio-political blogs and citizen journalism.

Keywords: Citizen journalism; intermedia agenda-setting; media agenda; presidential elections; Sudan.

Abstrak: Kajian ini menganalisis media baharu dalam pembentukan agenda semasa pilihanraya Presiden di Sudan pada tahun 2010 dengan mengkaji pengaruh agenda media baharu ke atas agenda media berita tradisional. Kajian ini menggunakan analisis isi kandungan, analisis korelasi silang kajian, dan analisis Rozelle-Campbell Baseline. Hasil kajian menunjukkan bukti yang kukuh terhadap peranan pembentukan agenda antara media di Sudan dalam kalangan media yang mengkaji terhadap pelbagai angkuabah bergantung.

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Akhbar-akhbar di Sudan mempengaruhi agenda blognya. Sementara itu, blog juga turut memberikan dampak yang tinggi terhadap agenda di surat kabar. Analisis isi kandungan ini mendapati bahawa agenda isu sosio-politik di blog adalah berkait rapat secara kuat dengan agenda-agenda di surat kabar. Kajian ini juga mempersembahkan bukti-bukti dengan terdapatnya agenda intermedia dalam penetapan antara blog terhadap sosio-politik dengan kewartawanan rakyat.

Kata Kunci: kewartawanan rakyat; pembentukan agenda antara media; agenda media; pilihanraya Presiden; Sudan.

The Internet is widely recognised as one of the newest and most forward-looking forms of media. Craig (2005) pointed out that in the late 1990s and early 2000s, the Internet went from a specialised medium, used regularly by university personnel and computer experts, to a true mass medium. Garrison (1996) elaborated that, “the arrival of New Communication Technology such as Mobile Phones, the Internet, etc., has created opportunities and challenges for traditional media professions” (Garrison, 1996).

Blogs and other new media including social-networking sites such as Twitter and Facebook, and video-sharing sites, such as YouTube (otherwise known as Web 2.0) have become a cultural phenomenon in many parts of the world. Nowadays, blogs have a direct effect on the traditional media agenda. Blogs as defined by Blood (2002), “are Web pages with frequently composed entries arranged in reverse chronological order” (p. 19). Blogs have been materialising since the mid-1990s with more people referring to blogs for news. The number of blogs increases considerably during election periods.

Weblog or blogs are in some ways similar to personal diaries. Their aims and topics vary greatly to include commentary on commerce, people and ideas, news about individuals, parties, photos, poetry, mini-essays, project updates to diaries, hobbies, and even fiction. However, this research focuses on political news and social issues rather than individual news and feelings.

As is often the case with new media technologies in their early years, blogs have been the subject of a fast-moving, fluid body of research since first coming to prominence at the beginning of the 1990s. Blogs, through its genres, focus on particular areas such as entertainment, health

care, personal, and political blogs (Drezner & Farrell, 2004; Wallsten, 2007). This research explores the influence of socio-political blogs and the news agenda of newspapers based on the intermedia agenda-setting theory. Sample data from socio-political blogs' news stories posted on the Internet and from three Sudanese newspapers were analysed. The research could provide a new perspective into the relationship between news media such as socio-political blogs and mainstream media. It will also contribute to the existing agenda-setting literature by broadening the scope of research to include the field of news media and blogs.

Literature review

The past ten years has seen great expansion and progress of new media sources in Sudan. As has been the case in other countries, these online news providers compete with newspapers to deliver news to the public and setting the media's agenda. Sikanku pointed out that although "these online services provide news first, they may set the content and tone for what follows later in newspapers (Sikanku, 2010, p. 5).

Previous studies investigated the intermedia agenda-setting relationship in democratic countries where information flow is free. However, this research chooses intermedia agenda-setting in Sudanese media where media freedom is not completely free and the government has the power, at least partly, to control the media.

In addition, Sudan merits research due to the large number of Sudanese Internet users and bloggers. According to Internet World Stats (<http://www.internetworldstats.com>, 2012), there are over six million Internet users in Sudan representing 10% of the overall population. Sudan is placed as the fifth African nation for Internet use, after Nigeria, Egypt, Morocco, and South Africa. This indicates rapid development in Internet access. The Internet penetration rate in Sudan is 19.0%, slightly lower than the 21.1% average global Internet penetration rate.

Due to the Sudanese government's censorship of mass media, traditional Sudanese newspapers seldom include negative coverage of major national events such as the 2010 Sudanese presidential elections. Blogs are an exception. It is easy for Sudanese journalists to access online news sources as most credit the Sudan News Agency for their information rather than Sudanese newspapers.

The integration of blogs as a source of information during the 2010 Sudanese presidential elections proved to be hypothetically important to the study of the agenda-setting role of the media. This study investigates the occurrence of intermedia agenda-setting by examining two sets of new media (socio-political blogs and citizen journalism) along with the mainstream media agenda of major national newspapers. This research focuses on the relationship between new media and old media to ascertain if socio-political blogs and citizen journalism posts as a new media affected the mainstream media during the 2010 Sudanese presidential elections.

