Is the Egyptian Press Ready for Democracy?

Evaluating Newspaper Coverage as an Indicator of Democratization

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Abstract

If the Egyptian transition to democracy is to succeed, social institutions like the press will have to embrace their democratic responsibilities. In this paper, I look for signs of change in the post-Revolution press as an indicator of the progress of Egyptian democratization. During interviews conducted over the summer of 2011 with journalists and media experts in Egypt, I found that the press was still constrained by low journalistic standards and continued government interference. But the newspapers' content tells a different story. Digitally combing through five years of coverage from the independent newspaper *Al-Masry Al-Youm*'s online archives (comprising more than a quarter of a million articles), this study determined that coverage in the six months after the Revolution heavily converged on political topics that were formerly off limits. This newspaper replaced trivial reporting on culture and entertainment with coverage of the protests, political players like the Muslim Brotherhood, and the branches of government. These stories put pressure on the emerging government and set a precedent for political coverage under the new democratic regime. The evolution of *Al-Masry Al-Youm*'s coverage suggests that the newspaper is beginning to play a democratizing role, indicating that Egypt is progressing along the path to democracy.[1]

Introduction

On the evening of January 25, 2011, a tense atmosphere gripped the newsroom of *Al-Masry Al-Youm*[2] (The Egyptian Today)—Egypt's largest independently affiliated daily. That day, its reporters had witnessed the largest political protests in recent memory. Tens of thousands of people had converged on Tahrir Square in the heart of Cairo, among other locations across Egypt, in a show of strength that mirrored Tunisian protests that had ousted President Ben Ali eleven days earlier. For those journalists who wished to expand and challenge the public discourse, the events on the street seemed to be the culmination of everything they had worked towards: a public challenging of the regime. Many of them were at that moment in Tahrir Square reporting or protesting, or both. But the newspaper administration knew the risks of reporting on

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[2] A note on the Arabic: all translations are my own except if otherwise noted. I transliterate names of people and institutions without self-established transliterations according to common practice.

the protests. They knew that if they reported objectively on the demonstrations of that afternoon, the President, State Security Minister, or Information Minister would be calling the next day. And even if the caller did not revoke the newspaper's publishing license on the spot, he would explain that the newspaper's future was in question. It was not hard to predict that government-run newspapers would downplay the size of the protests—certainly placing coverage below the fold—and objective reporting of any sort would be unlikely.

Across the front page of the January 26 edition of *Al-Masry Al-Youm* ran a one-word headline: "Warning" (see Appendix A)—the newspaper had accepted the risk. The next day the Minister of Information telephoned the paper. "You deal with the president, you're on your own," he said, according to Vice-CEO Sherif Abdel Wadoud (2011). "It's over, we're done," Wadoud remembered thinking, as he knew the regime had the authority to revoke the paper's license and effectively shut it down. But the regime never recovered, and *Al-Masry Al-Youm* continued to report on the demonstrations. The newspaper confirmed that in the 18 days before the ouster of President Hosni Mubarak, it could act as a democratic press.

The political ramifications of the uprising that began that January day are increasingly apparent today and the discourse on post-Revolution democratization in Egypt often assumes further democratization. But making sense of Egyptian society in the aftermath of the Revolution[3] is a challenge even nearly two years later. Are institutions like the press fulfilling their roles in a democratic society by acting on the precedent set by *Al-Masry Al-Youm* and other newspapers during the Revolution? While democratic ideals of political participation infused the initial protests and the presidential elections, the extent of democratization in Egyptian society after the Revolution remains unclear.

In this study, I hope to contribute one perspective on the impact of the Revolution in Egypt. I argue that the role of the press in a society is strongly indicative of the structure of that society; thus, developments in the Egyptian press after the Revolution can reveal significant changes in Egyptian society. A more democratic role for the press, evident in *Al-Masry Al-Youm*'s coverage in the initial weeks, suggests a vibrant public sphere that is essential to democracy. However, the press may now have reverted back to its handicapped role under the old regime as did the revolutionary media of Iran after 1979 (Beeman 1984), suggesting that democratization has not necessarily taken hold throughout Egyptian society. As many hoped, did democratic ideals entrench themselves in society? Or, at the other extreme, did democratization end with the ouster of the former president and the rise of the interim military regime?

This paper uses a quantitative textual analysis of content from *Al-Masry Al-Youm* to investigate developments in press coverage in the six months after the Revolution. Digitally combing

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[3] In this study, I refer to the ouster of former President Mubarak as the "Revolution" because that is how it is referenced in Egyptian popular discourse and in many of my interviews. But I use the term only as a proper noun because a full revolution, involving a transformation of the political system, occurs over a protracted period of time.

through five years of coverage, I asked whether the press, although constrained by a variety of factors including government interference, participated in and contributed to a growing public sphere. In the analysis, I found that press coverage heavily focused on political issues after the Revolution, suggesting that the press was more likely to engage with the political sphere. Furthermore, key topics that had been formerly off limits or restricted from coverage, including the presidency and the Muslim Brotherhood, were heavily covered in the post-Revolution environment. Despite continued social and political impediments, the press has shifted the discourse and contributed to the public sphere. This conclusion does not imply a causal relationship—the press may be channeling a renewed public interest in the political sphere instilled by the Revolution, and a growing public sphere does not inexorably cause democratization. But the depth of coverage of political activity does indicate an enlarged public sphere that is more compatible with potentially ongoing democratization.

Research Methodology

This study analyzed the content of *Al-Masry Al-Youm* exclusively for both practical and analytical reasons. There are numerous Egyptian news organizations and an analysis of all of their content would have been highly impractical given the quantity of material. Furthermore, the research question asks how print media contributed to a more robust public sphere across Egyptian society. Thus, news outlets outside the mainstream with a smaller readership are far less likely to have had a major impact on this sphere. *Al-Masry Al-Youm* is among the highest circulating newspapers and saw its readership spike in the months after the Revolution, making it an appropriate sample of widely read press during that period.

The independent coverage in *Al-Masry Al-Youm* is also more flexible than in the other two categories of print news in Egypt—government and political party newspapers—and therefore more valuable as an indicator of change in the period immediately after the Revolution. The rise of an independent press, which began in the late 1990s and took shape in the middle of the following decade, has provided the groundwork for non-biased and professional journalism. Party newspapers still contain obvious party biases, and government newspapers retain allegiances to the ruling government that likely continue to taint their coverage. During the Revolution, independent newspapers like *Al-Masry Al-Youm* and *Al-Shorouk* (The Dawn) gained widespread respect for their accurate coverage of the protests that contradicted the blatantly false reports of the government newspapers.

The study's analysis examines content from the online archive of *Al-Masry Al-Youm*[4] between the dates of November 24, 2005 and July 25, 2011. The start date represents the first point at which *Al-Masry Al-Youm* archives were available online, one year after the paper was founded.[5] I

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[4] Archive available at: http://www.almasry-alyoum.com/backissues.aspx?l=ar

[5] For this study, the missing year dating back to the newspaper's founding was not deemed crucial: the newspaper was not yet a mainstream source of information in Egypt at that time, and the available data

selected July 25 as the end date because it includes a six-month period after January 25, the start of the Revolution. This six-month period also coincided with the time I spent conducting interviews with journalists, media professionals and media analysts in Egypt. As a result, the qualitative data from these retrospective interviews can be understood to cover the same six-month period as the quantitative data. For an explanation on how I gathered the Arabic newspaper text and prepared it for the LDA code, see Appendix B.

My quantitative analysis used statistical methods in R programming to form what is called a "topic model." A basic topic model extracts recurring themes or "topics" in a text by identifying the frequency of related words (Blei 2011). The approach used here, refined in the late 1990s, revolutionized data retrieval from large quantities of text by eliminating the need for a search input that could alter or bias the results (Hofmann 1999). The model was particularly useful for my own study because it vastly expanded the scope of my research on the diversity of coverage, allowing me to identify and track all dominant points of coverage.

I used a topic model called Latent Dirichlet Allocation (LDA), first developed in 2003 (Blei et al. 2003). LDA assumes that there are multiple topics to be found within a corpus of text and allows the user to request an output with a specific number of topics. This topic model is an increasingly common tool for analyzing vast quantities of text on the web, including both mainstream news media and social media. Zhao et al. (2011) used LDA to compare news content on the social media site Twitter and on the New York Times website. Doumit and Minai (2011) used LDA to identify underlying biases in news organizations. The specific LDA code that I used, which draws from a preexisting R library, was designed by Brandon Stewart, a graduate student at Harvard University's Department of Government. Blei et al. (2003) provide an accessible explanation of topic models and LDA.

Before running LDA, the code required an input of the number of topics that I wanted the model to identify. Too few topics would produce a list of broad categories (politics, culture, and sports, for example) that would be of little use in this study. Undoubtedly newspapers in Egypt consistently wrote about topics like politics. Rather, I was interested in specific areas of politics that may have been deemed taboo or subject to censorship. However, too many topics would be both burdensome and overly specific. For example, the model may have classified a topic on worker protests in 2006 and worker protests in 2008 as separate topics, ignoring a key shared thematic point of coverage—worker protests.

