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RESEARCHING MISLEADING INFORMATION WITHIN HYBRID MEDIA ECOLOGIES. WHERE WE ARE AND WHERE WE ARE GOING

Panel description

On Friday November 13, a group of coordinated attacks hit Paris causing more than 130 victims. The frantic moments following the first fragmented news, the spread of rumors and the wide media coverage of the following days, highlighted all the strength and fragility of an hybrid media system in which new and old media logics compete and integrate.

During the hours following the attacks, we have witnessed the spread of testimonies published on social media and widely diffused by legacy media, we have observed the events.

Contemporary information ecologies, by simplifying processes of production and circulation of news, could also facilitate the diffusion of false information and/or unverified news. In this context, new digital elites (i.e. bloggers, social media power users etc.), legacy media actors and non-elites are still in search of a strategy for real time verification and debunking.

Previous studies emphasized the importance of echo chamber effects and "confirmation bias" (the tendency to consider true information that confirms what we already believe eventually proved to be false, have contributed to shape the representation of those emergence of forms of cooperation aimed at supporting the search for the missing and we have participated in the ritual of collective mourning with the hashtag #PrayforParis. At the same time, however we have also read numerous reports that, although true) as the cognitive process that, at the same time, makes misinformation easy to spread and difficult to debunk. Peer networks play an important role as a source of confirmation or disconfirmation of rumors. As a result, homophilic and polarized communities represent a fertile ground for disinformation. Recent studies also pointed out the combined effect of "confirmation bias" and online communities often characterized by a high degree of homogeneity.

While widely analyzed from different disciplines, both the studies on spread of rumors, and false or misleading information still lack that level of conceptual coherence that

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would allow different approaches and academic backgrounds to fruitful collaborate. Recognizing this limit, several defining attempts have been carried on.

By pinpointing the limits of existing predominantly actor-oriented taxonomies when applied to hybrid media ecologies, the first paper in this panel introduces an alternative process-based classification that distinguishes between "mis-information" (where a false information generated by a third actor is, in a short run, picked up and diffused by mainstream media, without verification and producing legitimization), "pseudo-information" (where "alternative" media sources produce information aimed at correcting the mainstream media system by giving voices to alternative takes on reality considered not adequately represented by traditional media) and "fake-information" (in which media actors specialized in the production of false information injects fake-news, mainly within social media ecologies for propaganda, to get attention and clicks, to earn revenues from online ads).

The three following papers further elaborate on each of those category:

By presenting a new model of news flow in the hybrid media ecologies, the second paper in this panel will dig deeper and shed more light on the processes behind "misinformation" with a specific focus on the effects of the SNS proliferation on news production, and especially on the quality and diversity of the information presented.

The third paper in this panel discusses the role played by social media as platforms where news as well rumours circulates in response to a lack of transparency on mainstream media. The empirical analysis of the conversations originated on Weibo by the 2015 devastating explosions in Tianjin - northern China -, highlights an alternative take on the beneficial role of "pseudo-information" as a form of counter-power against the ruling regime in authoritarian contexts.

The fourth and last paper, presents the findings from a multi-sided online ethnographic study of 12 Danish Facebook pages that during 2015, claimed to be run by radical Islamists living in Denmark and through aggressive and violent language, proclaimed that Muslims in the country were plotting to destroy the Danish society from within. Contents created by this orchestrated campaign of "fake-information", received thousands of comments the majority of which contained counter-aggression towards not only the page admins but also Muslims and immigrants in general. This massive user attention turned the pages into sites of aggression and xenophobia, making them part of a much larger discursive struggle to define the "truth" about Muslims and immigrants in the country.

Combined, these papers explore some of the ways in which theoretical and empirical scholarly investigations can open up paths for a new cross-disciplinary research agenda on the spread of misleading information in contemporary hybrid media ecologies.

A NEW TAXONOMY FOR MISLEADING INFORMATION CIRCULATING WITHIN HYBRID MEDIA ECOLOGIES

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Introduction

Following an initial phase where early adopters believed that structural differences and diffuse interactivity could have saved online news from the spread of misleading information, it is now largely acknowledged that the Internet can be an even more powerful potential means of disinformation than traditional mass media (Floridi, 1996). While the problem of disinformation endangers various subjects (from health-related information to scholarly communication) it appears to be of paramount importance when it affects news, political communication or other topics relevant for the development of contemporary public sphere (Dahlberg 2001).

Despite widely recognized as a crucially important issue for the future of our democracies and therefore widely studied from different disciplines, disinformation still lacks a commonly accepted unique definition and clearly described typologies. Starting from an up to date and in depth cross-disciplinary literature review, the paper introduces a new taxonomy of disinformation based on three distinct processes: mis-information, pseudo-information and fake-information.

