**LITERATURE SURVEY**

**1) When Fake News Becomes Real: Combined Exposure to Multiple News Sources and Political Attitudes of Inefficacy, Alienation, and Cynicism**

**AUTHORS:**  M. Balmas

This research assesses possible associations between viewing fake news (i.e., political satire) and attitudes of inefficacy, alienation, and cynicism toward political candidates. Using survey data collected during the 2006 Israeli election campaign, the study provides evidence for an indirect positive effect of fake news viewing in fostering the feelings of inefficacy, alienation, and cynicism, through the mediator variable of perceived realism of fake news. Within this process, hard news viewing serves as a moderator of the association between viewing fake news and their perceived realism. It was also demonstrated that perceived realism of fake news is stronger among individuals with high exposure to fake news and low exposure to hard news than among those with high exposure to both fake and hard news. Overall, this study contributes to the scientific knowledge regarding the influence of the interaction between various types of media use on political effects.

**2) Miley, CNN and The Onion**

**AUTHORS:** **D. Berkowitz and D. A. Schwartz**

Following a twerk-heavy performance by Miley Cyrus on the Video Music Awards program, CNN featured the story on the top of its website. The Onion—a fake-news organization—then ran a satirical column purporting to be by CNN's Web editor explaining this decision. Through textual analysis, this paper demonstrates how a Fifth Estate comprised of bloggers, columnists and fake-news organizations worked to relocate mainstream journalism back to within its professional boundaries.

**3) The Impact of Real News about “Fake News”’: Intertextual Processes and Political Satire**

**AUTHORS:** **P. R. Brewer, D. G. Young, and M. Morreale**

This study builds on research about political humor, press metacoverage, and intertextuality to examine the effects of news coverage about political satire on audience members. The analysis uses experimental data to test whether news coverage of Stephen Colbert’s Super PAC influenced knowledge and opinion regarding *Citizens United*, as well as political trust and internal political efficacy. It also tests whether such effects depended on previous exposure to *The Colbert Report* (Colbert’s satirical television show) and traditional news. Results indicate that exposure to news coverage of satire can influence knowledge, opinion, and political trust. Additionally, regular satire viewers may experience stronger effects on opinion, as well as increased internal efficacy, when consuming news coverage about issues previously highlighted in satire programming.

**4)**  **Stopping Fake News**

**AUTHORS:** M. Haigh, T. Haigh, and N. I. Kozak

Social media is acting as a double-edged sword for universe in a way of consuming news. On one side, its ease of access, popularity and low cost distribution channel lead people to gain news from social media. On other side, it is also acting as a source of spread of `fake news'. The extensive spread of fake news on social media, websites are impacting society negatively. This makes extremely important to combat the spread of fake news and to aware the society. In this paper, we offer a review which lists out the sources of fake news, its types, generation, motivation and examples. Also, some approaches are suggested to spot and stop fake news spread.

**5) With Facebook, Blogs, and Fake News, Teens Reject Journalistic &quot;Objectivity&quot**

**AUTHORS:** R. Marchi

This article examines the news behaviors and attitudes of teenagers, an understudied demographic in the research on youth and news media. Based on interviews with 61 racially diverse high school students, it discusses how adolescents become informed about current events and why they prefer certain news formats to others. The results reveal changing ways news information is being accessed, new attitudes about what it means to be informed, and a youth preference for opinionated rather than objective news. This does not indicate that young people disregard the basic ideals of professional journalism but, rather, that they desire more authentic renderings of them.

**6) Social Media and Fake News in the 2016 Election**

**AUTHORS:** H. Allcott and M. Gentzkow

Following the 2016 US presidential election, many have expressed concern about the effects of false stories ("fake news"), circulated largely through social media. We discuss the economics of fake news and present new data on its consumption prior to the election. Drawing on web browsing data, archives of fact-checking websites, and results from a new online survey, we find: 1) social media was an important but not dominant source of election news, with 14 percent of Americans calling social media their "most important" source; 2) of the known false news stories that appeared in the three months before the election, those favoring Trump were shared a total of 30 million times on Facebook, while those favoring Clinton were shared 8 million times; 3) the average American adult saw on the order of one or perhaps several fake news stories in the months around the election, with just over half of those who recalled seeing them believing them; and 4) people are much more likely to believe stories that favor their preferred candidate, especially if they have ideologically segregated social media networks.

