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The Contemporary Disinformation Ecosystem: Impact and Solutions

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Declaration

I hereby declare that no portion of the work referred to in this thesis has been submitted in support of an application for another degree, or qualification thereof, or for any other university or institute of learning.

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/ Benjamin Goings

Abstract

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This paper is intended to evaluate the contemporary disinformation landscape, what forces drive its impact and what can be done to foster a healthier, more ethical media ecosystem. The paper evaluates available news articles, reports and studies on disinformation, trust in the media industry, media literacy and social media, primarily from 2016 to 2018. The studies that have attempted to measure disinformation are shown to be a useful guide, although, it is still difficult to determine the extent of the impact disinformation continues to have on Western elections. Some evidence suggests disinformation disseminating from Russia and private groups or individuals have altered election outcomes, although it is unlikely, yet possible, that disinformation by itself can force an election outcome. Next, the paper analyzes the hyper-partisan media environment that drives low-quality information and the negative impact of mainstream media sensationalism. Finally, the paper addresses some possible solutions including media literacy training, collaborative investigative journalism, transparency and fact-checking.

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1. Introduction

The threat that disinformation and misinformation pose to any liberal democratic society is that it can blur the lines between truth and fiction. If amplified to an extent that it changes belief and behavior, a population can be at greater risk of illiberal or totalitarian rule. As Hannah Arendt points out in her 1951 book, *The Origins of Totalitarianism*: "The ideal subject of totalitarian rule is not the convinced Nazi or the convinced Communist, but people for whom the distinction between fact and fiction (i.e., the reality of experience) and the distinction between true and false (i.e., the standards of thought) no longer exist" (Arendt, 474). "Black Lives Matter 'Thugs' Blocked Emergency Crews From Reaching Hurricane Victims," (Evon) "Immigrants Arrested for Starting California Wildfires," (MacGuill) and "Palestinians Recognise Texas as Part of Mexico," (Mikkelson) were among some of the most widely spread, politically-oriented false stories of 2017 as listed on Snopes.com. Fake news, as it is commonly known, is largely disseminated through social media, taking advantage of platforms' robust online marketing tools, and ability to spread viral, shareable content. Fake news can be defined as both misinformation and disinformation and is disseminated for a variety of purposes, such as ideological political gain, personal profit or to further state-backed geopolitical interests. To a certain extent, evidence suggests that people can be influenced by the amplification that social media provides, and an ideal platform for disinformation to thrive, divide, convince and confuse.[1]

In a post-truth era, to combat the disinformation threats and to rebuild trust, journalism and media experts have proposed a variety of techniques for the news media to utilize, including promoting greater transparency, media literacy education, and aggressive collaborative and investigative journalism. Demand for more in-depth journalism could reinvigorate the industry and produce tangible results for citizens. In an age post-truth, this paper seeks to explore the currently available evidence

[1] This paper does not intend to address if disinformation determined the outcome of the 2016 US election.

about the disinformation threat, the specific role disinformation plays in the digital landscape, the state and private forces driving it online and what solutions exist to build trust, create transparency, inhibit disinformation, and aide in building an informed populace. The focus is primarily placed on disinformation prevalent in the United States but uses cases and comparisons to the German disinformation landscape, which are relevant to the discussion.

2. Disinformation in the Post-Truth Age

In an era of information warfare, disinformation, election manipulation and hyper-partisan politics, the phrase post-truth became a way to describe the current state of discourse. Post-truth was named the international word of the year by Oxford Dictionaries in 2016, which defined the word as "relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief." Quoted in a 2016 article by The Guardian, the president of Oxford Dictionaries offered an explanation in the context of the current media landscape. "Fuelled by the rise of social media as a news source and a growing distrust of facts offered up by the establishment, post-truth as a concept has been finding its linguistic footing for some time," he said (Flood). The threat of disinformation is a major factor of the post-truth age, as reported in a 2018 RAND brief. It also names social media and misleading or biased information, in addition to disinformation, as elements in what the brief broadly calls "Truth Decay," used similarly to "post-truth" (Kavanagh and Rich). Social media have made mass-manipulation by disinformation possible and are used as a tool to sow confusion and uncertainty in a growingly complex political and media environment. The results are alarming: opinions can be influenced to serve state interests, foreign and domestic, and use partisan politics to sow conflict through organizing on social media.