Processes of misleading information

Considering the centrality of the concept of good information for healthy functioning democracies, is not surprising that both the spread of rumors, and false or misleading information in general attracted a wide and very diversified academic attention. This body of literature can be traced back to the stream of post-II-world-war studies on the effects of media on public opinion. In their seminal work, Allport and Postman (1946) identified "the basic law of rumor" declaring that rumor strength (R) will vary with the importance of the subject to the individual concerned (i) times the ambiguity of the evidence pertaining to the topic at hand (a), or $R \approx i \times a$. While the definition clearly suggests the coexistence of a psychological and a cultural dimension, disciplinary specialization has led to studies mainly focused on either one or the other aspect and a general lack of conceptual coherence (Rojecki & Meraz, 2014). Nevertheless, most of the studies agrees on underlying [1] the importance of "confirmation bias" (the tendency

to consider true information that confirms what we already believe true) as the cognitive process that, at the same time, makes misinformation easy to spread and difficult to debunk (Nyhan & Reifler, 2010; Weeks, 2015) and [2] the role played by peer networks as a source of confirmation or disconfirmation of rumors (Southwell, 2013). As a result, homophilic and polarized communities represent a fertile ground for disinformation (Lewandowsky, Ecker, Seifert, Schwarz, & Cook, 2012). More recent studies also pointed out the combined effect of "confirmation bias" and online communities often characterized by a high degree of homogeneity (Bode & Vraga, 2015; Silverman, 2015).

Existing literature contains several attempts of defining exhaustive and useful classifications (Fallis, 2015). The ephemeral nature of such taxonomies and the confusion characterizing the definitions of specific genres of misleading information circulating within information ecologies is most probably the result of the instability and never-ending transformations of such ecologies.

The paper propose a new taxonomy for genres of misleading information that fits better with contemporary hybrid media systems, (Chadwick 2013) i.e. ecologies of news where older and newer media technologies, genres, norms, behaviors, and organizational forms are highly intertwined.

Defining a new taxonomy is the first step to properly address, theoretically and empirically, an issue that is emerging as one of the very crucial problems characterizing contemporary political and social environments.

Most of the taxonomies proposed so far are based on the distinction between false information resulting from honest mistakes (often defined as misinformation) and the one resulting from deliberate intention to deceive (disinformation). However, in contemporary hybrid media ecologies, circulation of (false) information is the result of a process involving an highly diverse plethora of actors who are very unlikely to be all guided by the same rationale (and by the same awareness of information's fallacy).

For this reason, while an exclusively "actor-oriented" taxonomy may be inadequate to meaningfully describe real everyday cases, a process-oriented one could the very nature of contemporary (dis)information reality.

On these premises, we developed the following tripartite process-oriented taxonomy:

1) "mis-information" as a process where a false information generated - deliberately or not- by a third actor is, in a short run, picked up and diffused by mainstream media. Mainstream media are increasingly relying on online sources to feed their news-streams, however the process of verification sometimes fails resulting in the spread of unverified rumors. Once legitimated by the first mainstream media, the rumor is often picked up by other media referencing the first media as a source thus often avoiding further verification. Such legitimization generate a mis-information cascade potentially involving all other actors in the hybrid media system.

- 2) "pseudo-information" as a process where "alternative" media sources (online and offline) produce false information aimed at correcting the mainstream media system by giving voices to alternative takes on reality considered not adequately represented by traditional media (e.g. pseudo-science and conspiracy theories). Such contents are initially shared within homophilic communities already supporting such vision of reality, however, facilitated by social media and fueled by the wide distrust toward traditional media, these information eventually circulate also outside of these echo-chambers.
- 3) "fake-information" as a process in which media actors specialized in the production of false information injects fake-news, mainly within social media ecologies, to get attention and clicks, to earn revenues from online ads. Injecting fake-news can also be motivated by satire (as in the case of The Onions), by the desire to damage a competitor or for propaganda. By contradicting existing expectations and adopting a sensationalistic style, "fake-information" can attract users who, frequently, recirculate them on their feeds without reading the whole stories.

Following a brief presentation of the existing literature and leveraging on real cases, the paper will discuss the main limitations of current taxonomies when applied to hybrid media ecologies and how the proposed one overcomes those limitations.

References

Allport, G. W., & Postman, L. (1946). AN ANALYSIS OF RUMOR. *Public Opinion Quarterly*, *10*(4), 501–517. http://doi.org/10.1093/poq/10.4.501

Bode, L., & Vraga, E. K. (2015). In Related News, That Was Wrong: The Correction of Misinformation Through Related Stories Functionality in Social Media. *The Journal of Communication*, 65(4), 619–638. http://doi.org/10.1111/jcom.12166

Chadwick, A. (2013). *The hybrid media system: Politics and power.* Oxford University Press.

Dahlberg, L. (2001). Computer- mediated communication and the public sphere: A critical analysis. Journal of Computer- Mediated Communication, 7(1), 0-0. 10.1111/j.1083-6101.2001.tb00137.x.