The intermedia agenda-setting effects of both new and mainstream media will be examined. By studying how existing newspapers respond to emerging new media, this study could provide new perspectives into the relationship between new media and national newspapers in Sudan. Consequently, this research will contribute to present agenda-setting literature by expanding the research settings to other geographical regions and to study the relationship between new and old media.

The influence of socio-political blogs has only recently been explored. One study examined how socio-political blogs contribute to the development of democracy (Lim, 2009). Consequently, by considering the agenda influence of blogs and newspapers, this research seeks to discover the role of media coverage in the Sudanese presidential contest.

Agenda-setting research has developed over the last four decades and scholars have recently raised the question of how certain media set the agenda for other media. Wallsten (2007) determined that, the blog agenda is strongly influenced by traditional news media sources and that blogs have become part of the routine news gathering process of traditional news media. Changes in standard journalistic research and attribution procedures will be discussed as both media formats often rely on each other as sources rather than on original reporting. Differences in the amount of news coverage, sources, and issues, will be discussed. Blogs and newspaper content will be analysed to determine the extent of the relationship between socio-political blogs and mainstream media within the concept of intermedia agenda-setting.

McCombs and Shaw officially introduced the theory of agenda-setting in 1972 and suggested media agenda-setting (issues discussed

in the media), public agenda-setting (issues discussed and personally relevant to members of the public), and policy agenda-setting studies (issues that policy makers consider important legislators) as its three major directions.

Intermedia agenda-setting (issue salience that can be transferred across media) is a part of media agenda-setting studies. Intermedia agenda-setting researches inspect who creates the agenda for the media and how such an agenda is set. Media agenda-setting researches are generally interested with media norms and routines, including news selection, emphasis, and diffusion, whereas intermedia agenda-setting studies examine the relationship between different media to determine how the media impacts on one another.

Agenda-setting studies have extended from examining hypotheses about the impact of the media on public agenda to examining who sets the agenda for the media. Roberts and McCombs (1994) stated that, "several theories address how news media emulate each other and adopt each other's stories. The most robust accounts of imitation processes in the media rely on the concept of intermedia agenda setting. Although the number of potential sources shaping the media's agenda is large, one important factor is known as "intermedia agenda-setting." It is commonly defined as the influence that the news agenda of different news organisations have on each other" (p. 250).

McCombs (1997) argued that, "studies that emulate the original vein of research established in the Chapel Hill study seek to investigate the question "Who sets the public agenda - and under what conditions?" (p. 42). A new line of scholarly inquiry emerged during 1980s, which sought to explore factors that shaped the existing agenda by the media (McCombs, 2004). The current research intends to respond to the question "who sets the agenda of the media?". McCombs (2004) elaborated that, "there have been a variety of influences on the media agenda which have been identified including key external sources such as the president, political campaigns and public relations. One particularly critical factor that influences the media agenda is the interactions and influence of the various mass media on each other. These interactions constitute a phenomenon called intermedia agenda-setting.

Essentially, intermedia agenda-setting refers to one agenda-setting of mass media influence on other media agenda (McCombs et al., 2000).

McCombs (2005) argued that, “a medium, because of its elite leadership status and the pervasive norms of professional journalism, may affect the agenda of other media. Scholars have examined, for example, how newspapers, magazines, and television networks affect each other’s agenda, the influence of political advertisements on newspapers’ agenda and on the news agenda of television networks” (Boyle, 2001; Golan, 2006; Lopez-Escobar, Llamas, McCombs, & Lennon, 1998; McCombs, 2005; Reese & Danielian, 1989).

Blogs in Sudan have become so popular that the Sudanese public is now reading blogs on a regular basis, although they do not compete with the traditional news media. The number of blog users, however, is increasing. The public does not recognise blogs as news sources but professional journalists are paying increasing attention to blogs because they can distinguish between the reliable and unreliable sources of new media.

This research is conducted in a developing country within Africa as few studies of intermedia agenda-setting have been carried out in this part of the world. Sudan is an excellent place to examine this issue because of its healthy newspaper and online environment as well as its political stability.

To date, there have been very few studies focusing on the coverage of presidential elections in Africa. The impetus of this research lies in its ability to compare the impact of coverage of presidential elections between several forms of news media. It is hoped that this research will contribute to a knowledge base that may eventually include all of Africa and the Arab world.

The current research is useful for media scholars, blog authors and interested journalists because it provides an insight into the relationship between socio-political blogs and the traditional media. This is also the first research that explicitly examines socio-political blogs and the media according to intermedia agenda-setting theory. Others have claimed that blogs have an agenda-setting function but have not examined this role in light of the developing community’s dependence upon traditional media sources.

