Addressing Fake News: Open Standards & Easy Identification

Joshua Hyman Graduate School of Public and International Affairs University of Pittsburgh Pittsburgh, PA josh@pitt.edu

Abstract— Fake news proliferation and distrust in news media has become an endemic problem in the American society and has aided in the corruption of civil political discourse. The formation of a standard and subsequent implementation using automated algorithmic processes will provide unbiased ratings and evaluations of online news media truthfulness in the form of easy-to-understand scores. This easily accessible information will aid in the reduction of fake news proliferation and help produce a more informed electorate.

Keywords—fake news, news media, misinformation, civil discourse, Internet, rating, truthfulness

I. OVERVIEW

Fake news has become an ever-increasing detriment to civil political discourse in American society. Voters are saturated with misinformation, fringe groups are empowered to disseminate fallacious messages with a power disproportionate to their size, and trust in traditional journalistic institutions has been illegitimately eroded. Further, positive feedback loops have developed that reinforce all of these issues, creating a spiral of deterioration of the informed electorate. "Alternative facts" are now disseminated from the highest political offices in the free world with little to no consequences.

Commonly, people are told to research before they post a story, to fact check before they click "share," and to generally become savvier as to the nature of fake news. These are unrealistic expectations. Many lack the skills, resources, time, or even motivation to perform this newly developing requirement. A clear need has manifested for a solution that allows the general public to have some means by which they can evaluate the validity of what they read as the news and information of the day. Scientific papers are peer reviewed, and businesses are graded; a way to judge news fact from news fiction is needed at least as much as these other similar solutions.

II. GOALS

The following goals should be met in order to address this growing issue:

- Develop a standard by which news purveyors can be evaluated.
- Blend autonomous analysis with human-driven processes to tackle the large scope of this issue.
- Work with industry to adopt, implement, and improve this solution.
- Provide the public with an easy-to-understand rating of news purveyors.

It is worth noting that news purveyors are the object of this standard and not the news stories themselves. There are two reasons for this. First, a solution that would address every news article is simply unrealistic. Second, and perhaps more importantly, it is the purveyors of news that enable this issue. Purveyors are gateways and portals by which information is disseminated. Further, people are creatures of habit – habits reinforced by current technology methodologies – and will tend towards the same few sources of news.

Providing a solution that can meet these goals will have multiple positive outcomes. First and foremost, it will improve political discourse by decreasing the efficacy of fallacious statements. Second, it will create a disincentive for the adoriented, clickbait economy. Third, it will build a common platform which Internet industries can utilize to fairly process, annotate, and provision information in their various networks. Finally, it will restore power to the truth; "alternative facts" are much harder to disseminate when those institutions that repeat them may lose their published credibility ratings. Reporting news and information has a moral and ethical obligation to the truth. The public good demands that truth in reporting be subjected to rigorous, open, and reasonable standards.

III. DEVELOP A STANDARD BY WHICH NEWS PURVEYORS CAN BE EVALUATED

A. Issue: A fair, open, and consistent methodology for judging the reputation of a news purveyor does not exist.
1) Background Generally, news purveyors have reputations that have been socially or culturally established. In the past, these are reputations that were built over time at institutions that required considerable resources to build and maintain. Before the age of the internet, a purveyor of news would be concerned with hiring considerable staff, housing printing presses, and providing office space for employees. These functioned as high barriers to entry, and thus a physical obstacle to the temptation towards fringe appeal.

Today, websites can be provisioned in seconds for very little capital. A single individual can function as journalist, editor, marketer, and publisher. While this has been a wondrous boon to the democratization of information, the spread of freedom of speech, and the empowerment of the oppressed, it has also removed many of the barriers that disincentivized the generation of fake news in the past.

This is compounded by the common news revenue generation model of the Internet: viewing advertisements. Bringing viewers to webpages or getting them to click on links drives much of online revenue. As was widely reported, a click-bait farm in Macedonia was making \$30,000 a month generating fake news clickbait headlines[1].

2) Recommendations

A standard should be created on which news purveyors can be evaluated. Recommended for inclusion are as follows:

- Factual accuracy of spot-checked articles
- Degree and consistency of bias
- Usage of misleading headlines
- Existence and utilization of effective retraction policies and procedures
- Clear distinctions between advertisements and content

Scales and metrics should be developed to evaluate news and information usingeach of these five criteria. This methodology should be open, fair, and rigorous.