Fallis, D. (2015). What Is Disinformation? *Library Trends*, *63*(3), 401–426. http://doi.org/10.1353/lib.2015.0014

Floridi, L. (1996). Brave. Net. World: the Internet as a disinformation superhighway?. The Electronic Library, 14(6), 509-514. http://dx.doi.org/10.1108/eb045517

Lewandowsky, S., Ecker, U. K. H., Seifert, C. M., Schwarz, N., & Cook, J. (2012). Misinformation and Its Correction: Continued Influence and Successful Debiasing. *Psychological Science in the Public Interest: A Journal of the American Psychological Society*, *13*(3), 106–131. http://doi.org/10.1177/1529100612451018

Nyhan, B., & Reifler, J. (2010). When Corrections Fail: The Persistence of Political Misperceptions. *Political Behavior*, 32(2), 303–330. http://doi.org/10.1007/s11109-010-9112-2

Rojecki, A., & Meraz, S. (2014). Rumors and factitious informational blends: The role of the web in speculative politics. *New Media & Society*. http://doi.org/10.1177/1461444814535724

Silverman, C. (2015). Lies, Damn Lies, and Viral Content. How News Websites Spread (and Debunk) Online Rumors, Unverified Claims, And Misinformation. *Tow Center for Digital Journalism*.

Southwell, B. G. (2013). Social Networks and Popular Understanding of Science and Health: Sharing Disparities (1st ed.). Baltimore, MD, USA: Johns Hopkins University Press. Retrieved from http://dl.acm.org/citation.cfm?id=2564778

Weeks, B. E. (2015). Emotions, Partisanship, and Misperceptions: How Anger and Anxiety Moderate the Effect of Partisan Bias on Susceptibility to Political Misinformation. *The Journal of Communication*, 65(4), 699–719. http://doi.org/10.1111/jcom.12164

THE NEW FLOW OF NEWS FLOW IN A HYBRID MEDIA: HOW SOCIAL NETWORK SITES TRANSFORM NEWS ORGANIZATIONS AND CITIZENS' POLITICAL BEHAVIOUR

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Abstract

Politically informed citizens are considered pillars of the democratic regime. Yet, traditional news consumption has steadily declined as of late. Thus, knowledge gaps between citizens have arisen (Prior, 2005), endangering informed democratic processes and participation. To accommodate the changed landscape, news organization and news production are undergoing profound changes. This talk points to the emergence of such a fundamental shift in news distribution according to which professional news organizations are partnered with digital social network sites (SNSs) as sources of political information. News organizations have embedded social plugins (e.g., tweet and share buttons) into their news websites, thereby establishing a direct connection with SNSs. This, I argue, creates a new –and categorically different – model for news distribution. The media industry is relying on a new economic model in which users are no longer acting solely as consumers, but rather, as a new type of distributors, blurring the distinction between consumers and producers. For the first time, the carefully maintained barriers between news organizations' outlets and individuals' social networks shook and crumbled, transforming of news into a 'social' commodity. Under such conditions, misinformation can be distributed much faster and much easier than ever before.

Theoretically, this change demands scholars to re-think their conceptualization of media environment and the models describing the distribution of political information among citizens. Most studies probing the issue of how citizens get informed point to two main sources: political discussions with other people and traditional news consumption (e.g. Ahn, Huckfeldt, & Ryan, 2010; Prior, 2005). Yet, today, these two areas are becoming increasingly interconnected. This is yet another example for/of media convergence[1]: an on-going long term process that created a world in which it is no longer feasible to differentiate between mass communication and inter-personal communication (Castells, 2013; Walther et al., 2010). Thus, creating a hybrid media environment. It goes to reason that in such an environment - where traditional hierarchies as less pronounced - misinformation will be by considered equally credible by users. Accordingly, users are missing some of the conventional cues separating between rumors and misinformation and corroborated news stories.

Past theoretical models of news distribution assumed some type of vertical logic where

news organizations create content and then distribute it to audiences (although several models do account theoretically for news distribution among audiences. Bennett & Manheim, 2006; Bimber, 2003; Hindman, 2008). I contend that, due to the merging of news production and social media, and the creation of a new hybrid media, news distribution today is better described by a new model based on horizontal network logic (Bennett, Freelon, Hussain, & Wells, 2012). As a result, news flow is changing since SNSs are not governed by standards of professional journalism, but rather by the strength of social ties. By implication, this transformation is bound to have a significant social impact on having an informed citizenship and on citizens' political behavior. Consumers receive different blends of information, governed by unprofessional curators - their SNSs 'friends'. The quality, and more importantly heterogeneity of this information, eventually impact their political behavior and beliefs (Slater, 2007; Thorson & Wells, 2015). In a past pre-networked environment, professional standards stood in the way of misinformation distribution, or served as a trustworthy alternative. However, when news flow is governed by social ties, new rules apply. Under such conditions, virality and 'shareability' may play a more dominant role in comparison to the source.