After some experimentation on both ends of the spectrum, I concluded that a topic model with 50 topics would produce the most appropriate number of results. This model ended up extracting a wide range of topics without excessive thematic repetition and included both relevant and irrelevant topics. I determined an appropriate label for each topic by analyzing the topic's 30

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from before the revolution, spanning five years, is more than sufficient for the purposes of identifying trends in the paper's coverage.

most common words in a process that inserts an inevitable degree of subjectivity into the analysis. A sample of the top ten most common words in the most relevant topics is available in the Appendix C.

In order to assess the topic variety, I broke down the 50 topics into 7 different categories: Crime, Culture, Economics, Foreign Affairs, Miscellaneous (combinations of words that demonstrate no clear or substantive theme), Politics (the most common), and Sports (see Appendix D for distribution). Topics in each category relate to a specific subject, but often vary in their focus. Within the Sports category, for example, the words in one topic suggest a focus on the national soccer league. This is evident in the frequency of "Ahly" and "Zamalek," the names of the two most popular soccer clubs in Cairo, and in the common use of the word "club." The words in another sports-related topic suggest coverage of the World Cup: top words included "match," "World Cup," "Brazil," and "Africa," home of the 2009 Confederations Cup and the 2010 World Cup. It should be noted that these topics are not time specific. Although coverage of the World Cup topic presumably spiked leading up to the 2010 championship, the topic likely also arose in 2006 coverage of the World Cup in Germany and perhaps in miscellaneous coverage of FIFA, the international soccer organization.

Evann Smith, a graduate student in Harvard's Department of Government, composed R code allowing me to track the frequency with which topics appeared over time. In my research, I performed two primary analyses of the data to better understand the Egyptian Revolution's impact on press coverage. First, I ran an analysis of variety in coverage, including before and after the Revolution. Second, I analyzed the coverage of salient individual topics over time, including before and after the Revolution. The latter analysis demonstrates to what extent the press covered key issues that may have been avoided prior to the revolution and suggests the current role of the media in the post-Revolution political discourse. The data from interviewees generally indicated that continued restrictions on press freedom and limitations on the quality of the press prevent a more vibrant media environment. However, this study's quantitative analysis demonstrates that coverage of politically perilous or socially taboo issues nonetheless increased after the Revolution.

Variety in Topic Coverage

In the six months after the Revolution, the variety in coverage of the 50 topics dropped significantly, suggesting a concentration of coverage on political developments beginning on the first day of the protests. Coding identified the percentage topic makeup of each article and then compiled articles according to their publication date (newspaper edition). If an article had more than 33 percent of terms referring to a certain topic, then that topic was considered "covered" in that article's issue. A relevant article had to give the topic sufficient play, for an article that gave only passing mention of a topic was not considered to be about that topic. Figure 1 provides a visual comparison of this variety in coverage in the six months prior to the Revolution and in the

six months after the Revolution. The graph shows the number of topics considered "covered" in a given issue. The horizontal line indicates the mean number of topics and provides a helpful visualization of the difference over time.

Figure 1
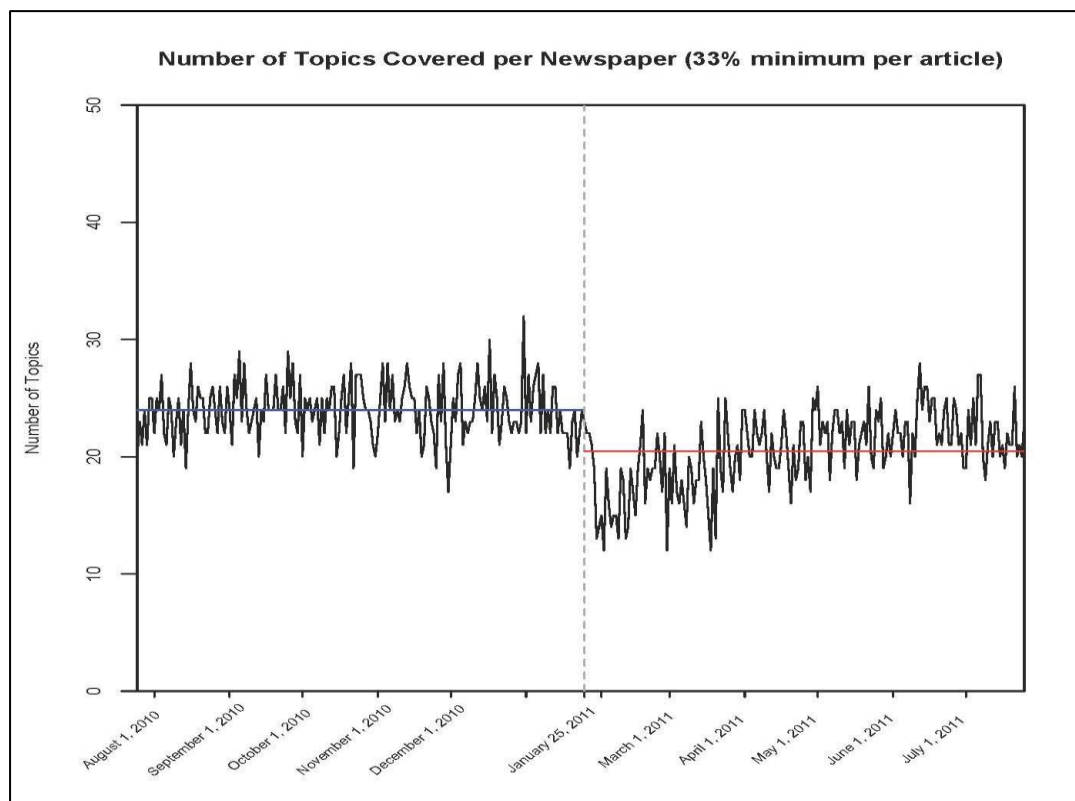
This analysis demonstrates a marked drop in coverage variety (statistically significant, p-value < 2.2e-16). While an average of 23.98 topics were covered per issue in the six months leading up to the Revolution, an average of 20.47 topics per issue were covered afterwards. Coverage variety in the initial weeks of the demonstrations plummeted, with some issues covering fewer than 15 topics. Coverage at this time was nearly exclusively focused on the protests and the ensuing political turmoil. Working on the international desk of the Egyptian daily *Al-Akhbar*, journalist Yasmine Hani (2011) recalled turning all of her attention to the demonstrations. Previously, she used to scan international newswires for stories of general interest to the Egyptian reader. After the Revolution broke out, she was tasked with compiling articles on international responses to the protests in Egypt. "During the 18 days of the revolution all the newspaper was focusing on Egypt," Hani said.

Coverage at *Al-Masry Al-Youm* also did not return to the diversity of the pre-Revolution period, suggesting a continued focus on the political sphere. Figure 2 shows a comparison of topic variety between the period before the Revolution and after the Revolution, excluding the 18-day period before Mubarak relinquished power (in which the paper covered on average 20.87 topics

per issue). A two sample T-test demonstrates that the difference in mean is again statistically significant (p = 2.067e^-12).

Figure 2
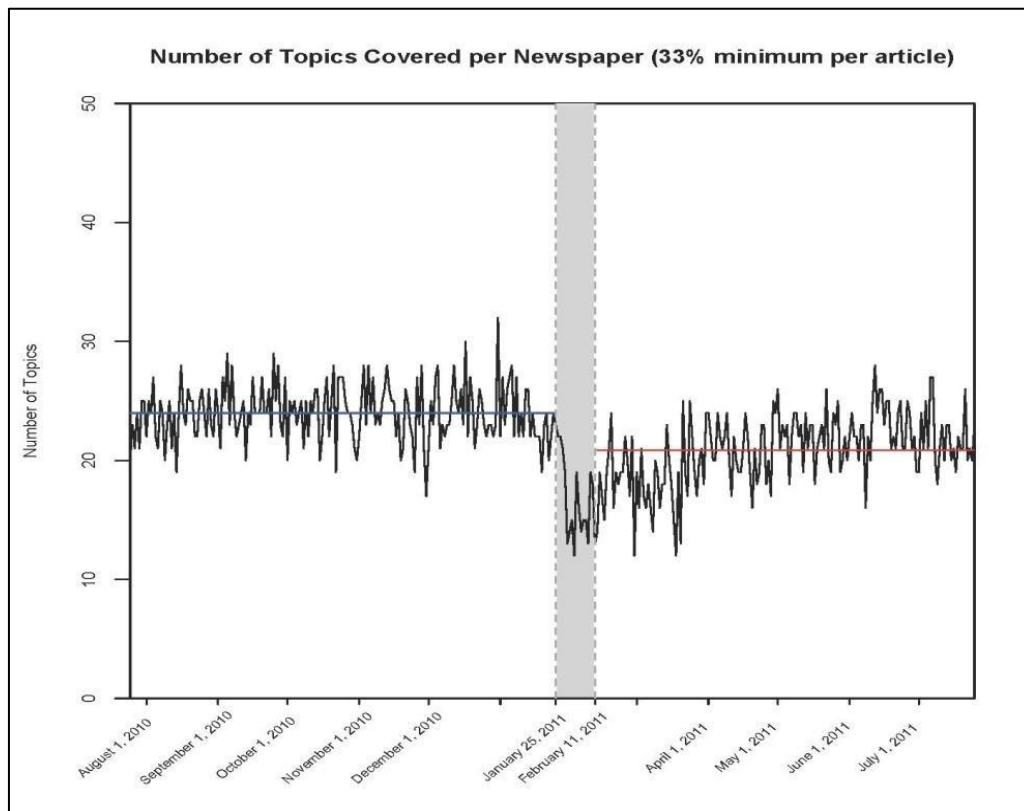
In order to ensure that the 33 percent threshold was not too demanding, I performed a robustness check by reducing the percentage. The model's design allowed for topics to be sprinkled through articles in the post-Revolution period without achieving the classification threshold in individual articles. However, the robustness check identified a topic as covered if it composed more than only 10 percent of an article. The results also demonstrated a statistically significant decrease in the post-Revolution period excluding the 18 days, confirming that threshold was not driving results (p-value = 1.197e^-11, see graph in Appendix E).