3) Further Resources

An article in the *Journal of Nature* speaks about this issue and idea effectively: Williamson, P. <u>Take the time and effort to</u> <u>correct misinformation</u>. Nature, volume 540, issue 7632 (2016): page 171.

A well-written piece by *The Washington Post* also tackles this issue of the inappropriate degradation of news institutions: Bump, P. <u>If the New York Times is so inaccurate, where are all</u> of its corrections? The Washington Post, February 27th, 2016.

B. Issue: Fake news proliferation is exacerbated by "echo chambers" and curated content.

1) Background

Modern proliferation of news, real or otherwise, often arrives via the Internet on a social media app. This form is subject to an influence of bias that is generated, not necessarily by the company providing the application, but rather by the consumer of that application. Social networks and curated news sources – of which Twitter and Facebook should be most notable – suffer from a problem of the "echo chamber." A user "likes" certain posts, "follows" certain people, "shares" or "retweets" other's posts, and clicks on links of certain subjects. These actions begin the gradual generation of a self-made hall of mirrors, often only showing users a reflection of their own ideology. In the past, this has been blamed for various societal ills, mainly revolving around a reduced exposure to different ideas.[2] However, in the context of fake news, it has increased the impact of a different issue.

Fake news has been injected into these echo chambers, formulated to play into the social, cultural, and/or political narrative of the consumer, and quickly spread to many others with similar ideologies. The efficacy of this spread was frighteningly evident in the 2016 election cycle when fake news engagements rapidly increased and eventually surpassed real news engagements on Facebook.[3]

2) Recommendations

It should not necessarily be the goal to break the echo chamber effect; these are environments that are generated by users out of a preference. It is also unlikely that social media organizations would have a great interest in disrupting this model to any great degree as these curated solutions are beneficial for advertising.

What should be addressed is assisting consumers in identifying when fake news has been injected into their environment. Using standards-based evaluation, a user could be provided some notification, rating, or criteria that would inform him or her that the item they are reading and thinking of sharing is fake news. In effect, this helps to inoculate the public without causing major disruption to the framework of these sites.

3) Further Resources

A very apt view of the spread of fake news from the viewpoint of an epidemiologist can be found here: Kucharski, A. <u>Post-truth: Study epidemiology of fake news</u>. Nature volume 540, issue 7634 (2016), page 525

An individual built an app for Facebook that performed this kind of notification for users until it was banned: Hatmaker, T. Facebook blocks links to B.S. Detector, fake news warning plugin. TechCrunch, 12/2/2016

IV. BLEND AUTONOMOUS ANALYSIS WITH HUMAN-DRIVEN PROCESS TO TACKLE THE LARGE SCOPE OF THIS ISSUE

A. Issue: Automating any aspect of news purveyor evaluation has moral, bias, and functional risks.

1) Background

The application of a standard, due to the breadth and depth of this issue, must have some level of automation. Approaching this issue delicately and systematically will be of the utmost importance in the success of such a solution. The question arises as to where and when automation should end and human interaction begin. As with anything, technology is a tool, and the ethics of that tool lay only in application. Systems and theories have been developed regarding how such a system might function.

2) Recommendations

It is an unrealistic expectation that a rating system should attempt to review every piece of news media produced on the internet. However, the goal of this system is not to evaluate all news, but to establish a systematic development of a reputation rating. This can be performed through spot-checking of reasonable sample sets on a regular basis.

Spot checking should involve randomized sampling of news articles from purveyors. They should also be designed such that the rating window moves with time, allowing for improvements (or reductions) in ratings in reasonable amounts of time. seen in Facebook's algorithms [16], the solutions themselves can institute bias if proper controls are not in place.

3) Further Resources

A study in several automatic detection methods informs many of the automation claims made here. Conroy, N., Rubin, V., Chen, Y. <u>Automatic deception detection: Methods for</u> <u>finding fake news</u>. Proceedings of the Association for Information Science and Technology, 52 v1 (2015), 1-4.

Additional concepts and methods for approaching this solution: Woolf, N. <u>How to solve Facebook's fake news</u> problem: experts pitch their ideas. The Guardian, 11/29/2016.

B. Issue: The volume of news media is immense; rating it is an unrealistic task.



This spot checking should be performed by both human and autonomous solutions. Autonomous solutions will be especially useful in generating ratings for the proliferation of single articles as they are posted in multiple outlets.