Generally, the suggested model underscores how political engagement and strength of political identity contribute to the emergence to two types of consumers/actors: those acting as distributors - bridging between news sites and SNSs, and those who are immersed in their social network and rely on it as a sole provider of news. The suggested model delineates the long-term effects of these network roles with regards to political beliefs, identity, knowledge and participation (Stroud, 2011). Namely, it addresses the possibility of a political reinforcing process (Slater, 2007), brought by the social aspects now attached to news (Knobloch-Westerwick & Meng, 2011). In this talk I will outlines a model of news distribution and consumption, which takes into account the proliferation of SNSs with respect to the following important issues: (1) What are the effects of the SNS proliferation on news production, and especially on the quality and diversity of the information presented? (2) What characterizes SNS audiences? (3) What longitudinal effects will the distribution and consumption of news via SNSs have on citizens' political knowledge, behavior and beliefs? While these developments are in their early stages, SNSs are rapidly gaining dominance, radically changing news consumption. Therefore, it is imperative to capture this phenomenon at the outset and to explore its evolution via longitudinal research. This will enable us to point to future trajectories of news production and consumption. More so, by radically changing scholarly conceptualization of media consumption and production, a more precise understanding of media influence on citizenship can be achieved.

References

Ahn, T., Huckfeldt, R., & Ryan, J. B. (2010). Communication, influence, and informational asymmetries among voters. *Political Psychology*, *31*(5), 763-787.

Bennett, L., Freelon, D. G., Hussain, M., & Wells, C. (2012). Digital Media and Youth. In H. A. Semetko & M. Scammell (Eds.), *The SAGE handbook of political communication* (pp. 127-137): Sage.

Bennett, L., & Manheim, J. B. (2006). The one-step flow of communication. *The ANNALS of the American Academy of Political and Social Science*, 608(1), 213-232.

Bimber, B. A. (2003). *Information and American democracy: Technology in the evolution of political power*: Cambridge University Press.

Castells, M. (2013). Communication power: Oxford University Press.

Hindman, M. (2008). The myth of digital democracy: Princeton University Press.

Holbert, R. L., Garrett, R. K., & Gleason, L. S. (2010). A new era of minimal effects? A response to Bennett and Iyengar. *Journal of Communication*, 60(1), 15-34.

Knobloch-Westerwick, S., & Meng, J. (2011). Reinforcement of the political self through selective exposure to political messages. *Journal of Communication*, *61*(2), 349-368. doi:10.1111/j.1460-2466.2011.01543.x

Prior, M. (2005). News vs. entertainment: How increasing media choice widens gaps in political knowledge and turnout. *American Journal of Political Science*, 49(3), 577-592.

Slater, M. D. (2007). Reinforcing spirals: The mutual influence of media selectivity and media effects and their impact on individual behavior and social identity. *Communication Theory*, *17*(3), 281-303.

Stroud, N. J. (2011). Niche news: The politics of news choice: Oxford University Press.

Thorson, K., & Wells, C. (2015). Curated Flows: A Framework for Mapping Media Exposure in the Digital Age. *Communication Theory*, n/a-n/a. doi:10.1111/comt.12087

Walther, J. B., Carr, C. T., Choi, S. S. W., DeAndrea, D. C., Kim, J., Tong, S. T., & Van Der Heide, B. (2010). Interaction of interpersonal, peer, and media influence sources online. In Z. Papacharissi (Ed.), *A networked self: Identity, community, and culture on social network sites* (pp. 17-38). London: Routledge.

Webster, J. G. (2008). In J. Turow & L. Tsui (Eds.), *The Hyperlinked Society* (pp. 23-37). Ann Arbor: The University of Michigan Press.

^[1] Media convergence "describes the move towards fully integrated media delivery system" (Webster, 2008, p. 23)

CAN ONLINE RUMOUR BE A SOCIAL GOOD IN AN AUTHORITARIAN STATE? A CASE STUDY OF RUMOUR ON SINA WEIBO AFTER THE 2015 TIANJIN BLASTS

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Introduction

On 12 August, 2015 a series of explosions in Tianjin, northern China, devastated large areas of the region and killed over a hundred people. Due to the lack of transparency after the incident on mainstream media, social media such as Weibo became the major platform where news as well rumours about the blast were circulated by Chinese netizens. Rumours on social media during crises have long been studied in the field of Internet research, but most of these studies emphasise the negative effects of rumour, and therefore focus on how to control and detect them (Castillo, Mendoza, & Poblete, 2011; Shah & Zaman, 2011). However, this study explores whether or not rumours can be beneficial to the general public by analysing the impact of rumour as a counter-power against the authorities.

Theoretical background and research objectives

Drawing upon classic rumour theories, rumour is understood as unofficial information that results from collective uncertainty in the society when reliable information is not available (Shibutani, 1966; Rosnow, 1991; Kapferer, 2013, Difonzo et al., 1994). Since it is characterized as an 'unofficial source' but not an 'incorrect' one, rumour can be a form of pseudo-information (Anonymous, 2016) that by definition can true, informative, and beneficial to the public. Furthermore, the definition of rumour leads to questions, like Who is the official? Who has the authority to speak? This makes rumour particularly political and can be known as a grassroots' protest in an authoritarian state (Hu, 2009). As Kapferer (1990) states, 'a rumour constitutes a relation to authority' (2013, p.14). This relation between rumour and authority enables researchers to use rumour as a lens to explore how Weibo-based "rumour public" (Peterson & Gist, 1951) challenge the legitimacy of the ruling party.