A look at the entire corpus dating back to 2005 (with a 33 percent threshold) indicates that the six months prior to the Revolution (including the 2010 parliamentary elections) did not have exceptionally high variety in coverage. Figure 3 compares the mean number of topics per issue before and after the Revolution in content, spanning from November 25, 2005 to September 30, 2011. The analysis shows a statistically significant drop in number of topics (p-value = 5.24e^-16). Again, a robustness check at 10 percent was still statistically significant (p-value = 2.626e^-08, see graph in Appendix F).

Figure 3

Number of Topics Covered per Newspaper (33% minimum per article)
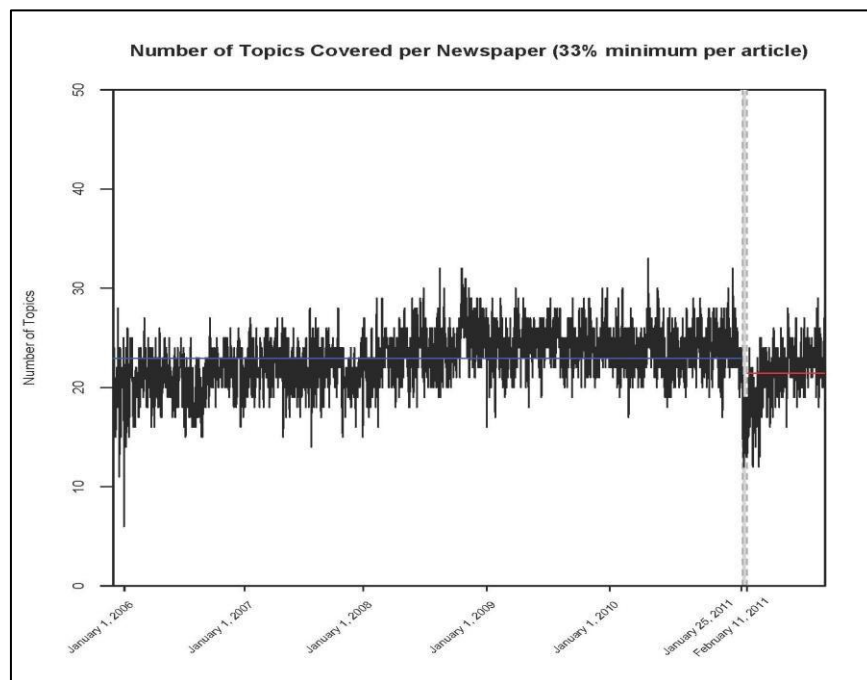
This drop in variety indicates that the press provided less comprehensive coverage of society after the Revolution. The drop could also be understood to mean that the press did not rise to fill the void in public discourse created by the fall of the regime. But I contend that this is a false conclusion, for after further analysis of individual topics, the press's contribution to the public sphere in fact increased. More coverage of topics does not inherently indicate a more free or active press because only a small number of such topics are vital to the public sphere. Sports, entertainment, and foreign affairs are not generally components of the public sphere. Rather, the press contributes to the foundations of a vibrant public sphere mainly by covering political activity.

In fact, an analysis of specific topics over time indicates that *Al-Masry Al-Youm* concentrated coverage on politics while reducing its reporting on other topics. Figure 4 demonstrates that coverage of the topic labeled *household and family*, which consists of words like "children," "house," and "family," dropped. Likewise, entertainment coverage nearly halved as a percentage of other topics (Figure 5). These topics appear to be elastic areas of coverage that were replaced by other topics that arose during that time. Interestingly, some non-political topics did not demonstrate this same elasticity. The newspaper continued to cover the national soccer league, for example, at an almost equal rate except for the period immediately after the Revolution when many games were canceled. Figure 6 shows coverage over time of one of the soccer topics, labeled *sports*.
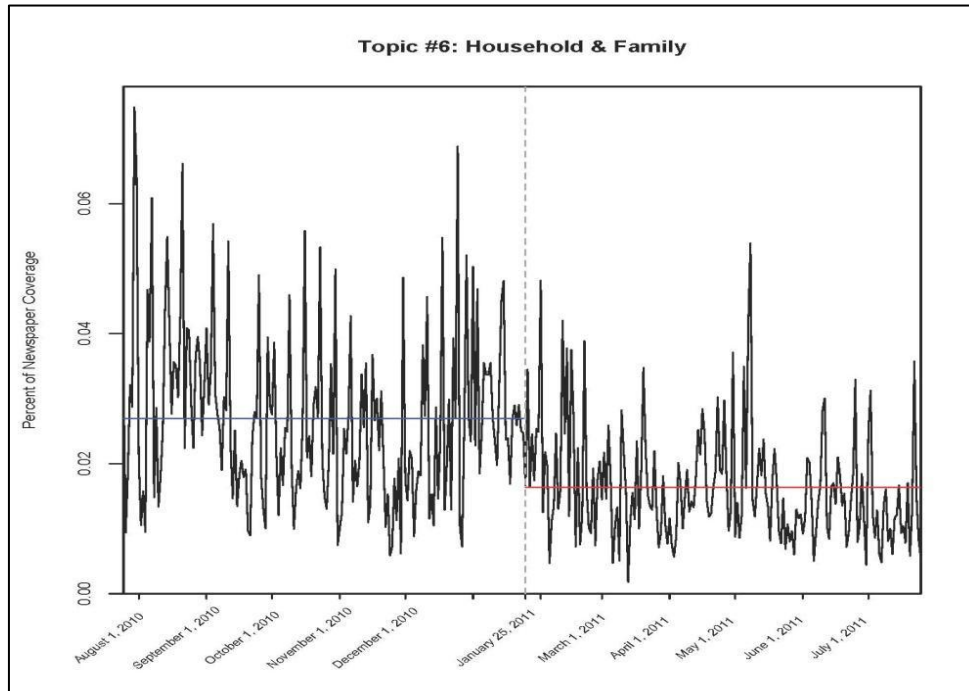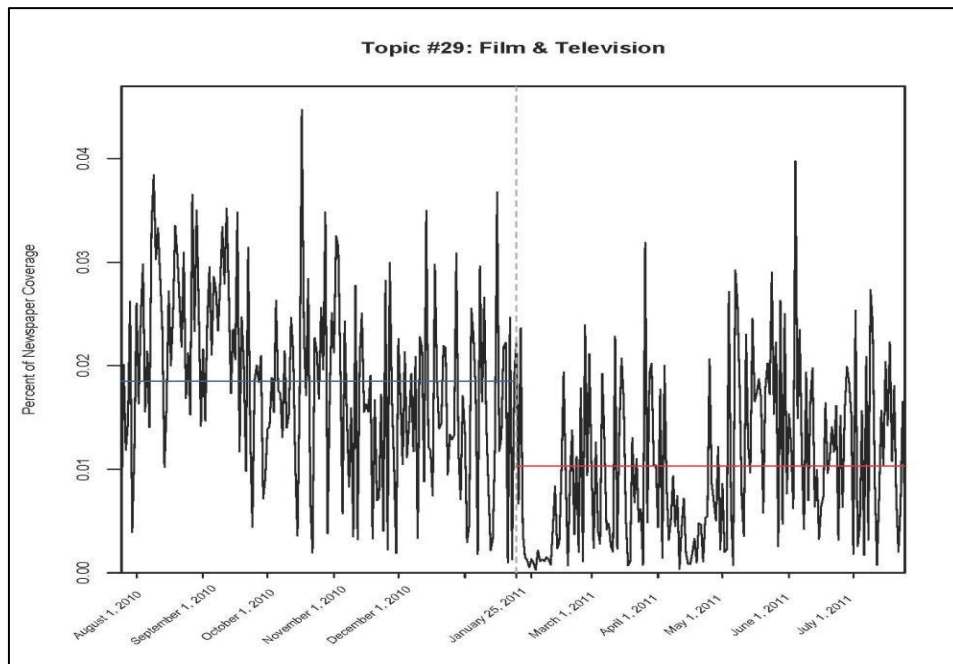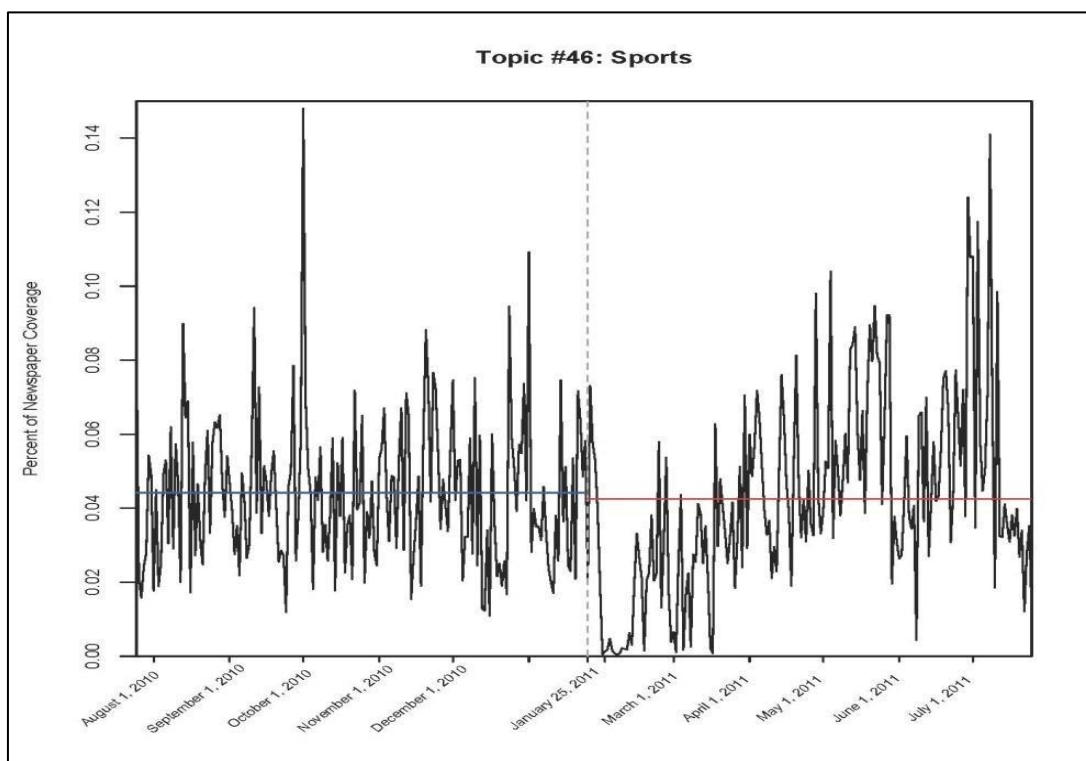
Figure 4