It is also quite possible to build a solution that allows for the automation of some degree of fact checking and bias detection through a number of word and content analysis algorithms using a linguistic and network approach.[4]

A linguistic approach, as the name suggests, analyzes the language used through a variety of methods in combination with each other. These methods include building aggregate data sets from word usage, syntax analysis, semantic analysis, rhetorical structure and discourse analysis, and classification of specific word sets. [4]

A network approach uses the very idea that Internet-based information exists as a network of information. This method examines how data is linked, proximity to other data, and social network behavior. [4]

These methods are described in great detail in the paper <u>Automatic deception detection: Methods for finding fake news</u>, linked below in the *Further Resources* section. The research presented in this paper provides technical foundation upon which an automated solution could be designed and built.

It is still recommended that the employment of such tools and methods maintain a human-based review barrier. As was One of the most well-known fact-checking websites, Snopes, typically releases around 10 fact checks on news stories per day. Politifact, another fact-checking site that specializes in politics, releases around 5 fact checks on individual statements per day. Meanwhile, the Associated Press releases approximately 2,000 stories per day.

It is clear from these numbers that the vast majority of news will go un-checked. It is also clear that major fact-checking organizations with the resources and expertise to seemingly do so are making no attempt to fact-check all news. This is not a condemnation, but merely an observation. It is for good reason that they do not; this is the job of news purveyors, not third parties. Snopes and Politifact focus on the most egregious, the most salacious, and the most damaging news stories.

It should be noted that since Snopes, Politifact, and others focus in on these specific and controversial events, they are cherry-picking the stories and statements they will focus on. While that model is sufficient for what they are trying to achieve, it is not sufficient for building a reputation rating system of news purveyors.

2) Recommendations

The points made here hopefully elucidate the futility of attempting to fact check all news. It should also be clear that the methods that other fact-checking groups employ are not appropriate for building a standardized rating reputation. Their methods employ the following:

- 1. Non-random groups
- 2. Researcher-selected criteria
- 3. Non-representative sample sizes

An approach should be developed to produce regular samples of purveyors that can be representative and random. This spot-checking of news purveyors would be used to build the reputation rating system that would inform consumers on the credibility of the site via statistical analysis.

Further, this should be a moving average to both incentivize and realize changes to purveyor's behavior. A purveyor that works to change their editorial direction should not be forced to perpetually carry the burden of their past performance indefinitely. A one-year window might be a reasonable consideration

3) Further Resources

A paper that discusses the effect that satirical news sources, such as The Daily Show, have had on journalism. While tangential, it does show the effect that these extrainstitutional entities can have: Borden, S. and Tew, C. The Role of Journalist and the Performance of Journalism: Ethical Lessons From "Fake" News (Seriously). Journal of Mass Media Ethics, volume 22, issue 4 (2007), pages 300 =314

V. WORK WITH INDUSTRY TO ADOPT, IMPLEMENT, AND IMPROVE THIS SOLUTION

A. Issue: Creation of a standard and solution will be meaningless without industry cooperation.

1) Background

News on the Internet is found through a very small number of solutions relative to the scale of information available. Just three companies account for 97.5% of Internet searches (comScore, 2/2016): Google, Microsoft, and Yahoo. Google, in particular, accounts for over 60%.[5]

Fake news extends well beyond the simple search aspect of these portals. Social media, notably Facebook and Twitter, are significant hubs of fake news propagation. In the final months of the 2016 presidential election, the top twenty mainstream news posts had 7.3 million shares, reactions, and comments; the top twenty fake news posts had 8.7 million.[3]

Industry interest in a solution to the problem of fake news is high. Both Facebook and Google are attempting different solutions to try to curb the problem. Google has begun to include Snopes.com fact checks on search results for known fake news stories. Facebook has been working to block fake news content. What is clear is that the industry lacks standardization and consistency.

2) Recommendations

It is recommended that industry engagement in this solution be a foremost priority. This engagement should extend into the creation and application of the standard. Allowing the various Internet companies to become part of the solution will enhance engagement, cooperation, and success of the deployment. Such engagement would additionally create a positive feedback loop that will both spread adoption and improve the standard through feedback and development.

Further, the industry may be a source of considerable

Standard is Implemented by Industry The Virtuous Cycle of Active Engagement Open Standard is Updated be a source of considerable resources that could aid in the standard's deployment. This could take the form of funding an NGO, a grant for a pilot program, organizational resources, industry insight, or any other number of possibilities.