In accordance with Kapferer's (2013) rumour theories, the political significance of rumour is two-fold: (1) rumour re-establishes the transparency of power and (2) constitutes counter-power. Drawing on this framework, this study explores the political impact of rumour using these following research questions:

RQ1: To what extent did rumour pressure the Chinese government to become more transparent about the Tianjin blasts incident?

RQ1.1: What were the major rumours surfacing on Weibo during this incident?

RQ1.2: How did the Chinese government responded to these rumours?

RQ2: What are the impacts of the Chinese government's rumour management strategies? Do they have counter-effect that stimulate more discussion over the issue, or there is evidence of chilling effects?

Research design and findings

Three data sets were collected and used in this study, and the details are summarized in the table below:

[Insert Table 1 here]

Content analysis (RQ 1.1)

To identify major rumours around Tianjin blasts, we conducted a content analysis of data sets of rumour rebuttal posts (RR), and Weiboscope set (WS) that consisted of posts that have been removed from the system. By doing so, 14 rumours were identified. With this result, we selected posts related to each rumour from three datasets, the basic statistics of which are presented in table 2. [insert table 2]

Clustering analysis RQ1.2

With findings from content analysis, we further assess how the Chinese government responded to different rumors through clustering analysis. The probabilities of topical weibo appearing in the (WS) and (RR) set were adjusted by the general interest in that topic as reflected by the probability of topical weibo in the search set. The log Odds ratios (log OR) were calculated for each topic in each set with the following formula:

$$\log_e OR_{(Topic=i,Set=j)} = \frac{(|i \cap j| + 0.5) \times (|\bar{i} \cap \bar{j}| + 0.5)}{(|i \cap \bar{j}| + 0.5) \times (|\bar{i} \cap j| + 0.5)}$$

The log OR for each topic in the WS set and AR set was plotted in Figure 1. Then we explored the source of heterogeneity in the OR with agglomerative hierarchical clustering (Hastie, Tibshirani, & Friedman, 2013). Results are presented in Figure 2.

[Insert Figure 1 here] [Insert Figure 2 here]

In general, the topic can be grouped into three clusters (Figure 2) and they were "highly refuted and maybe censored" (red topics), "casually refuted and casually censored" (black topics) and "let the public talk about them" (green topics).

Time series analysis – RQ 2

We used lead-lag analysis to explore if the authority's rumour response led to a decline of discussion or whether it actually had counter-effects that stimulated the public to discuss more about the issue. For each topic, the lead-lag associations between daily

number of posts in all three datasets were studied. Findings are summarized in figure 3. [Insert figure 3 here]

4. Discussion

Research question 1

Our findings show evidence that the Weibo-based rumours effectively pressure the government openly respond to rumour public's concern around the blasts. Most of rumours surfaced on social media during the Tianjin blasts challenge official information about this incident, or criticize the local authority for mismanagement and corruption. Findings from clustering analysis and time series analysis reveals the vast majority of rumours identified in this study received received government's official response on Weibo within 24 hours. This suggests that social media-based rumour effectively pressure the authority to reveal information that may otherwise be hidden from the public. Moreover, these findings also suggest during this incident that the authorities mostly rely on official accounts (e.g. police department) to refute rumours, rather than censorship.

Research question 2

Maintaining social stability is high on the Chinese government's agenda. Earlier studies found that the authorities either comfort the public through selectively responding to pressure from the netizens (Zheng, 2007; Yang, 2009), or suppress online discussion through vigorous censorship (Luo, 2014). However, our findings suggest that the official's rumour debunking did not lead to declines in the public's discussion over controversial issues. Our time series analysis result reveals that the official's rumour rebuttal posts on Weibo actually stimulate more discussion over the issue. For all six topics, the RR dataset time series was positively correlated with future level of SR dataset time series in five topics with the exception of "local media". Therefore, the increase in AR activities on online rumours was associated with an increase in general discussion of these six rumours.

Moreover, there is little evidence suggesting that online censorship had chilling effects over Weibo users' sharing of rumours. For corruption related rumours ("Ruihai" and "Officers" topics), censorship leads to more discussion over the issue. For "Pollution" and "Volunteers", the future WS set time series was positively correlated with the RR set time series. This means that the censorship activities lagged behind the general discussion, indicating a pattern of information suppression. In spite of this, the general public still talked about those topics and therefore we did not observe consistent chilling effects of such information suppression attempts. The chilling effect was observed only in the topic of "Casualties" in which the censorship activities were associated with reduced level of activity in the general discussion on the same day.

Conclusion

This paper has discussed the potential of rumour to constitute a counter-power against the ruling regime in authoritarian contexts. We analysed how the rumour public on Weibo use rumour to challenge the official information around the Tianjin blasts incident,

and how the authorities responded to it. Our findings show that Weibo users formed an effective counter-power to challenge the official discourse during this incident.