Figure 5

Figure 6

Notably, coverage of the topic containing basic government terms did not demonstrate a significant increase in coverage after the Revolution (Figure 7). This topic, labeled *government*, contains non-incendiary, common government terms like "assembly," "minister," and "president." The concentration in coverage thus does not simply reflect a rise in writing about the "surface" of the political sphere. Indeed, the press has long reported on Egyptian political cycles (though the topic coverage increased during the period of the 2010 elections) and general day-to-day activity (i.e. new legislation or a presidential trip abroad). According to the analysis in the following section, certain key political topics increased as percentages of coverage during this period. This concentration of coverage was in fact reflective of an enhanced focus on specific institutions in the political sphere. Greater coverage of these specific topics, including the various aspects of governance, suggests a level of engagement with politics that the press did not demonstrate before the Revolution. In the next section, I look at the ways by which the media cast light on specific political topics, eventually helping to construct a more robust public sphere.

Figure 7

Topic #33: Government
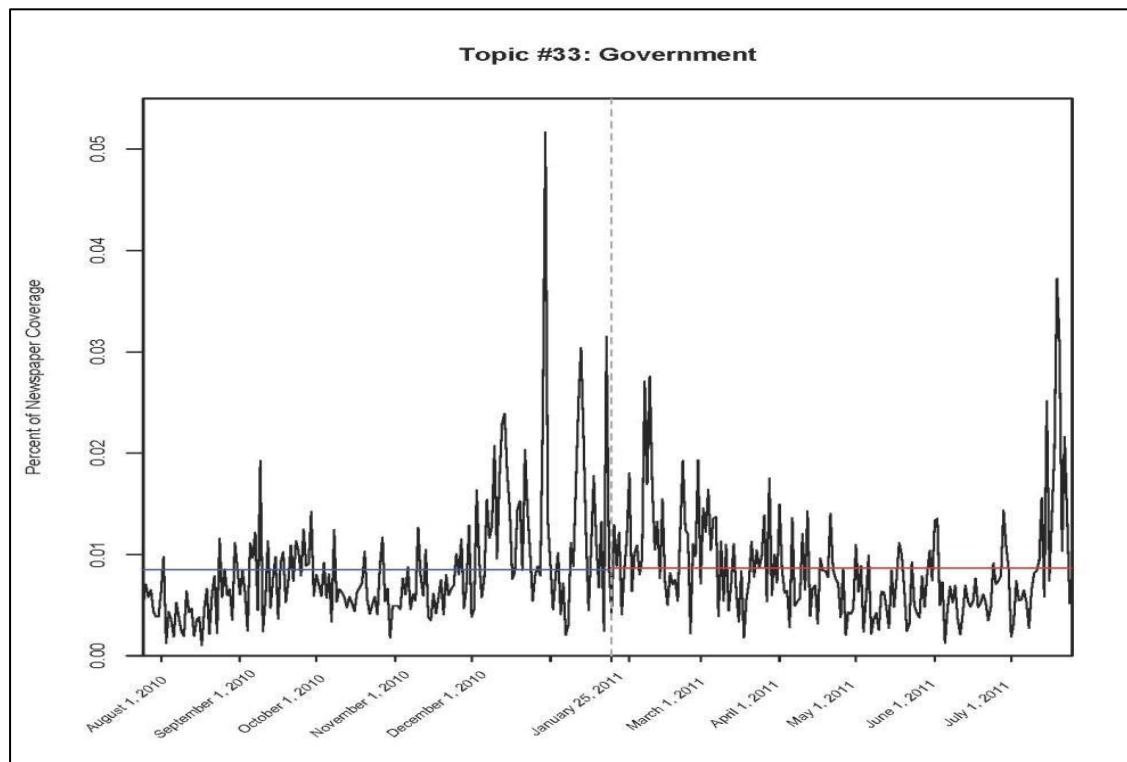
Individual Topic Analysis

While the journalist contributes to the public sphere with a wide range of coverage (as even economic coverage will have implications for government action), direct coverage of politics represents the most tangible contribution to this sphere. Media alone, including the instant connections of the Internet, cannot establish an effective public sphere without first engaging with politics and politicians. In his analysis of Arab media, Marc Lynch argued that transnational satellite television served as a public sphere for Arab populations. But he notably claimed, "only when al-Jazeera refocused the satellites away from entertainment and toward politics … did it become a public sphere" (Lynch 2006, 33). By the same token, Egyptian media has an extensive tradition of producing tabloid-style newspapers, talk shows, novels, television series, and films popular across the Arab world. But this cultural discourse has not been translated into a public sphere because it has not incorporated politics.

In selecting topics from the 50 possibilities within the topic model, I was therefore primarily interested in those topics related to national politics. From the unsupervised topic model, I identified six of the 50 topics that I believed were political and therefore most relevant to this analysis. Each topic had political associations: the topic labeled *Muslim Brotherhood*; branches of government (including topics labeled *presidency*, *judiciary*, and *parliament*), and public

protests (including topics labeled *worker protest, national protest*, and *revolution*). For a sample of the top ten terms for each of these topics, see Appendix C. In the following subsections, I elaborate on each topic and its coverage over time.

Protest Movements

Two separate but similar topics on this subject were discovered in the topic modeling. The first, labeled the *worker protest* topic, is self-explanatory in subject and likely draws from coverage of Egypt's high-profile protests in 2008 as well as coverage of rather common labor disputes and strikes. This topic includes words such as "workers," "sit-in," "strike," "syndicate," and "protests." The second protest topic is the *national protest* topic, which appeared to focus on the political protests of the January 25 Revolution. This topic includes words like "demonstrations," "revolution," "security," and "Tahrir Square," the core of the nationwide demonstrations.

In the six months after the Revolution, coverage of both topics significantly increased (See Figure 8 and Figure 9). Compared to the previous six months, there were about five times as many articles focusing on these two topics, a jump from 212 to 1156 articles. *National protest* quite unsurprisingly spiked in the last week of January 2011, at one point consisting of nearly half of the topics covered in one newspaper edition. On average, the topic composed about 6.6 percent of total coverage in the six months after the Revolution, compared with 1.1 percent in the six months prior (statistically significant, p-value $< 2.2e^{\wedge}-16$).[6] Coverage of these national protests far surpassed that of past coverage of worker protests, reflecting the exceptional nature of the national protests. In contrast, coverage of *worker protest* reached its highest point in the six months preceding the Revolution in October at around 5 percent of coverage—and at no point did a million Egyptians take to the streets in support of workers' rights (in fact, worker demonstrations were often limited to tens or hundreds). This comparison is significant because it suggests the extent to which coverage of the Revolution represented a wholly unprecedented foray into reporting on political opposition on the street.

Though increasing by a lesser degree, the rise in coverage of *worker protests* is also noteworthy. While occurrences of worker protests and strikes may have increased along with the Revolutionary protests, continued coverage of the workers demonstrates a remarkable awareness on the part of the newspaper. Despite the nationalist fervor of the Revolution, the newspaper retained a scope of coverage of sufficient depth to differentiate between general demonstrations and worker protests.