Finally, a strong point of this research is to test the process of intermedia agenda-setting, which demonstrates that in an area that can be

considered to be outside the traditional agenda-setting territory such as Sudan, one medium influences the importance of issues within another medium. The fact that this research is undertaken in a developing Arab and African country increases its value because few studies on agenda-setting of any kind have been carried out in this part of the world. In addition, technologists often predict that new technologies such as online news services will have a healthy influence on older traditional media that are constrained by problems in delivery, paper shortages, and low levels of literacy (Sikanku, 2010).

The research on intermedia agenda-setting effects is another big challenge in the new media settings. Increasing the scope of agenda-setting detected among the traditional media to salience transfer among new media may reveal similar or possibly different trends in intermedia influence compared to that of the traditional media. Regardless of whether it is similar to or different from the effects of traditional media, such an attempt can broaden our understanding of the media system in the blog era.

One-sixth of the global population uses the Internet regularly. According to the World Telecommunications Union (WTU) 2012, this number has rocketed since people entered the new millennium. A recent survey (September 30, 2012) carried out by the Internet World Stats¹ shows 35.6% of the world's population uses the Internet.

Theoretical framework

While there is an increased focus on the effects of online activism and the Internet on politics, little has been done that addresses how socio-political blogs and newspapers fit into the agenda-setting perspective.

This research examines the intermedia agenda-setting effects of ten socio-political blogs, three mainstream media (*Alintibaha*, a private newspaper; *Akhirlahza*, a privately owned newspaper; and *Alwatan*, a privately owned newspaper), and three instances of citizen journalism, (*Sudanile.com*, *Sudaneseonline.com*, and *Albrakal.com*), all of which are privately owned online websites.

We apply content analysis to analyse socio-political blog posts and newspaper articles during the 2010 Sudanese presidential elections including their rank orders of themes. Lastly, to test for intermedia agenda-setting between new media and mainstream media, the cross-

lagged panel design is employed to measure the correlation of ranked themes. The cross-lagged approach with the Rozelle-Campbell Baseline has previously been used in intermedia agenda-setting research (Lopez-Escobar, McCombs & Lennon, 1998; Roberts & McCombs, 1994; Sweetser, Golan & Wanta, 2008).

The objectives of this paper are to examine the intermedia agenda-setting between socio-political blogs and mainstream media in order to test the hypothesis that socio-political blogs set the agenda of mainstream media and to explore the source of interaction between traditional news media and socio-political blogs during the 2010 presidential elections in Sudan. Based on the literature review, and in line with the above stated research objectives and understanding of blogs and mainstream media, we examine the role blogs and mainstream media play in intermedia agenda-setting. During the course of answering this question, we seek to determine whether the following hypotheses are supported:

H1: The issues mentioned (measured by frequency) by socio-political blogs in Time 1 will be mentioned by newspapers in Time 2.

H2: The issue salience of socio-political blogs in Time 1 shall show a significant correlation with the citizen journalism issue in Time 2.

H3: Issues emphasised by the blogs in presidential elections in Time 1 will correlate with the issue agenda of the citizen journalism posts in Time 2.

H4: Socio-political blog agendas in Time 1 will influence the agendas of major national newspapers in Time 2.

Method

The present research has utilised a longitudinal design which measures change over time by collecting data at two different points to assess whether blogs have an intermedia agenda-setting function similar to the traditional media. We adopt a longitudinal design because it is generally considered more appropriate for descriptive and explanatory research. Content analysis is also used as a reliable tool for data collection.

This paper tracks news reporting of traditional media and blog discussions about issues during the 2010 Sudanese presidential elections

to test the hypothesis that the blog agenda affects the mainstream media agenda. Using a computer-assisted, quantitative content analysis of randomly selected socio-political blogs over a two-month period from February 9 to April 11, 2010, the researchers examined how the Sudanese mainstream media reported the Sudanese presidential elections.

The 2010 Sudanese presidential elections were held on April 11, 2010. Consequently, the traditional news media and blog content were analysed in the two-month period leading up to the elections day - from February 9, 2010 to April 11, 2010. No sample was drawn within this time frame, as it was the overall purpose of this research to analyse the interaction of traditional news media and blogs on a continuous basis. Only a census of all traditional news media and blog content during the time frame allowed an examination of the relationship between blogs and mainstream media.

In order to access the newspaper articles, socio-political blogs posts and citizen journalism posts, the researchers manually collected all the issues of the three media for the defined time frame. The guided news search function of LexisNexis Academic was not utilised. Articles were retrieved by a search for the keywords *presidential elections*, or *name of any presidential candidates* in the full-text mode. These searches resulted in a total of 1,501 newspaper articles, socio-political blog posts, and citizen journalism posts. The number was reduced by eliminating articles and posts that showed up several times in the search results. A few articles were also included in the search results that did not include any of the search terms. They were eliminated as well.