It must be stated that any appearance of ownership or overt leadership in the implementation of this solution could have a tarnishing effect on its success. For optimal adoption, this solution must appear bias-free and not subject to any form of special interest. To that end, participation by a large variety of companies and groups is as important, if not more so, than participation of one or two of the major players.

3) Further Resources

Facebook engagement statistics and many additional revealing observations about fake news during the 2016 election cycle can be found here: Silverman, C. <u>This Analysis</u> <u>Shows How Viral Fake Election News Stories Outperformed</u> <u>Real News On Facebook</u>. BuzzFeedNews, 2016.

B. Issue: Fake news is demonstrably attractive to viewers; industry will want to continue providing what their viewers desire.

1) Background

Fake news has not spread by any unusual or magical means; it is simply enticing to viewers. Often, it tends towards controversial, salacious, and provocative content. Fake news is designed to get viewers to click and share by its very nature.

For this reason, fake news is a veritable gold mine for content purveyors. Ad dollars are driven by views, clicks, and

visitors; click-bait headlines combined with fake news drive these metrics powerfully. As has been shown, these fake news stories will outperform their real news topical brethren.[3]

The ad-based economy of most news outlets is faced with a dilemma: while fake news brings in ad dollars, it also tarnishes the purveyor. Some purveyors may be hard-pressed to survive without the revenue generated by click-bait and fake news. As such, they would surely be recalcitrant in the implementation of a ratings system effectively designed to condemn their financial base.

2) Recommendations

It is recommended that the approach be to begin the implementation standard in the institutions where it is perhaps least needed: mainstream news purveyors. The objective is to develop the trust, experience, and societal momentum that will effectively pull the rest of the market into acceptance. This effect was observed in the influence that satire news shows had on mainstream media. Effectively, this is a utilization of peer pressure.[6]

Work to secure cooperation from major mainstream news institutions, such as *The New York Times, The Washington Post, CNN, NPR, Politico, BuzzFeedNews, The Huffington Post,* and the *Wall Street Journal.* In discussions with members of some of these purveyors, it is clear that there is interest in this system, or at least no outright opposition.

Once the standard becomes established, it will apply pressure on other purveyors to become part of the process. Ultimately, the goal should be to work towards creating solidarity in the industry around this issue and system. Social and financial pressures may become a part of this, but ideally it could be seen as an ethical and moral imperative. As such, motivations for implementation could begin to transcend financial barriers.

3) Further Resources

A <u>panel presented by the University of Pittsburgh</u> captures many of the thoughts and ideas of mainstream media on the topic of fake news.

VI. PROVIDE THE PUBLIC AN EASY-TO-UNDERSTAND RATING OF NEWS PURVEYORS

A. Issue: People are demonstrably poor at detecting fake news.

1) Background

Fake news plays on many personal narratives that people of similar interest are drawn to. A negative (and fake) story about the latest Republican candidate may confirm the biases of a liberal individual and vice versa. These confirmation biases, ideas that appear to confirm what we are already inclined to believe, are one reason why fake news can be so successful in the relatively consequence-free deployment mechanism provided by the Internet.[7] Further, studies show that humans are exceptionally bad at determining fact from fiction in these contexts. A recent study of 7,300 middle school, high school, and college students found that they failed upwards of 93% of the time.[8]

There is also the assumption that people should somehow know, intrinsically, that they should be fact checking what they are reading online. Social media often produce echo chambers, reinforcing what could be a fringe belief and making those beliefs appear common and universal. There is no fundamental reason that people should disbelieve – or at least question – what they are reading in their news feeds.

2) Recommendations

This is the basis for existing consumer protection programs. The average person is not expected to know how to detect a legitimate business from an illegitimate business; groups like the Better Business Bureau (BBB) and Angie's List exist to fill that knowledge gap.

This solution should build an easy way to help the public begin to differentiate between real news and fake news purveyors. Borrowing from the aforementioned consumer protection programs, grading purveyors in an A-F system would provide a highly intuitive method for communicating the reputation of a news source. It would also enable comparison between sources and thus competition. If news purveyors compete for positive reputations based on this solution's criteria, the industry as a whole will trend towards a more factually accurate and unbiased disposition.

On the question of satirical news sites, a special rating of S could be used. This could aid in reducing the oftenembarrassing event of sharing a satirical news story as if it were real.