References

Castillo, C., Mendoza, M., & Poblete, B. (2011). Information credibility on twitter. In Proceedings of the 20th international conference on World wide web (pp. 675-684): ACM.

DiFonzo, N., Bordia, P., & Rosnow, R. L. (1994). Reining in rumors. Organizational Dynamics, 23(1), 47-62.

Friedrich, J. O., Adhikari, N. K., & Beyene, J. (2007). Inclusion of zero total event trials in meta-analyses maintains analytic consistency and incorporates all available data. BMC medical research methodology, 7(1), 1.

Fu, K.-w., Chan, C.-h., & Chau, M. (2013). Assessing censorship on microblogs in China: Discriminatory keyword analysis and the real-name registration policy. Internet Computing, IEEE, 17(3), 42-50.

Anonymous (2016). A New Taxonomy For Misleading Information Circulating Within Hybrid Media Ecologies. Paper proposal presented at AoIR 2016: The 17th Annual Meeting of the Association of Internet Researchers. Berlin, Germany: AoIR.

Hastie, T., Tibshirani, R., Friedman, J., & Franklin, J. (2005). The elements of statistical learning: data mining, inference and prediction. The Mathematical Intelligencer, 27(2), 83-85.

Kapferer, J.-N. (2013). Rumors: Uses, interpretations, and images: Transaction Publishers.

Luo, Y. (2014). The Internet and agenda setting in China: The influence of online public opinion on media coverage and government policy. International Journal of Communication, 8, 24.

Peterson, W. A., & Gist, N. P. (1951). Rumor and public opinion. American Journal of Sociology, 159-167.

Rosnow, R. L. (1991). Inside rumor: A personal journey. American Psychologist, 46(5), 484.

Shah, D., & Zaman, T. (2011). Rumors in a network: who's the culprit? Information Theory, IEEE Transactions on, 57(8), 5163-5181.

Shibutani, T. (1966). Improvised news: A sociological study of rumor: Ardent Media.

Shumway, R. H., & Stoffer, D. S. (2010). Time series analysis and its applications: with R examples: Springer Science & Business Media.

Yang, G. (2009). The power of the Internet in China: Citizen activism online: Columbia University Press.

Zheng, Y. (2007). Technological empowerment: The Internet, state, and society in China: Stanford University Press.

Hu Yong. (2009). Rumour as social protest. Communication and Society, 9

Tables and Figures

Table 1. Summary of datasets used in this study

| | Description | Data collection method | Keyword | Time frame | Number of posts |
|--|---|------------------------------|---|--------------------|--------------------|
| Data set 1 Search Result (SR) | General posts related to the incident collected from Weibo search page | Crawler | 'Tianjin' (天 津) 'explosion'(爆 炸) | 12 – 26 Aug. | 109099 |
| Data set 2 Rumour rebuttal posts (RR) | Posts that are used to refute rumour by official accounts, collected from Weibo search page | Crawler | 'Tianjin' (天 津) 'rumour- rebuttal' (辟谣) | 12 – 26 Aug. | 1744 |
| Data set 3 WeiboScope data (WS) | Posts related to Tianjin blasts that are removed from the system | WeiboScope | 'Tianjin' (天津) (explosion' (爆炸) | 12 – 26 Aug. | 464 |

Table 2. Basic statistics of each rumour topic

| Rumour | Abbreviation | posts in Search result | posts in WeiboScope dataset | Posts in 辟谣 dataset | Total number of posts |
|----------------------|--------------|---------------------------|--------------------------------|------------------------|-----------------------|
| Air-pollution | AIR | 1669 | 30 | 809 | 2508 |
| Casualty | CAS | 1081 | 25 | 573 | 1679 |
| Dead fish | DF | 460 | 5 | 0 | 465 |
| Ruihai background | RH | 252 | 33 | 84 | 369 |

| officer | OFF | 184 | 11 | 66 | 261 |
|--------------------|-----|-----|----|-----|-----|
| Local Media | LM | 128 | 54 | 184 | 366 |
| Foam after rain | FAR | 92 | 8 | 0 | 100 |
| "Burn Down" effect | BDE | 63 | 0 | 52 | 115 |
| Volunteer | VOL | 42 | 14 | 401 | 457 |
| Fake call for help | FСН | 36 | 0 | 637 | 673 |
| Health consequence | НС | 29 | 0 | 103 | 132 |
| Traffic | TRA | 7 | 0 | 604 | 611 |
| CNN | CNN | 0 | 31 | 581 | 612 |
| Chaos | СНА | 0 | 0 | 162 | 162 |

Figure 1: Tree diagram of clusters

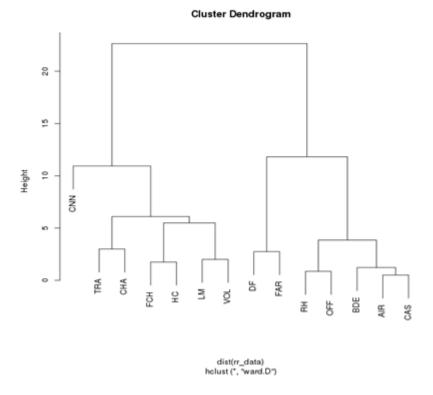


Figure 2: Log Odds ratios for each topic in the Weiboscope (WS) set and rumour-rebuttal (RR) set, with the colors of topic short names denote cluster membership.