To sufficiently understand the problem that disinformation and misinformation poses, it is important to define the terms. According to a guide published by John Hopkins University, misinformation is: “the action of misinforming or condition of being misinformed...it differs from disinformation in that it is ‘intention neutral’: it isn’t deliberate, it's just wrong or mistaken.” In contrast, “disinformation refers to disseminating deliberately false information, especially when supplied by a government or its agent to a foreign power or on the media with the intention of influencing policies of those who receive it” (“Information And Its Counterfeits: Propaganda, Misinformation And Disinformation”). For the purpose of analyzing the background and impact of the two, these definitions suffice.

Since the explosive election of Donald Trump and the disinformation campaigns by the Kremlin-linked Internet Research Agency, the rise of widespread disinformation has captured the attention of politicians, journalists, and citizens. Easily spread through social media, disinformation is perpetrated by private individuals and national governments to spread discontent and geopolitical aims, spread propaganda and promote special interests. Free media in the context of a liberal democracy, often referred to as the Fourth Estate, is expected to play a key role in democracy by preventing politicians from abusing their power and help curate an educated public. In the United States, the confidence and trust in this vital institution to report fully, accurately and fairly has been fluctuating in recent years and is deeply divided on partisan lines. In 2016, Americans’ trust in mass media dropped to an all-time low in Gallup polling history; only 32 percent reporting "a great deal" or "a fair amount" of trust (Swift). Leading the election year drop was Republicans’ opinion of the mass media, dropping to 14 percent from 32 percent. The same year, Americans’ trust of mass media a “great deal” or a “fair amount” declined to 32 percent from 40 percent the previous year, a continuation of a trend of “slow and

steady" decline since Gallup began conducting the poll in 1972. Gallup reports that Americans' trust hit a high-point of 72 percent in 1976, attributing the trust to high confidence in the investigative reporting done on the Watergate scandal and during the Vietnam War. In 2017, the same poll administered by Gallup found that confidence stabilized, but at the cost of further partisan polarization. Fueled almost entirely by renewed trust among Democrats, overall opinion returned to pre-election levels reaching 41 percent while Republicans' opinion remained at a stagnant 14 percent. Gallup attributes Democratic confidence to perceived ability to act as a watchdog over Donald Trump's presidency (Swift, "Democrats' Confidence in Mass Media Rises Sharply From 2016"). In addition, a 2017 report by Reuters Institute for the Study of Journalism showed only 38 percent of Americans trust establishment media to present accurate news (Newman et al., 103). At least one part of the present division of opinion about mainstream news could be a result of accusatory and often false statements made by populist politicians, such as declaring all mainstream media and associated pundits "fake news"(Greenberg et al.). Such statements could be interpreted as a political tactic to shut down criticism and foster divisiveness, the US President Donald Trump is one example. Fake news used as political rhetoric contributes to a post-truth media environment, masks the real disinformation problem, and creates additional barriers for journalism educators. "I am discouraged," said Meredith O'Brien, a journalism professor at Northeastern University, "What do I tell my students as they prepare to be journalists when there are forces trying to sully the very notion that journalism is truth-telling?" ("A Journalism Educator Wonders: How Can I Teach Students How to Maintain Their Credibility?"). Disinformation can undermine a democratic country's political and media environment, and if targeted correctly, can damage the reputation of the news media. Analyzing

this environment and what forces contribute to the degradation of an agreed upon fact-based reality is a vital part of addressing how news media can restore trust in its institutions.