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[6] The latter figure was driven up substantially by nationwide demonstrations in support of the Egyptian Christian community in the wake of the January 1, 2011 bombing of a church in Alexandria.
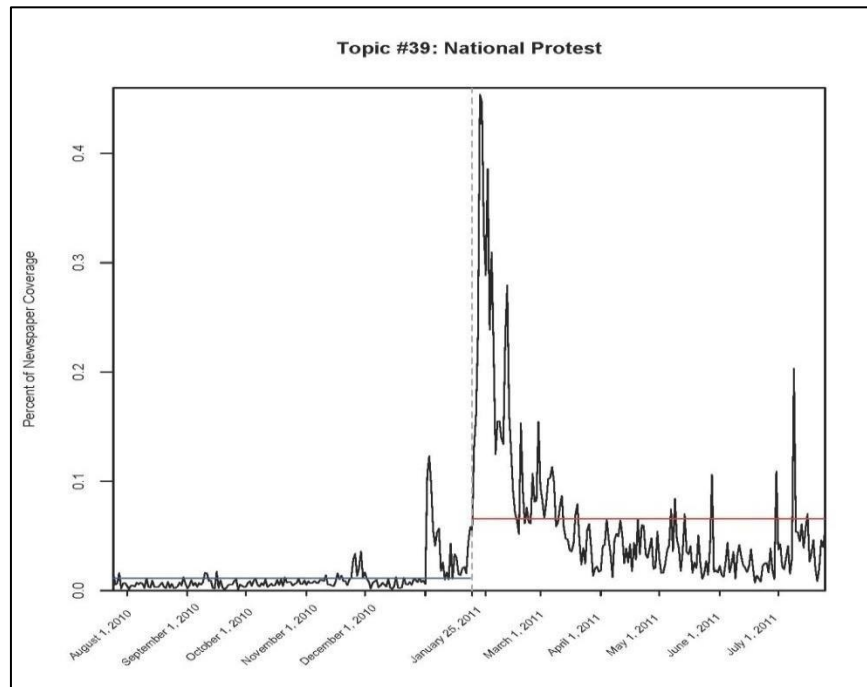
Figure 8

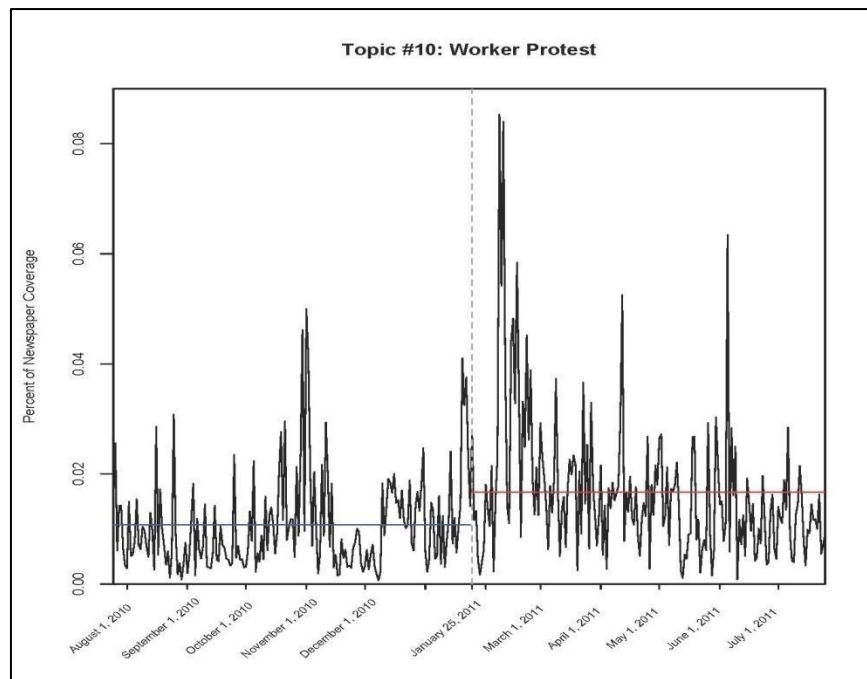Topic #39: National Protest

Figure 9

Topic #10: Worker Protest

It can be argued that coverage of protests is inherently event driven and thus this rise in coverage did not represent a systematic change in coverage. In fact, after its initial spike coinciding with

the 18-day period of mass demonstrations, coverage of national protests did decrease. Was this impact on the press temporary? One related topic helps paint a more nuanced picture. While coverage of protests only corresponded with live events, political discourse survived in the pages of the newspaper. The topic labeled *revolution* also increased in coverage over time, identified with words such as "revolution," "military," "Brotherhood," "authority," and "liberation." After the initial protests, political discourse did not disappear but rather evolved and expanded. Figure 10 shows that the decrease in coverage of *national protests* coincides chronologically with the rise in coverage of *revolution*. The Revolution thus spawned a discourse of political opposition that was to outlast discussion of mass street demonstrations.

Figure 10
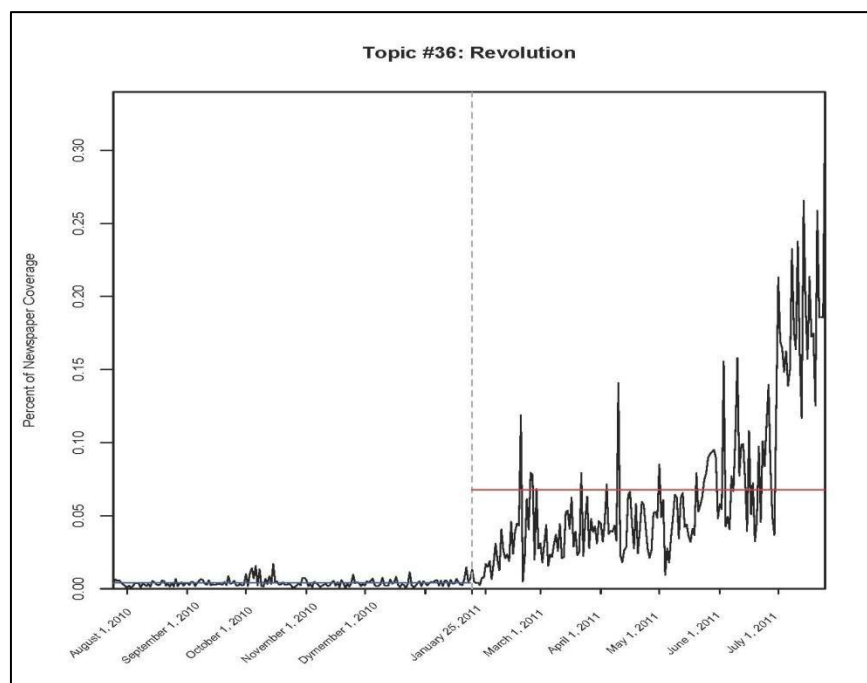
The Muslim Brotherhood

The *Muslim Brotherhood* topic characterizes how coverage of political opposition was restricted by social taboo and political pressure. The Brotherhood represented a thorn in the government's side since its founding in 1928, as it was endowed with tremendous mobilizing abilities that authorities considered threatening. Despite boasting membership well in the millions, the Islamic movement was continuously banned between 1954 and the fall of the Mubarak regime. Members could run for elected office only as independents, and several waves of arrests exposed the government's intensive efforts to suppress the movement. Because the Brotherhood had no official political arm, and facing pressure from the government, the media often only covered the Brotherhood in terms of arrests and extremist activity. Key words in the topic demonstrate this narrow type of coverage: "security," "arrest," and "Qaeda," in reference to the international

terrorist organization "Al-Qaeda." But the topic also includes terms that suggest political participation: "elections" and "political party," for example. These key terms were likely drawn from post-Revolution coverage of the Brotherhood, though not exclusively.

In a random sampling of five articles that cover the Muslim Brotherhood topic published in the six months leading up to the Revolution, the angles of coverage demonstrated some variability, though none of the articles report on the Brotherhood as a legitimate political actor. One article, for example, discussed possible perpetrators of the January 2011 bombing of a Christian Church in Alexandria, focusing on Islamist groups but making no explicit mention of the Muslim Brotherhood (Nour Al-Din 2011). A historical piece—a 2,600 word essay—recounted the political relationship between the Muslim Brotherhood and former president Gamal Adel Nasser, though it notably made no mention of current events or of Mubarak ("Abdel Nasser and the Group," 2010). Another piece—an opinion article—more pointedly analyzed the relationship between the banned Muslim Brotherhood and the governing National Democratic Party. In the article, "The State … And Legitimizing the 'Prohibited,'" the author, head of *Al-Masry Al-Youm*'s political Islam desk, envisioned a path of legalization for the Muslim Brotherhood (though he made no direct criticism of the existing relationship) (El-Khatib 2010).

In the six months after the Revolution, the percent of *Al-Masry Al-Youm* coverage devoted to the Muslim Brotherhood nearly doubled, demonstrating a highly tangible expansion of the newspaper's political discourse (see Figure 11; this increase was statistically significant with a p-value of 7.842e^-10). Several factors likely contributed to this new coverage. The fall of the Mubarak regime paved the path for the legitimization of the Brotherhood in the public eye, as its widespread support was generally recognized. Though the movement was declared legal only in June, plans for political participation were immediately set in motion after the Revolution. These plans culminated in the establishment of the movement's political wing, the Freedom and Justice Party. A random sampling of five post-Revolution articles that cover this topic demonstrates how much of the post-Revolution coverage focused on the newfound politicization of the movement.[7] One article, for example, described divisions within the movement about the political future of the party and sourced several high-level members directly rather than depending only on public statements (El-Wazeery 2011).