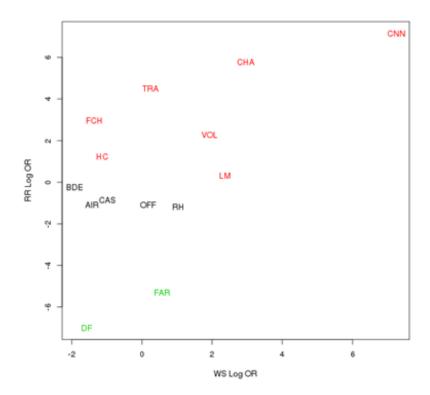
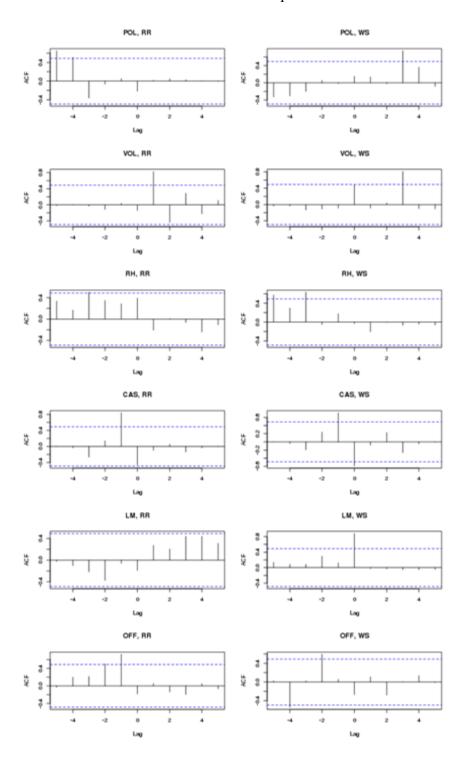


Figure 3: The lead-lag associations between Weiboscope set time series, rumour-rebuttal set time series and search set time series in six topics



CLOAKED FACEBOOK PAGES AND XENOPHOBIC PROPAGANDA: EXPLORING THE COMPUTATIONAL ARCHITECTURE OF FAKE-INFORMATION

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Introduction

Throughout 2015, a number of Danish Facebook pages became sites of racism and political struggle. These pages all claimed to be run by radical Islamists living in Denmark, and through aggressive and violent language, they proclaimed that Muslims in the country were plotting to destroy the Danish society from within. This plot would be effectuated through systematic violence, rape of women, and exploitation of the Danish welfare system. In the end, the goal of this destructive agenda would be to turn Denmark into an Islamic State under sharia law. These posts received thousands of comments and shares from Danish Facebook users. The majority of which contained counteraggression towards not only the page admins but also Muslims and immigrants in general. This massive user attention turned the pages into sites of aggression and xenophobia, making them part of a much larger discursive struggle to define the "truth" about Muslims and immigrants in the country. On average, each page only existed for about a week, as users would report them to Facebook for violation of their hate speech policies. Yet, following each of these deletions, new and almost identical ones would emerge using slightly different names, images, and rhetoric. This pattern - consisting of an on-going cycle of pages being created, hateful content being disseminated, users reacting, and Facebook deleting the pages – recurred several times throughout 2015. The biggest problem with this recurrent chain of events was that the Facebook pages at the centre of it all were forgeries. The authors were not extreme Islamists as they claimed. Rather, the pages had been created in order to deliberately spread fakeinformation (Anonymous, 2016) about Muslims in Denmark, create hostile antiimmigration imaginaries and provoke Facebook users to join the xenophobic spectacle of hostility. The pages were what we – following an appropriation of Daniel's (2009, 2014) concept of cloaked websites – define as cloaked Facebook pages. Based on the findings from a multi-sided online ethnographic study of 12 cloaked Facebook pages, this paper seeks to address the complex ways in which fakeinformation on social network sites is shaped through the interrelation of social and technological processes. In the context of our case, we specifically ask: How can we understand the deliberate dissemination of fake-information through Facebook? And what role does the appropriation of Facebook's computational architecture play in the shaping of cloaked Facebook pages?