Accordingly, 14 articles of *Alintibaha*, 11 from *Al-Watan*, 4 from *sudaneseonline.com*, 2 from *Sudanile.com*, and 1 post from *Albrakal.com* had to be eliminated. In addition, the search results of socio-political blogs were reduced by 30 as online posts from blogs showed up in the search results and had to be eliminated based on the described sampling criteria. No articles from *Akhirlahza* had to be eliminated.

The eliminations resulted in a final article and post count of 1,439, including 550 newspaper articles, 501 blogs posts, and 388 citizen journalism posts. The 550 newspaper articles were divided as follows: *Akhirlahza* (n=191), *Al-Intibahah* (n=164), and *Alwatan* (n=150). The 388 citizen journalism posts were divided as follows: *Sudanile.com* (n=173), *Sudaneseonline.com* (n=162), and *Albrakal.com* (n=53).

Findings

According to the data, the most frequent issues represented across the newspapers and socio-political blogs were (in alphabetical order) the campaign, the constitutional review, conflicts in Darfur, morality, human rights/race relations and issues related to personal character such as leadership and morality. There was a significant overlap in issues covered most prominently in the two media. While both media gave significant attention to issues of campaign, constitutional review, and the conflicts in Darfur, the newspapers prominently featured content dedicated to the leadership while socio-political blogs prominently featured foreign policy issues.

As Table 1 indicates, the greatest frequent category issue was campaign in Time 1, but leadership, constitutional review, and human rights/race relations were among the top issue in Time 1. Issues of conflicts in Darfur, CPA and morality appeared least in newspaper reports in Time 1. Similarly, the same issues were prominent in Time 2. Newspaper reporting of morality continued to increase, and in the last few days of the elections morality had become the major common issue. The amount of news stories concerning human rights/race relations and constitutional review decreased in Time 2, while news reporting on the campaign increased in Time 2.

In contrast, Table 1 shows the largest number of postings (18.2%) by socio-political blogs articulated opinions about campaign in Time 1. Constitutional review was the second highly posted topic on socio-political blogs in Time 1. Leadership and human rights/race relations had the smallest number of stories posted in Time 1. The amount of constitutional review over time reduced from 17.6% in Time 1 to 13.6% in Time 2. Stories about the campaign greatly increased from 18.2% (29 stories) in Time 1 to 28.5% (84 stories) in Time 2. The proportion of foreign policy posts increased from 11.3% in Time 1 to 14.6% in Time 2. In addition, stories about the conflicts in Darfur declined throughout the elections, with few stories reported in the last days of the elections. The coverage for Darfur stories in Time 2 was only 4.8% yet in Time 1 the proportion of this issue was 13.2%.

Table 1: The socio-political blogs, newspaper and citizen journalism issue agenda

Issues	Socio-political blogs		Newspapers		Citizen journalism	
	Time 1 (n= 159)	Time 2 (n=295)	Time 1 (n=198)	Time 2 (n=254)	Time 1 (n=125)	Time 2 (n= 227)
Campaign	18.2	28.5	27.3	30.7	12.0	34.4
Youth & students	01.3	0.00	02.5	00.8	00.0	00.9
Human rights/race	06.9	03.7	08.1	04.7	08.0	02.2
Conflicts in Darfur	13.2	04.8	04.5	01.2	14.4	03.5
Constitutional review	17.6	13.6	12.6	06.7	22.4	15.4
CPA	05.7	07.5	03.5	06.3	05.6	03.9
Creating employment	00.0	0.00	00.0	00.8	00.0	00.0
Crime/violence	03.8	04.8	01.0	03.1	01.6	04.9
Economic recovery	04.4	05.8	03.0	03.5	04.0	10.1
Farmers & agriculture	00.0	00.3	00.0	01.6	00.0	00.0
Government spending	00.0	00.3	00.0	00.0	00.0	00.0
Health care	00.0	0.00	00.5	00.4	00.0	01.3
Infrastructure	00.0	00.3	00.0	00.4	00.0	00.0
Oil	00.6	00.3	00.0	00.4	00.0	00.4
Religious tolerance	02.5	0.00	02.0	03.1	01.6	00.9
Tackling poverty	00.0	00.3	00.0	00.0	00.0	00.0
Tribalism/ethnicity	00.6	00.3	00.5	00.0	04.0	01.8
Welfare	00.0	0.00	00.0	00.8	00.0	00.0
Women's issues	00.6	00.7	04.0	00.0	00.8	00.9
Avoid disputes	01.9	00.7	00.0	00.0	00.8	00.0
Foreign policy	11.3	14.6	02.0	04.3	08.8	06.2
Compassion	01.3	03.4	01.5	00.4	00.0	00.4
Experience/ability	00.6	0.00	01.0	02.4	08.8	00.0
Knowledgeable	00.6	01.4	04.5	02.0	02.4	00.9
Leadership	08.8	07.5	13.6	14.6	09.6	09.3
Morality	00.0	01.4	07.6	11.8	03.2	02.6

Notice: All figures are percentages. For newspapers, n= number of stories; for Socio-political blogs, n= number of stories on the posts, for Citizen Journalism, n= number of stories on the posts.