2.1. State-Linked Disinformation

2.1.1. Context and Background

To effectively examine the contemporary use of disinformation one must look at its historical origin. In the 1986 book Propaganda and Persuasion by Garth Jowett, the origin is described and the definition is clarified further: "Disinformation is usually considered black propaganda ["propaganda purporting to come from an enemy's own sources" (Oxford Dictionary)] because it is covert and uses false information. In fact, the word disinformation is a cognate for the Russian dezinformatsia, taken from the name of a division of the KGB devoted to black propaganda….disinformation is made up of news stories deliberately designed to weaken adversaries and planted in newspapers by journalists who are actually secret agents of a foreign country. The stories are passed off as real and from credible sources" (Jowett and O'Donnell, 52-53). In the context of an era that some are calling "The New Cold War," disinformation is an important cold-war technique (Glasser). "A relatively high percentage of secret agents are journalists...There are newspapers around the world penetrated by the Communist Intelligence services," said Ladislav Bittmann, a former deputy chief of the Disinformation Department of the Czechoslovak Intelligence Service, during his testimony to the House Intelligence Committee of US Congress in 1980 (Jowett, and O'Donnell, 53). Given the cold-war historical record, there is historical precedence for the existence of targeted, state-sanctioned, information warfare across nations vying for global hegemony. The dominant contemporary discourse surrounding disinformation is largely confined to alleged Russian influence on Western free press and

attempts to sow confusion and division in the European Union and the United States through hired influencers. In 2015, The New York Times reported about a shadowy organization based in St. Petersburg with ties to the Russian government called "The Internet Research Agency (IRA)," (Chen) although the first report about the agency came from Russian publication Novaya Gazeta (Garmazhapova). The so-called "Trolls" are hired influencers that create social media posts, write misleading or hyper-partisan articles and attempt to inflame tensions among a target group with the goal of promoting or echoing official Kremlin policy. According to Robert Muller's indictment of 13 Russians, the IRA, referred to as "The Organization," given its record of name change, receives a monthly budget of over 1.269 million US dollars (Alvarez and Hosking). As reported by The New York Times, IRA messages were spread throughout social media leading up to the election, content which reached 126 million people. Facebook admitted that 80,000 posts linked to the IRA were posted on the platform which reached 29 million people, and was spread further by likes and shares (Isaac and Wakabayashi). The agency's ties to the Russian government are complicated and not fully known. However, US intelligence assessed that attempts to influence the US electorate received support from the "highest levels" of the Russian government. The Russian government denies the accusation (Kirby). The man who allegedly finances the IRA, Yevgeny Prigozhin, is a member of Putin's inner circle and according to Russian anti-corruption activists, "He can fulfill any task for Putin, ranging from fighting the opposition to sending mercenaries to Syria" (MacFarquhar). According to Adrian Chen, the author of the Internet Research Agency report for The New York Times, the trolls originally worked domestically to spread a pro-Kremlin agenda. The intention was to create a post-truth environment in Russia, a tactic which eventually spread to be used on the US electorate. Anti-Kremlin protests served as a tactical testing ground for the disinformation

operations by drowning out opposition hashtags with pro-Kremlin ones which were promoted by trolls and bots.

For the sake of objectivity, it is important to note as Glenn Greenwald, an investigative journalist at The Intercept points out, the existence of a case of disinformation prolonged by the Russian state does not mean all perceived threat cases actually exist, or that disinformation is only perpetuated by a single country. Greenwald, who called the hype surrounding the Russian threat "beyond all measure of reason," lists instances where mainstream news outlets, due to lack of evidence, re-reported on news stories that claimed Russian interference in various Western elections. As a result, Greenwald calls for the "greatest skepticism" when analyzing foreign threats ("Dutch Official Admits Lying About Meeting With Putin: Is Fake News Used by Russia or About Russia?"). Since investigative journalists intend to critique power structures and holding powerful politicians accountable, one could reasonably suggest that the objective of journalism will clash with an intelligence and military establishment whose sole purpose is to advance and protect the political and economic interests of the state. Furthermore, when identifying cases of disinformation, for the purposes of accuracy and credibility, it is critically important to observe strict editorial standards to denote what content can be considered disinformation. An egregious case of careless reporting occurred when the Washington Post reported that a website called PropOrNot had identified two hundred websites acting as Russian propaganda. PropOrNot, an anonymous organization, was cited as an "expert" organization even though the source was highly secretive. The Intercept noted that the report did not cite one verifiable source, and the funding of the organization is unknown (Norton and Greenwald). Chen also wrote a criticism of the Washington Post article, citing the methodology used in determining "Russian Propaganda" included any outlet that criticized "The United States, Barack Obama,