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[7] As noted, the movement had previously participated in politics only through "independent" candidates.

Figure 11

Topic #3: Muslim Brotherhood
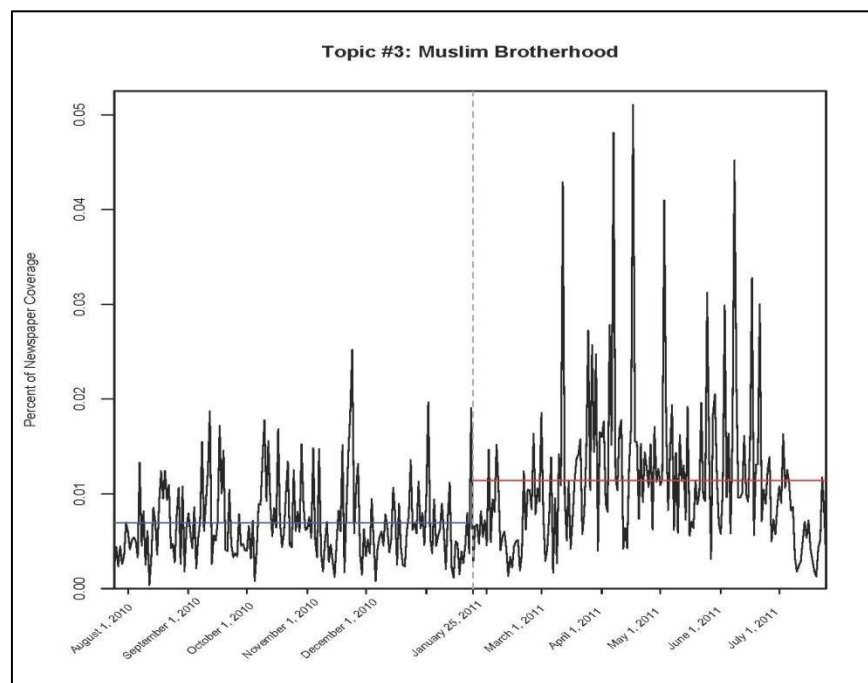
But the increased coverage also reflects a general trend of reporting on a range of political parties. One article in this sample from after the Revolution reported directly on a public statement from the leader of the extremist Islamic Group *Jamiyyat Islamiyya* (Abeer and Dabashi 2011). Another article quoted a Muslim Brotherhood leader explaining that contrary to military accusations that he was laundering money to fund the organization, the membership itself financially supported the organization (Qassem and Shamis 2011). Unlike past reports that tended to frame the organization as the antagonist, this article did not include such accusatory quotes but rather offered a positive perspective on an opposition political party.

Hisham Omar, a journalist at Al-Masry Al-Youm during this period, described the transformation in coverage of the Muslim Brotherhood in an interview (2011). He explained that in the aftermath of the Revolution, the public expected coverage of all political actors since many in the public were Brotherhood members. "Before the Revolution, the security forces weren't allowing [newspapers] to have something written about the Muslim Brotherhood, especially if it was good about them," he recalled. "After the Revolution, public awareness is demanding that you publish something that is correct." He said that coverage of the Brotherhood was now also not limited to the independent press. He was shocked, for example, when the national news wire service MENA interviewed a Muslim Brotherhood leader for his analysis of disappointing tourist numbers in Egypt. "This was something fascinating," Omar said.

After the Revolution, *Al-Masry Al-Youm* did not consider legal barriers in reporting on the Muslim Brotherhood, an organization that today plays a primary role in Egyptian politics. While the Mubarak regime may have sought to persecute the newspaper for writing positive or legitimizing reports on the Brotherhood, post-Revolution authorities could not challenge the movement's legitimacy. This growth in coverage also represented a public recognition of the size of the movement in Egyptian society and a significant expansion of the public political discourse. For the first time, the Egyptian press was playing a democratizing role by reporting on all parties, willing to set a new precedent for the sake of objective coverage.

Branches of Government: Presidency, Judiciary, and Parliament

Until the Revolution, the regime prohibited any in-depth reporting on the president. In March 2008, editor Ibrahim Eissa was sentenced to six months in prison for reporting false information after speculating on the health of the 80-year-old president. Although Mubarak ultimately pardoned the journalist—under popular and international pressure—this incident was a prime example of limitations on covering the presidency. Three years earlier, Mubarak was reelected with an improbable 88.5 percent of the vote in what was supposed to have been the first contested Egyptian presidential election (Whitaker 2005). Media coverage at the time was restricted by policies on reporting on the president as well as by the lack of an independent press (the usual depth of coverage of any single candidate for the American presidency was unimaginable in Egypt). The next elections were scheduled for the end of 2011, and the media indeed vigorously speculated about the future. A general assumption, though left unmentioned in most articles, was that Mubarak was becoming increasingly ill in his old age and might not run for the presidency. The media focused on possible opposition candidates but also knew that the regime would offer its own candidate. Most Egyptians believed President Hosni Mubarak would likely endorse his son Gamal, already a rising politician. In this period prior to the Revolution, coverage of possible succession thus filled the void of presidential coverage enforced by the regime.

The topic I used to analyze coverage of the presidency appeared to draw from terms reflecting basic political reporting on the office (note that in the first six months after the Revolution, the office of the presidency remained vacant while elections were planned). Key words in the topic include "elections," "political party," "president," "Mubarak," "Gamal," "presidential," and "reform." However, between January and May 2011—when the presidency was vacant— coverage of this topic spiked, as can be seen in Figure 12 (in one issue, 14 percent of the articles focused on this topic). Additionally, the mean amount of coverage over the six months after the Revolution remained substantially higher than the six months prior (statistically significant, p-value = $2.325e^{-09}$). Some words in the topic may help elucidate the reasons for this spike in coverage: the words "constitutional" and "amendments" reflected the major debate over drafting a new constitution that was common at this time. On March 19, precisely when the topic coverage spiked, Egypt held a referendum on constitutional reforms that included term limits for

the presidency and charged a commission to draft a new constitution following parliamentary elections. The word "elections" appearing in the topic may also have been in reference to the debate in society regarding the timing of these new parliamentary and presidential elections.

Figure 12
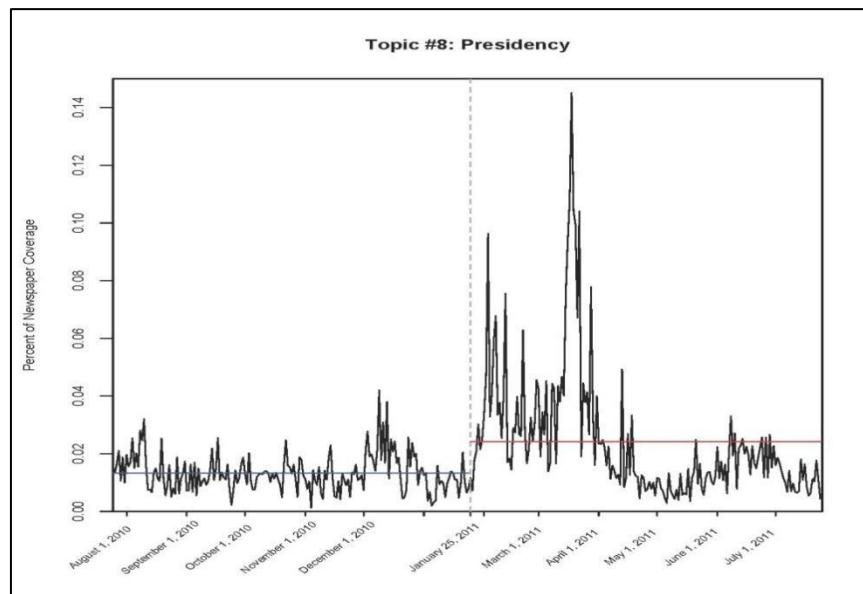
Given the existing public debate on the future of the presidency, the high coverage of this topic during the period after the Revolution does not paint a picture of the press smashing down established political and social barriers. Coverage of the former president, who was ordered to stand trial in May, rose only as his name and his authority fell into history. Also, writing about the past president may not necessarily predict greater coverage of politicians in the future. Furthermore, political conversation was already flooding the streets—18 million people participated in the referendum, and this was after one of the largest popular political movements in Egypt's history.

However, this paper argues that the press serves as an important mechanism to record and systematize public political discourse. The press is a tangible component of the public sphere that connects the reader to the political state. Unlike ethereal street conversations, news coverage is a systematic process that cannot be easily dismantled. The precedent set by coverage of the office of the presidency established a common practice, regardless of whether or not the press was the first actor to breach the topic. This practice may even outlast the current political environment and will be more difficult for future regimes to suppress. Overall, the rise in coverage of the presidency and the political process in general represents a strengthening of the public sphere unseen in Egypt in decades, setting the stage for democratization.