H1: It was predicted that the issues mentioned by socio-political blogs in Time 1 will be mentioned by newspapers in Time 2 during the early weeks of the 2010 Sudanese presidential elections. This hypothesis was not supported (Table 1). No issue was found in the socio-political blogs which strongly suggests an intermedia agenda-setting function of the issues covered during elections.

Table 2: Pearson correlations comparing issue agendas

	Newspapers T2	Socio-political blogs T2	Citizen journalism T2
Socio-political blogs T1	.168	.428	.721**
Newspapers T1	.611	.687**	.700**
Citizen journalism T1	.500	.547*	.185

* $p \leq .05$ ** $p \leq .01$

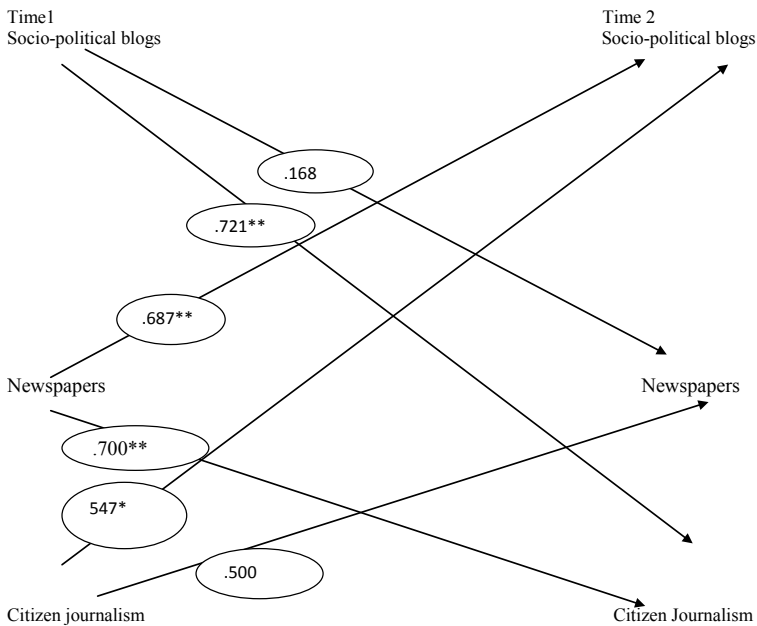


Figure 1: Cross-lagged correlations: Agendas issue of blogs, newspapers and citizen journalism.

Notice: * $p \leq .05$. ** $p \leq .01$.

Table 2 shows the findings of the correlations contrasting agenda issues throughout the presidential election period. The major correlation occupied the association of the socio-political blogs in Time 1 with citizen Journalism posts in Time 2 ($r = .721, p \leq .01$). The newspaper coverage in Time 1 was also correlated with socio-political blogs in Time 2 ($r = .687, p \leq .05$).

The socio-political blogs and newspapers generated significant correlations. The Pearson correlation of the socio-political blogs in Time 1 and newspapers in Time 2 at 0.168 was not found to be statistically significant. Thus, there would not be a direct relationship between the blogs and newspapers, but the socio-political blogs in Time 1 correlated with the citizen journalism in Time 2 (0.721) while the newspaper agendas in Time 1 and citizen journalism in Time 2 (0.700) correlated significantly. Although the socio-political blogs may possibly have been reporting messages in response to newspaper reporting, yet, the newspapers' coverage was not linked to the issues discussed in socio-political blogs.

H2 received support for a correlation between the issues salience of socio-political blogs in Time 1 with issues mentioned by citizen journalism posts in Time 2. The findings of correlations of the cross-lagged are exposed (Table 2 and Figure 1). In Figure 1, four of the six cross-lagged correlations were significant. Moreover, correlations of socio-political blogs to correlations of citizen journalism were bigger than the socio-political blogs to mainstream media correlations, indicating that the socio-political blogs were responding to mainstream media reporting rather than effecting newspaper reporting.

Considering the elections coverage by Sudanese citizen journalism, the majority of coverage consisted of two issue categories (Table 3). Stories on the constitutional review dominated the number one position on Time 1 ranking. Again, stories about the campaign dominated the number one position on Time 2 ranking. Constitutional review reporting far outpaced all other issues creating up 18 of 52 stories or 34.6% of Time 1. At Time 2, campaign issues made up 39.8% of elections reporting.