**7) The spread of fake news by social bots.**

**AUTHORS:** C. Shao, G. L. Ciampaglia, O. Varol, A. Flammini, and F. Menczer

The massive spread of fake news has been identified as a major global risk and has been alleged to influence elections and threaten democracies. Communication, cognitive, social, and computer scientists are engaged in efforts to study the complex causes for the viral diffusion of digital misinformation and to develop solutions, while search and social media platforms are beginning to deploy countermeasures. However, to date, these efforts have been mainly informed by anecdotal evidence rather than systematic data. Here we analyze 14 million messages spreading 400 thousand claims on Twitter during and following the 2016 U.S. presidential campaign and election. We find evidence that social bots play a key role in the spread of fake news. Accounts that actively spread misinformation are significantly more likely to be bots. Automated accounts are particularly active in the early spreading phases of viral claims, and tend to target influential users. Humans are vulnerable to this manipulation, retweeting bots who post false news. Successful sources of false and biased claims are heavily supported by social bots. These results suggests that curbing social bots may be an effective strategy for mitigating the spread of online misinformation.

**8) Faking Sandy:Characterizing and Identifying Fake Images on Twitter during Hurricane Sandy**

**AUTHORS:** A. Gupta, H. Lamba, P. Kumaraguru, and A. Joshi

In today's world, online social media plays a vital role during real world events, especially crisis events. There are both positive and negative effects of social media coverage of events, it can be used by authorities for effective disaster management or by malicious entities to spread rumors and fake news. The aim of this paper, is to highlight the role of Twitter, during Hurricane Sandy (2012) to spread fake images about the disaster. We identified 10,350 unique tweets containing fake images that were circulated on Twitter, during Hurricane Sandy. We performed a characterization analysis, to understand the temporal, social reputation and influence patterns for the spread of fake images. Eighty six percent of tweets spreading the fake images were retweets, hence very few were original tweets. Our results showed that top thirty users out of 10,215 users (0.3%) resulted in 90% of the retweets of fake images; also network links such as follower relationships of Twitter, contributed very less (only 11%) to the spread of these fake photos URLs. Next, we used classification models, to distinguish fake images from real images of Hurricane Sandy. Best results were obtained from Decision Tree classifier, we got 97% accuracy in predicting fake images from real. Also, tweet based features were very effective in distinguishing fake images tweets from real, while the performance of user based features was very poor. Our results, showed that, automated techniques can be used in identifying real images from fake images posted on Twitter.

**9) The Fake News Spreading Plague: Was it Preventable**

**AUTHORS: E. Mustafaraj and P. T. Metaxas**

In 2010, a paper entitled "From Obscurity to Prominence in Minutes: Political Speech and Real-time search" won the Best Paper Prize of the Web Science 2010 Conference. Among its findings were the discovery and documentation of what was termed a "Twitter-bomb", an organized effort to spread misinformation about the democratic candidate Martha Coakley through anonymous Twitter accounts. In this paper, after summarizing the details of that event, we outline the recipe of how social networks are used to spread misinformation. One of the most important steps in such a recipe is the "infiltration" of a community of users who are already engaged in conversations about a topic, to use them as organic spreaders of misinformation in their extended subnetworks. Then, we take this misinformation spreading recipe and indicate how it was successfully used to spread fake news during the 2016 U.S. Presidential Election. The main differences between the scenarios are the use of Facebook instead of Twitter, and the respective motivations (in 2010: political influence; in 2016: financial benefit through online advertising). After situating these events in the broader context of exploiting the Web, we seize this opportunity to address limitations of the reach of research findings and to start a conversation about how communities of researchers can increase their impact on real-world societal issues.

**10) Fake News Mitigation via Point Process Based Intervention.**

**AUTHORS:** **M. Farajtabar et al.**

We propose the first multistage intervention framework that tackles fake news in social networks by combining reinforcement learning with a point process network activity model. The spread of fake news and mitigation events within the network is modeled by a multivariate Hawkes process with additional exogenous control terms. By choosing a feature representation of states, defining mitigation actions and constructing reward functions to measure the effectiveness of mitigation activities, we map the problem of fake news mitigation into the reinforcement learning framework. We develop a policy iteration method unique to the multivariate networked point process, with the goal of optimizing the actions for maximal total reward under budget constraints. Our method shows promising performance in real-time intervention experiments on a Twitter network to mitigate a surrogate fake news campaign, and outperforms alternatives on synthetic datasets.