In order to further support these findings, I examined topics related to other branches of government for which an increase in coverage could also signify a greater level of political

engagement. For this analysis, I looked at coverage topics that I labeled *judiciary* and *parliament*. Coverage of the judiciary topic rose in the period after the Revolution as demonstrated in Figure 13 (statistically significant, p-value = 0.01403). Though *judiciary* remained a minor topic in coverage (less than 1 percent), this increase is particularly interesting because of the traditional distance between the judiciary and the public in Egypt. Despite their fraudulent history, elections for the president and the parliament established the appearance of a direct connection between the people and the state. Members of the judiciary, on the other hand, receive lifetime appointments from the Egyptian president, requiring approval only from the Supreme Judicial Council. Thus, the press is the sole mechanism for popular oversight of the judiciary. Notably, words within the topic suggested coverage of political trials. While top words like "justice," "judiciary," "law," and "court" indicate that the topic referred to the system as a whole, other topic keywords pointed more specifically to coverage of political trials, including the prosecution of journalists. These words include "syndicate,"[8] "journalists," "justice," "press," "liberty," and "newspapers." While a rise in prosecution of the press does not augur well for democratization, coverage of such trials exposes them to the public eye and suggests that the press continues to fulfill its democratic responsibilities in the face of persecution.

Figure 13
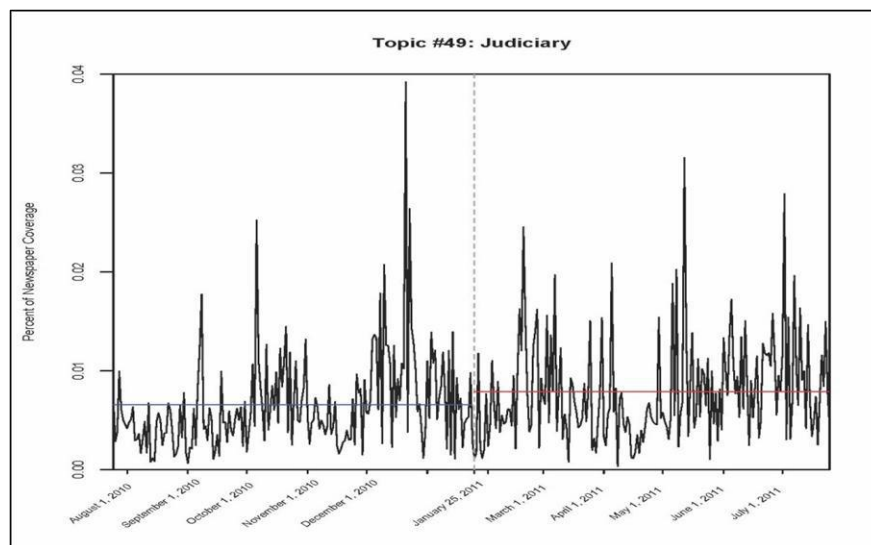
The *parliament* topic clearly focuses on parliamentary elections: top words include "elections," "political party," "parliament," Wafd,"[9] "candidate," and "voters." But the list also includes words that suggest a depth in coverage concentrating on marginalized and opposition voices. These words include "Brotherhood," "workers," "voices," and "independent." They generally reflected the relative freedom afforded parliamentary politics and coverage of parliamentary

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[8] Presumably, though not exclusively, in reference to the journalists and lawyers syndicates, both of which are vocal and powerful advocates for their members.
[9] The main legal opposition party in Egypt, which won 6 out of 454 seats in the People's Assembly of parliament in the 2010 elections.

politics under the regime. Prior to the Revolution, the regime had firmly secured its position in parliament (the regime's National Democratic Party won 420 of 454 seats in parliament in the 2010 elections) and the Muslim Brotherhood was officially banned from politics. The 2010 parliamentary elections, for example, were widely considered fraudulent yet were covered superficially nonetheless by the press with some degree of freedom in reporting on candidates.

Thus, it is not entirely surprising that coverage of this topic in fact fell in the period after the Revolution (statistically significant, p-value $< 2.2e^{-16}$ as seen in Figure 13). After the Revolution, the Egyptian military dissolved the standing parliament without setting a permanent date for future elections. As a result, political reporters were unlikely to reference a nonexistent parliament and had no impending elections to write about.

Figure 14
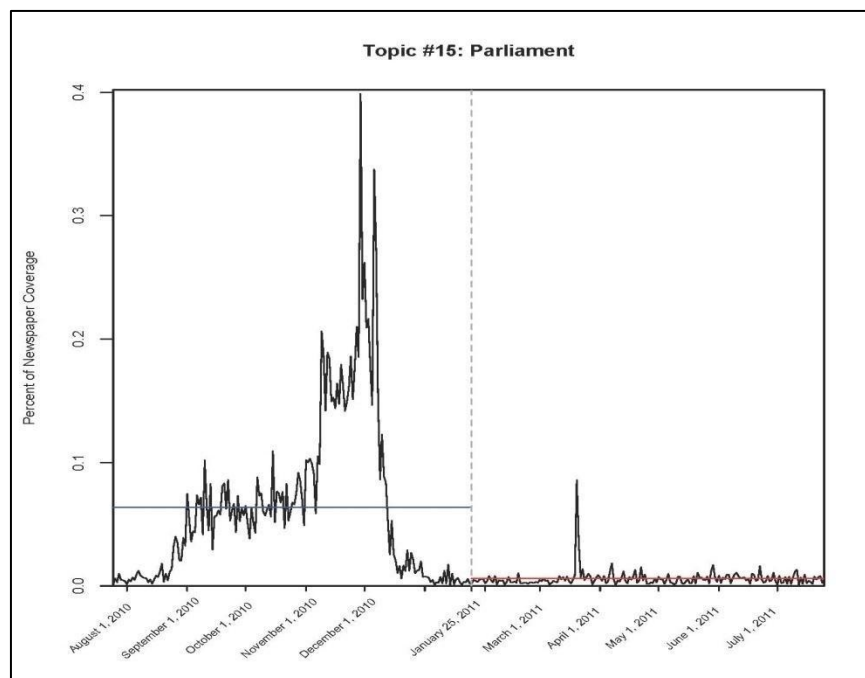
One sector of government was notably absent from the entire topic model: the military appeared rarely even as a keyword in any of the topics. The keyword "army" appeared in only three topics, and two of those appearances were in reference to the American army in Iraq and Afghanistan. The third instance occurred in the *political protest* topic that focused on the protests in Tahrir Square since the upheaval began on January 25, 2011. It should be noted again that this topic label is my own conjecture based on keywords such as "demonstrations," "revolution," "security," and "Tahrir Square." But these findings suggest that the military was covered only in reference to its roles in the protests (in some cases siding with the protesters and in others clearing them out). The word did not appear at all in reference to topics of general politics or governance. The keyword "military" and its adjectival form—as in "military authority"— followed a similar pattern. One instance referred to foreign affairs, and two other instances

appeared within topics clearly related to the post-Revolution period (*political change* and *revolution*). This lack of coverage of the military in pre-Revolution Egypt is even more remarkable when one considers the institution's prevalence in society. Not only do nearly all Egyptian men serve in the military, but it also plays an enormous role in Egyptian society beyond national defense. As a result of military and non-military commercial holdings, the Egyptian army reportedly controls as much as 40 percent of the economy (Hammer 2011; precise figures are not made available). However, my analysis did not identify a significant shift in coverage of the institution immediately after the Revolution. In fact, according to interviews and recorded multiple instances of arrests of journalists, in-depth reporting on the military remained a "red line" or taboo topic. This lack of coverage demonstrates the extent to which coverage of a primary segment of state authority was absent in the Egyptian press both before and after the Revolution.

Conclusion

The Egyptian parliamentary elections last year represented only one step toward democratization in the wake of the Revolution. If Egyptian society does not follow suit, adapting to its new role in a democratic state, the political transition risks evaporating under renewed authoritarianism. The military must, for example, fully detach itself from politics, civil society must find its voice, and the media must embrace its responsibility as the Fourth Estate.

In interviews conducted over the summer of 2011, I found that the post-Revolution Egyptian press continued to fall short of playing this necessary role in a democracy. In such a role, the Egyptian press must act as a political watchdog, serve as a check on government authority, and enable voters to make informed judgments (Scammell and Semetko2000, xiii). Prior to the Revolution, the Egyptian press was restrained by both internal and external factors. Journalistic standards and goals did not line up with a democratic role for the Egyptian press. Also, government-run newspapers, some of the largest institutions of the Egyptian press, maintained institutional ties to the ruling regime. However, following the fall of Mubarak subsequent regimes have meddled in press coverage and continue to do so, as the still-active Ministry of Information indicates. Thus a qualitative analysis of the media environment in Egypt suggests a laborious progression towards a more democratic role for the Egyptian press.

A quantitative analysis, however, demonstrates that the press in fact substantially covered the political sphere in the months after the Revolution, crossing boundaries that had formed under the previous authoritarian regime. Newspapers like *Al-Masry Al-Youm* readily responded to the dissolution of "red lines" with a sharp rise in coverage of topics that were formerly off limits. Opposition protests that reflected this growing public sphere were recorded and disseminated in the press. Reporting and writing about the Muslim Brotherhood further demonstrated a new awareness of the breadth of the political spectrum. Coverage of the branches of government has set a precedent for public engagement with politics that extends beyond taking to the street.

Future democratization in Egyptian society will depend on a public sphere maintained and expanded by a robust press. The extent to which politics has entered dinner-table conversation would shock a visitor from Egypt's pre-Revolutionary era. This textual analysis of newspaper content demonstrates that such popular engagement with politics—the public sphere—has begun to institutionalize itself in the form of the press. A similar analysis of recent newspaper coverage would reveal to what extent the press has preserved this newfound role. But the sophisticated political coverage evident in the pages of Al-Masry Al-Youm in the months after the Revolution is one strong indicator that Egyptian society, now with a democratically-elected government, will continue down the path of democratization.