Table 3: Prominence of issues in citizen journalism

Time 1	Stories (%)	Rank	Time 2 (%)	Stories (%)	Rank
Constitutional review	18 (34.6)	1	Campaign	33 (39.8)	1
Conflicts in Darfur	10 (19.2)	2	Economic recovery	11 (13.3)	2
Campaign	4 (07.7)	3	Constitutional review	10 (12.1)	3
Foreign policy	4 (07.7)	3	Leadership	7 (08.4)	4
Human rights/ race	4 (07.7)	3	Foreign policy	7 (08.4)	4
Leadership	3 (05.8)	6	Conflicts in Darfur	5 (06.0)	6
CPA	3 (05.8)	6	Crime/violence	4 (04.8)	7
Economic recovery	3 (05.8)	6	CPA	3 (03.6)	8
Crime/violence	2 (03.9)	9	Human rights/race	1 (01.2)	9
Morality	1 (01.9)	10	Religious tolerance	1 (01.2)	9
			compassion	1 (01.2)	9

N=26. Unit of observations= 335 citizen journalisms stories. Full mentions, Time 1= 52 and Time 2= 83. Time 1 = Feb.9 – Mar. 7, 2010. Time 2 = Mar. 15 – Apr. 11, 2010.

Table 4 shows the Pearson coefficients for the citizen journalism agenda by paragraphs. The table reflects a strong relationship between the three citizen journalism across the two time periods with coefficients ranging from .55 to .76. These relationships were anchored by both constitutional review and campaign coverage.

The findings of the correlations compared agendas (Table 4) crossways the entire presidential elections. The biggest correlation entailed the comparison of the socio-political blogs with citizen journalism ($r = .753, P \leq .01$). This indicates that Hypothesis 2b of this research is supported. The three citizen journalism were strongly correlated ($r = .709, P \leq .01$). Citizen journalism was also correlated with the newspapers.

What is most important for this research, however, is the impact of socio-political blogs on citizen journalism for the 2010 presidential elections in Sudan. This sustains the second hypothesis of this paper.

H3 predicted that issues emphasised by the blogs in presidential elections in Time 1 will correlate with the issue agenda of the citizen journalism posts in Time 2, and received strong support.

Table 4: Pearson coefficients of 2010 presidential campaign coverage by citizen journalism paragraphs

	Sudanlie T2	Sudanese online T2	Albrakal T2
Sudanile T1	.76	.76	.75
Sudaneseonline T1	.64	.64	.64
Albrakal T1	.56	.56	.55

Correlations comparing issue agendas (r_s)

Socio-political blogs T1	.729**	.880**	.650*
Socio-political blogs T2	.721*	.753*	.655*

Note: all coefficients in the above table are significant at $p \leq .001$.

** $p \leq .05$ ** $p \leq .01$*

Duplicating Lopez-Escobar’s et al. (1998) method of cross-lagged, which allowed fundamental assumption to be made from the data, we found that cross-lagged correlation supposes that if X effects Y more than Y effects X, then PX_1Y_2 should be higher than PX_2Y_1 . Lopez-Escobar et al. (1998) stated that, “the inverse that if Y effects X more than X effects Y, then PX_2Y_1 should be higher than PX_1Y_2 is also supposed. The cross-lagged correlation analysis offers two benefits for examining hypothesis, “first, two competing hypotheses can be examined simultaneously”. We can assess not only the hypothesised relationship between the independent variable at Time 1 and the dependent variable at Time 2, but also the strength of the hypothesised relationship vis-a-vis a hypothesis asserting exactly the opposite. Second, both these hypotheses can be assessed based on the Rozelle-Campbell Baseline, which is the level of correlation expected on the basis of the autocorrelations and synchronous correlations alone (Lopez-Escobar et al., 1998, p. 233). There are six correlations in the two variable cross-lagged situations: the synchronous correlations PX_1Y_1 and PX_2Y_2 , the autocorrelations PX_1X_2 and PY_1Y_2 , and the cross-lagged correlations PX_1Y_2 and PX_2Y_1 (Campbell & Kenny, 1999).

The results of the cross-lagged comparisons for examining the intermedia influence between the newspaper issue agenda and the socio-political blogs issue agenda appear in Figure 2. The results show that there is an influence of the newspaper issue agenda on the issue agendas of the socio-political blogs.

Figure 2 shows that the correlation of 0.048 between the newspaper issue agenda at Time 1 and the socio-political blog issue agenda at Time 2 was moderate, while the correlation of -0.030 between the socio-political blog issue agenda at Time 1 and the newspaper issue agenda at Time 2 was negative. Although the correlation was not strong, there was evidence of a modest influence of the newspaper issue agenda on the socio-political blog issue agenda because the correlation exceeded the Rozelle-Campbell Baseline of 0.046. Additionally, there was no reciprocity.