Background

"Before the Internet" Daniels (2014) argues "we relied on a system of gatekeepers such as editors, publishers, broadcasters, and librarians, all of whom mediated information for knowledge seekers" (p. 143). While these gatekeepers have certainly not been dispensed with within the current media ecology, they have nonetheless been

reconfigured or supplemented by the emergence of the Internet. According to Daniels, this shift in who acts as gatekeepers "opens new opportunities for a wider range of ideas to be shared by a broader array of groups and individuals, and, at the same time, it raises some disturbing questions about how we acquire and verify knowledge" (ibid.). While Daniels did not frame her observation in this way, what essentially seems to be at stake is not just the reconfiguration of the individuals acting as gatekeepers, but also a reconfiguration of the underlying technological infrastructures through which information is mediated. What has changed, in other words, is not just the role of human actors but the whole communication ecology. In our view, this also means that if we are to understand the "disturbing questions" prompted by new media technologies – in this case how the Facebook pages in question managed to deceive thousands of users – we must include the computational architecture of the platform, its software, algorithms, user interfaces, and so on (Van Dijck, 2013), in our analysis.

Rather than merely a neutral tool, Facebook is designed to support very particular forms of communicative interaction and circulation of content. As Bucher has argued, these material conditions makes "[s]ocial networking sites ... essentially designed and programmable spaces that encourage the user to carry out specific actions" (2012: 480). In this context, van Dijck (2013) has observed that Facebook has in general been eager to demand transparency and openness from their users, while at the same time being reluctant to live up to such ideals as a company. What happens 'behind the scenes' is generally rendered invisible to the average user (Van Dijck, 2013; Langlois and Elmer, 2013). The relation between page administrators and users seems to be fuelled by an equally asymmetrical distribution of transparency and power (Schou et al., 2015; Lillqvist et al., 2015). Facebook's computational architecture allows admins to remain completely anonymous, delete any comment on their page without the authoring user being notified, and block specific users making them unable to provide any (additional) comments. As Lillqvist et al. (2015) have shown, this hierarchical structure has proven to be highly beneficial for commercial companies using Facebook pages, as it allows them to seem participatory and democratic, while at the same time having extensive control over the content on their pages.

Utilizing Facebook's Computational Architecture to Spread Fake-Information In the case of the cloaked Facebook pages discussed in this paper, the technologysupported hierarchy also proved to be highly beneficial for the dissemination of fakeinformation. Across the cloaked pages, the admins utilized Facebook's computational architecture in order to remain completely anonymous and out of sight, and users had no way of knowing who was actually behind. Based on this anonymity, the admins could then deceive and manipulate users by tactically utilizing pictures and graphics stolen from other sources, providing hyperlinks to existing Muslim organisations, and, most importantly, removing all comments that expressed scepticism towards the validity of the source. The latter was performed in such a way that the admin(s) would extensively monitor the user comments across the different pages and remove any content that expressed scepticism towards the authorship claimed by the pages. Furthermore, users making such comments would get permanently blocked from making any additional comments. This moderation of comments was performed in order to allow for the narrative of radical Islamism to be presented without any contestation: it was essentially a way of continuously legitimizing the fake-information spread by the page. What

remained visible were only the comments that did not dispute the validity of the source, yet often engaged in aggression and racism. For users entering these pages, this made it even harder to see through the deception.

Conclusion

Overall, based on a number of empirical examples from the cloaked Facebook pages, the paper argues that, in order to understand the production and dissemination of fake-information, it is imperative to take the computational architecture of new media platforms and the potential hierarchies they support into account. If we are to understand fake-information within the current media ecology, it is insufficient to merely analyse the (fake-)information in and of itself. The study of fake-information in the Internet age requires a focus on the multiple ways in social, technological and political processes overlap, interact and connect.

References

Bucher, T. (2012). The Friendship Assemblage: Investigating Programmed Sociality on Facebook. *Television & New Media* 14(6) 479–493.

Daniels, J. (2009). Cloaked websites: propaganda, cyber-racism and epistemology in the digital era." *New Media & Society* 11(5) 659–683.

Daniels J (2014). From Crisis Pregnancy Centers to Teenbreaks.com: Anti-abortion Activism's Use of Cloaked Websites. In Martha McCaughey (eds.), *Cyberactivism on the Participatory Web*, pp. 140-154. Routledge.

Anonymous (2016). A New Taxonomy For Misleading Information Circulating Within Hybrid Media Ecologies. Paper proposal presented at AoIR 2016: The 17th Annual Meeting of the Association of Internet Researchers. Berlin, Germany: AoIR

Langlois, G. and Elmer, G. (2013). The research politics of social media platforms. *Culture Machine* 14: 1–17.

Lillqvist, E., Louhiala-Salminen, L. and Kankaanranta, A (2015). Power relations in social media discourse: Dialogization and monologization on corporate Facebook pages. *Discourse, Context, and Media*. DOI: 10.1016/j.dcm.2015.11.001

Schou, J., Farkas, J. and Hjelholt, M. (2015). The Double Conditioning of Political Participation: Grassroots Politics on Facebook. *Conjunctions: Transdiciplinary Journal of Cultural Participation* 2(2) 29-47.

Van Dijck, J. (2013) *The Culture of Connectivity: A Critical History of Social Media.* Oxford: Oxford University Press.