3) Further Resources

The aforementioned Stanford study is highly informative on this topic and can be found here: Stanford Historic Education Group. <u>Evaluating Information: The Cornerstone of</u> <u>Civic Online Reasoning</u>. Stanford University, 2016.

B. Issue: Misinformation presented to the electorate by news purveyors results in increasing partisan divides. 1) Background

"It ain't what you don't know that gets

you into trouble. It's what you know for sure that just ain't so."

-Mark Twain

The increasing level of partisan politics barely needs repeating. Senate rules have changed to minimize the power of minority parties, congressional gridlock has resulted in multiple governmental shutdowns, state voting laws are being found unconstitutional, gerrymandering is before the supreme court, appointees have become highly politicized; such examples could be cited at great length. All of these issues are symptoms of a misinformed public.

The public is generally not uninformed; rather they are misinformed.[9] This is a key distinction, as it changes how individuals deal with new information. An uninformed person, when presented with new information, will use that new information to form an opinion or understanding. However, a misinformed person will tend to reject that new information when it contradicts what he or she already "knows." Perhaps what is more concerning is that, in some cases, when confronted with correct information, a person might actually strengthen his/her previously held misconceptions[10]

It should not be assumed that the suggested actions presented here cannot assist to re-inform a misinformed individual. In fact, it has been shown that this is possible, albeit requiring more effort. The key takeaway is to understand the positive feedback loop that continuallypresented misinformation has on the public, and to understand why it has such a partisan effect.

2) Recommendations

This standard will seek to provide corrective pressures on the overwhelming body of misinformation that is presently assaulting nearly every form of information dissemination on the Internet. This corrective pressure will rely fundamentally on consistent factual accuracy when evaluating news purveyors. Any errors in this review will compound the existing issues of misinformation.

Repeated and consistent diligence towards these ends will be required. It is through these actions that the considerable struggle to correct the relative sea of misinformation will be successful.

3) Further Resources

A summary of some of the works cited here that also places these issues into current events can be found here: Pulta, A. <u>Trump Supporters Appear To Be Misinformed</u>, Not <u>Uninformed</u>, FiveThirtyEight.com, 1/7/2016

C. Issue: Civil political discourse is rapidly deteriorating.

1) Background

There has been a rapid deterioration in the relationships between various organizations and groups in recent years. Gridlock in the Federal Government has reached levels where actions have been taken to further marginalize minority parties.[11] Tensions between the White House and the Press have resulted in unprecedented exclusions from press briefings. [12] Significant political policy has been formed on the basis of fake news.[13] All of these issues, while not due solely to fake news, are exacerbated by it.

Town halls are erupting in anger, protest, and even violence.[14] Politicians and crowds alike are heard quoting fake news stories as if they were true.[15] A huge disconnect is developing and causing a degeneration in the political process.

2) Recommendations

Developing this solution should strive greatly to root out bias while seeking factual accuracy. Safeguards must be in place to ensure that human bias does not wend its way into any processes implemented.

To that end, it is recommended that multiple layers of review are in place to provide proof against these kinds of issues. An organization enforcing this standard will be subject to extreme scrutiny; it should expect any mistakes it makes to be zealously trumpeted by the wronged party. The standards by which this solution would utilize and apply must develop a reputation of their own. As a potential institution of truthfulness, that reputation will be difficult to build and easy to tarnish.

3) Further Resources

Tweets sent by president Trump can often be very illuminating as to the height of this problem: @realDonaldTrump

This article by *The New York Times* captures a recent flareup of this issue: Davis, J. and Grynbaum, M. <u>Trump Intensifies</u> <u>His Attacks on Journalists and Condemns F.B.I. 'Leakers'</u>. The New York Times, 2/24/2017

Additionally, hostile crowds are becoming almost common at political town halls: Snell, K., Schwartzman, P. and Weigel, D. <u>Swarming crowds and hostile questions are the new normal</u> <u>at GOP town halls</u>. The Washington Post, 2/10/2017

The significant disparity between voters and their politicians has been erupting in town halls, especially when invoking fake news: Bradner, E. <u>'Death panel' disputes erupt at</u> Florida GOP congressman's town hall. CNN.com, 2/11/2017

CONCLUSION

Others have produced research that detail the technical approaches to algorithmically determining the "truthfulness" of online text-based media. Notably, the paper "Automatic deception detection: Methods for finding fake news" [4] provides many of these technical details. What has not been performed is an industry and consumer approach that can use these technical ideas to produce a useful construct to combat the rise of fake news.