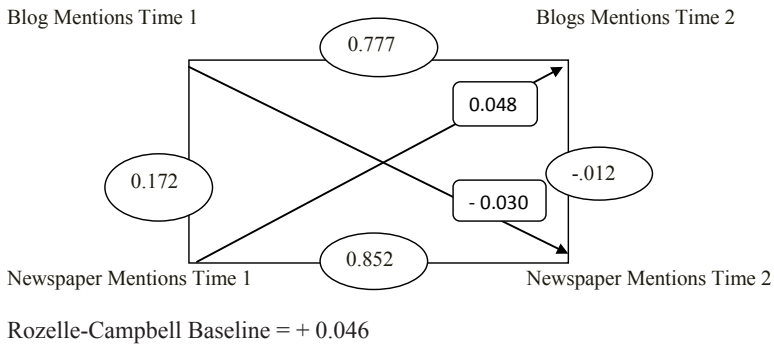


Figure 2: Cross-lagged comparison (Pearson coefficients)²
 Blog mentions versus newspaper mentions

As seen in Figure 2, there was a high correlation between the issue agendas for blog mentions Time 1 and blog mentions Time 2. The same can be said for the issue agendas within the newspaper mentions at the two time periods. However, comparing the two media, the cross-legged issue agenda for newspaper mentions at Time 1 on blog mentions at Time 2 is significant (0.048) since it was above the baseline. However, the cross-lagged between blog mentions Time 1 and newspaper mentions Time 2 (-0.030) is not significant. In terms of newspaper topics, they had a substantial influence on blogs across time. The topics mentioned by blogs and newspapers at different time periods were very high indicating that they maintained a very high consistency in terms of the type of news articles they covered.

Figure 3 shows a modest Pearson correlation of ($r = 0.230$) among newspaper paragraph agenda at Time 1 and socio-political blog space issue at Time 2. There was no reciprocal impact as the impact of socio-political blog issue at Time 1 on the newspaper agenda at Time 2 of ($r = 0.045$) exceeded the Campbell Baseline of (0.0532).

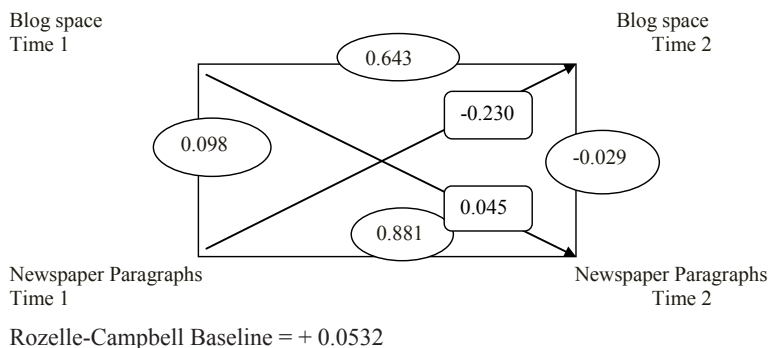


Figure 3: Cross-lagged comparisons (Pearson coefficients) Blog spaces versus newspaper paragraphs

Although Figure 4 shows there was a high correlation of ($r = 0.276$) among prominence of newspaper agenda at Time 1 and socio-political blogs mentions agenda at Time 2, there is proof that newspaper coverage affected socio-political blogs. Correlation between socio-political blogs' agenda at Time 1 and newspaper agenda at Time 2 was 0.194. The two correlations went beyond the Rozelle-Campbell Baseline of (0.134).

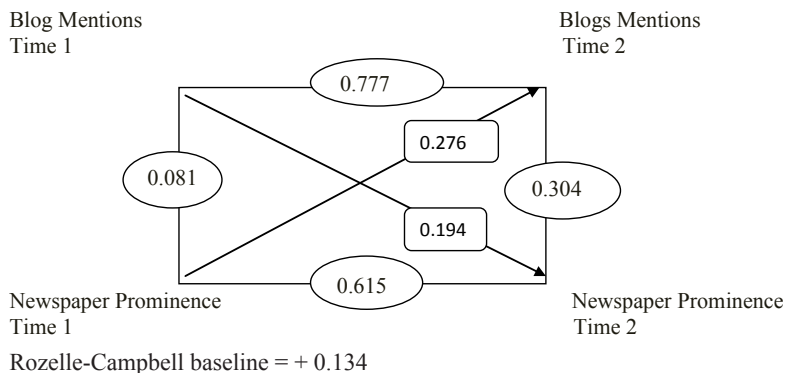


Figure 4: Cross-lagged comparisons (Pearson coefficients) Blog mentions versus newspaper prominence

However, although Figure 5 illustrates that the correlation of ($r = 0.124$) among the socio-political blog agenda at Time 1 and the newspaper prominence at Time 2 was not established, there was no mutual impact. The effect of newspapers' prominence at Time 1 on socio-political blogs at Time 2 of ($r = 0.305$) was significant. The correlation went beyond the Rozelle-Campbell Baseline of 0.122.