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Appendix A

Al-Masry Al-Youm, January 26, 2011.

Source: American University in Cairo University Archives, photocopy.

Appendix B

The process of scraping text from the website produced a corpus of 234,315 articles spanning 2,161 newspaper editions. The first issue scraped from the website dates to November 24, 2005 and represented the newspaper's 529th issue. The last issue dates to October 25, 2011, reflecting the date on which the scraping was conducted and representing the newspaper's 2,690th issue, though my analysis primarily focuses on the period ending July 25. In preparation for the LDA code, I transliterated the Arabic text and applied a stemming code that removes superfluous characters and words, such as punctuation, prepositions, conjunctions, the definite article, and other prefixes and suffixes attached to Arabic nouns and verbs.[10] This process of reducing the text to its most basic form, following established pre-processing steps for natural language analysis with some additional coding to account for the Arabic script (Manning et al. 2009), produced a collection of 583,215 total term observations, still a massive quantity of data.

In order to reduce the size down to the most relevant information, I applied code to remove terms that occur in less than one percent of the articles and were therefore irrelevant to common topics. I did the same for terms that appear too frequently (more than 99 percent of the time), including remaining superfluous terms and words on the webpage that are not related to the article. By eliminating the highest and lowest frequency terms, I created a more manageable collection of 5,246 unique terms.

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[10] The Python stemmer was designed by Rich Nielsen and Iain Osgood, a graduate student in Harvard's Department of Government.

Appendix C: Topics with Top 10 Terms (translated)

TOPICS:	Worker Protest	National Protest	Revolution	Muslim Brotherhood
1	Workers	Security	Revolution	Brotherhood
2	Workers	Demonstrators	Military	Group
3	Sit-in	Demonstrations	Brotherhood	Muslims
4	Company	Power	Parliament	Islamic
5	Strike	Midan	Election	Organization
6	Syndicate	Tahrir	Party	Party
7	Work	Internal	Israel	Politics
8	Financial	Revolution	Power	Guide
9	Exchange	Demonstration	Honor	Leaders
10	Guinea	Security	Mubarak	Security

| TOPICS:	Presidency	Judiciary	Parliament
1	Party	Judges	Elections
2	Elections	Syndicate	National
3	Parties	Council	Party
4	Constitution	Judiciary	Candidate
5	Politics	Journalists	Candidates
6	President	Law	Brotherhood
7	Democrat	Judicial	Electoral
8	Amendments	Lawyers	Department
9	Constitutional	Council	Seat
10	Mubarak	Government	Parliament

Appendix D: Topic Distribution in LDA Topic Model with 50 Topics
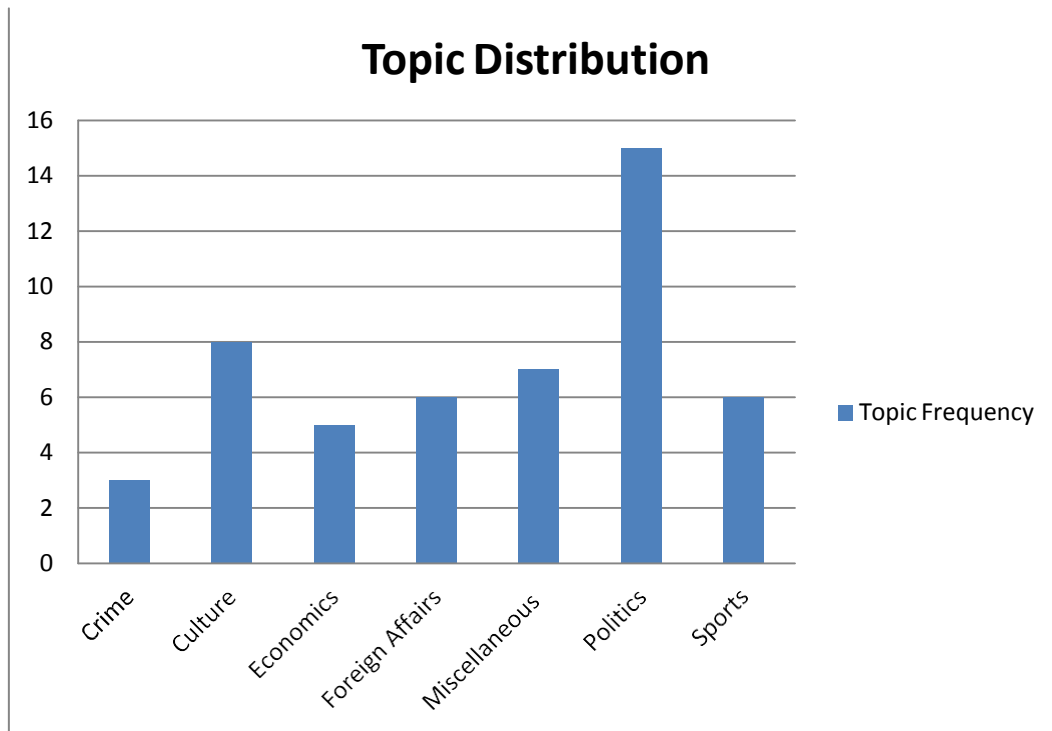
Appendix E: Robustness Check: Number of Topics Covered per Newspaper, 1 year excluding period of Revolution (10% minimum per article)
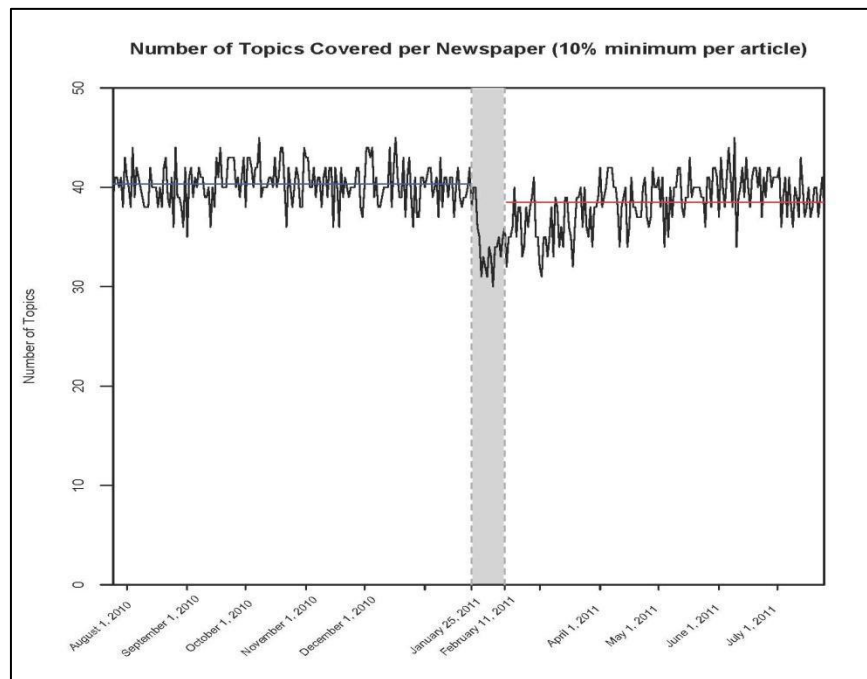
Appendix F: Robustness Check: Number of Topics Covered per Newspaper, entire corpus (10% minimum per article)
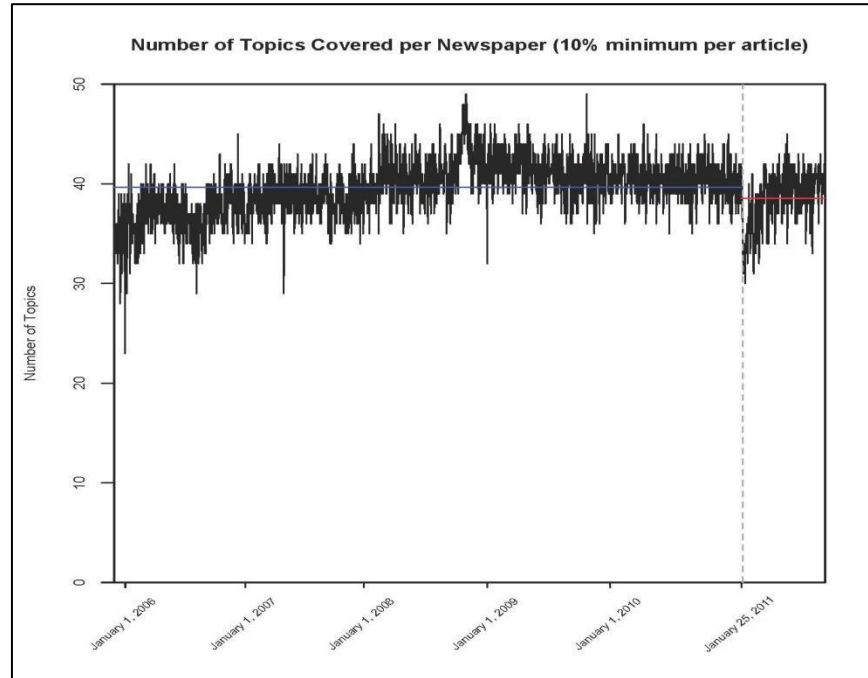
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