Many challenges face such an undertaking. It will come under intense scrutiny; it must be open and transparent. It will provide critical information for consumers; it must be easy for consumers to understand and easy for industry to implement. This undertaking will tackle an immense amount of complex data; it must be efficient and effective.

These challenges, and many more, are not insurmountable, and the fruit of success will be immense. This idea serves only for the betterment of the public good; it aims to restore a civility in public discourse that is presently waning. Any approach to implement this must keep this issue, goal, and responsibility in constant awareness.

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REFERENCES

- A. D. Holan. (2016). 2016 Lie of the Year: Fake news. Available: http://www.politifact.com/truth-o-meter/article/2016/dec/13/2016-lieyear-fake-news/
- [2] M. Del Vicario et al., "The spreading of misinformation online," Proceedings of the National Academy of Sciences, vol. 113, no. 3, pp. 554-559, January 19, 2016 2016.
- [3] C. Silverman. (2016). This Analysis Shows How Viral Fake Election News Stories Outperformed Real News On Facebook. Available: <u>https://www.buzzfeed.com/craigsilverman/viral-fake-election-news-outperformed-real-news-on-facebook?utm_term=.mjdlWOA72#.tjZd9lM2W</u>
- [4] N. J. Conroy, V. L. Rubin, and Y. Chen, "Automatic deception detection: Methods for finding fake news," *Proceedings of the Association for Information Science and Technology*, vol. 52, no. 1, pp. 1-4, 2015.
- [5] A. Lella. (2016). comScore Releases February 2016 U.S. Desktop Search Engine Rankings. Available: <u>https://www.comscore.com/Insights/Rankings/comScore-Releases-February-2016-US-Desktop-Search-Engine-Rankings</u>
- [6] S. L. Borden and C. Tew, "The Role of Journalist and the Performance of Journalism: Ethical Lessons From "Fake" News (Seriously)," *Journal* of Mass Media Ethics, vol. 22, no. 4, pp. 300-314, 2007/10/29 2007.
- [7] R. Marchi, "With Facebook, Blogs, and Fake News, Teens Reject Journalistic "Objectivity"," *Journal of Communication Inquiry*, vol. 36, no. 3, pp. 246-262, 2012/07/01 2012.
- [8] Stanford Historic Education Group, "Evaluating Information: The Cornerstone of Civic Online Reasoning," Stanford University, Executive Summary 2016.

- [9] J. H. Kuklinski, P. J. Quirk, J. Jerit, D. Schwieder, and R. F. Rich, "Misinformation and the Currency of Democratic Citizenship," *The Journal of Politics*, vol. 62, no. 3, pp. 790-816, 2000.
- [10] B. Nyhan and J. Reifler, "When corrections fail: The persistence of political misperceptions," *Political Behavior*, vol. 32, no. 2, pp. 303-330, 2010.
- [11] @realDonaldTrump, ed. Twitter, 2017.
- [12] J. H. G. Davis, Michael M. (2017). Trump Intensifies His Attacks on Journalists and Condemns F.B.I. 'Leakers'. Available: <u>https://www.nytimes.com/2017/02/24/us/politics/white-house-sean-spicer-briefing.html</u>
- [13] A. Fram. (2015). John Boehner calls for investigation into whether Planned Parenthood is selling organs. Available: <u>http://uk.businessinsider.com/john-boehner-calls-for-planned-parenthood-investigation-2015-7?r=US&IR=T</u>
- [14] K. S. Snell, Paul; Friess, Steve; Weigel, David. (2017). Swarming crowds and hostile questions are the new normal at GOP town halls. Available: <u>https://www.washingtonpost.com/powerpost/swarmingcrowds-and-hostile-questions-are-the-new-normal-at-gop-townhalls/2017/02/10/376ddf7c-efcc-11e6-b4ffac2cf509efe5 story.html?utm term=.dd7c4f04b94b</u>
- [15] E. Bradner. (2017). 'Death panel' disputes erupt at Florida GOP congressman's town hall. Available: <u>http://www.cnn.com/2017/02/11/politics/death-panel-florida-gopcongressman/</u>
- [16] O. Solon. (2016). 'In firing human editors, Facebook has lost the fight against fake news Available: <u>https://www.theguardian.com/technology/2016/aug/29/facebook-</u> <u>trending-news-editors-fake-news-stories</u>