Rozelle-Campbell Baseline = + 0.122

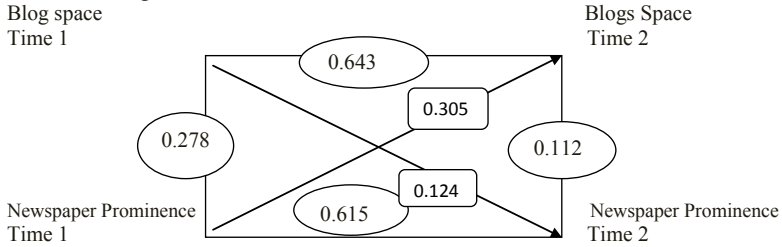


Figure 5: Cross-lagged comparisons (Pearson coefficients) blog spaces versus newspaper prominence

H4 required examining if proof should be initiated for the opinion that socio-political blogs will affect the agendas of major newspapers more often than major newspapers influence the agendas for blogs during the 2010 presidential campaign. The cross-lagged analyses did not support this hypothesis.

None of the blog coefficients were statistically significant. In contrast, nearly all of the citizen journalism variables were statistically and substantively significant. Newspapers at Time 1 were not statistically significant.

For H4 which posited that socio-political blogs agendas in Time 1 will influence the agendas of major newspaper in Time 2 greater than major newspapers influence the agenda for blogs, the cross-lagged analysis presented no support for the blog coverage influence hypotheses. None of the coefficients representing the relationship of interest were statistically significant. This level of analysis did not support the power of blogs setting the agenda.

Discussion

These findings have proven that there is an influential relationship between the three sampled media. As the number of media outlets grow, it appears unlikely that one media form could have as clear, direct and powerful impact on another in this environment.

McCombs (2005) stated that blogs may have an intermedia agenda-setting role. However, this was not the case in this research. Newspapers were still major information sources for Sudanese society. But socio-political blogs provided a number of topics for readers, including

journalists. Journalists selected certain topics and made their comments or provided further explanations in their coverage. Therefore, blogs will continue to set the agenda for newspapers in the future even though the Internet is widely used nowadays.

With the emergence of the Internet in the 1990s, scholars began questioning the viability of the agenda-setting theory and started exploring ways in which the theory would have to adapt to the online age (Takeshita, 2002). The discussion is borne out of concern over whether or not mass media is a concept of the past in the new, increasingly fragmented media environment. Certainly, the original model of a public dependent on a select few news media outlets for their understanding of the world proffered by McCombs and Shaw (1972) in the Chapel Hill study no longer applies. The Internet has given us blogs and other media, such as micro-blogs, that have complicated the media landscape and impacted news gathering processes. McCombs (2005) argued that in the interactive Internet age where these potential influences on the media agenda are not well understood, intermedia agenda-setting is a vein of research that scholars will be very interested in for the foreseeable future. At present, our understanding of intermedia agenda-setting in the Internet age remains limited.

This research also demonstrates that Sudan acquires a vital media platform. It illustrates that while mainstream media had a substantial intermedia impact on other newspapers, the other media under consideration, such as the socio-political blogs and Sudanese citizen journalism, had the possibility of creating their own stories. The findings of this research show that blog agendas and newspaper agendas were not remarkably different.

Conclusion

This research questions the relevance of news media in new media, namely, blogs. This is a major problem for the news media industries. Clearly, the news media source must continue to adapt to a media landscape that has shifted in order to maintain its relevance in moving forward. The fate of the news media impacts the public immensely as it is an historic institution that is tightly bound to democracy today.

Political scientists have long considered national conditions and other contextual factors in analysing presidential elections (Holbrook,

2002). However, the 2010 elections in Sudan focused heavily on the Comprehensive Peace Agreement (CPA). In 2010, blogs identified a variety of issues as important considerations without focusing only on the CPA.

Although there was lack of evidence showing agenda-setting from news media to blogs and citizen journalism, it must be said that the national newspapers are not irrelevant on new media as mainstream media are increasing their new media presence and gaining a stronger foothold in these emergent communities. To the extent that the mainstream media adapts to new media, they may be able to increase their influence on these communities. News media is changing and scholars, practitioners, and the public alike would be wise to not rule out the new sources of media. To this end, it is hoped that this research has contributed to a greater understanding of the relationship between news media and blogs - even if by showing that we still have so much to learn in these times of change.

Endnotes

1. Internet World Stats is an International website that features up to date world Internet Usage, Population Statistics and Internet Market Research Data, <http://www.internetworldstats.com/>.
2. Each line represents a Pearson coefficient. The lines in bold indicate the coefficient of primary interest and the other arrowed line represents the area of interest if the reverse hypothesis was true. The Rozelle-Campbell statistic was computed for each model to determine the statistical significance of the individual Pearson coefficient.

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