Clinton, the European Union, Angela Merkel, NATO, [etc]" ("The Propaganda About Russian Propaganda"). Objective observers must be careful not to confuse criticism with promoting disinformation, especially since misinterpretations can further degrade the quality of reporting, which lacks an investigative edge, and could even be classified as misinformation itself. Perhaps, one could suggest that hyper-partisan actors in media and politics contribute to a polarized media landscape, but it is disingenuous to suggest they promote foreign state actors, unless significant evidence from a credible, verifiable source can be presented, or if the actors are commonly known to be funded by state actors. Furthermore, the existence of social media manipulation, although not necessarily through disinformation, should be understood in a worldwide context, one that spans further than Russia's influence on the west. To provide context, one must note the extent to which any government uses social media manipulation to their advantage, including democratic states. A 2017 project from Oxford University shows how governments use "Troops, Trolls and Troublemakers" to direct public opinion. Spanning 28 countries, the research sample found that authoritarian regimes mostly use the government directly to target their domestic population with social media, while in democratic states, political parties are more likely to engage in social media manipulation, although state manipulation was also prevalent. The study lists a number of techniques that are currently in use such as: writing social media comments, targeting individuals, and using fake accounts to mask identity. For example, a government could secretly harass users that do not agree with the official government opinion or post pro-government statements that human or automated bots can then amplify. According to Table 1 of the report, democratic governments that engage in these tactics include Germany, the United States, Poland, and South Korea. It should be noted that private companies are often used to mask the intention of governments, for example, the report notes that the "Internet Research

Agency... is known to coordinate some of the Kremlin's social media campaigns" (Bradshaw and Howard, 13-16). In addition to global context, to fully understand how contemporary disinformation functions today one must look to analyze the digital environment that can exacerbate disinformation.

2.1.2 The Disinformation and Social Media Landscape

Social media is arguably the best platform for mass-manipulation ever devised. The danger of disinformation is not only in its existence but how easily it is spread and believed through social media. Rand Waltzman, Senior Information Scientist at the RAND Corporation, warned of the dangers in a testimony to the Senate Armed Services Committee in April 2017. "Technologies have resulted in a qualitatively new landscape of influence operations, persuasion, and, more generally, mass manipulation. The ability to influence is now effectively 'democratized,' since any individual or group can communicate and influence large numbers of others online." Walzman goes on to suggest that manipulation is highly concealable and acts in such a way that it has the potential to disrupt the news media's role in society. Addressing the "Russian Threat," Walzman points out that information operations (IO) are a crucial part of Russian nonmilitary actions. Citing a 2008 glossary of terms published by the Russian military, he suggests the Russian's see IO as a "continuous activity" and in a "perpetual state of information warfare," which differs from the comparatively light usage of IO by the West in general. Walzman concludes that an information cold-war will escalate if Western state actors respond by exposing and countering Russian IO on a large scale since the measures and countermeasures could escalate in an upward cycle ("The Weaponization of Information," 4-6). It should be noted that RAND Corporation is primarily funded by the US military and US

Department of Defense, and as a result, their conclusion is likely to represent the interests of US national security and the national security state (RAND Corporation). Walzman's research on social media influence also led him to believe that US intelligence is not active enough on social media to preserve their own influence. In an op-ed for Time magazine in 2015, he lamented that US intelligence was restricted by laws, which "effectively prohibits our intelligence community from action 'intended to influence United States political processes, public opinion, policies, or media.'" Waltzman quotes Edward Bernays in a positive light who said, "conscious and intelligent manipulation of the organized habits and opinions of the masses is an important element in democratic society," which suggests that establishment intelligence should manipulate the public's beliefs to the advantage of US national security ("Terrorism: The U.S. Is Losing the Social Media War"). Walzman's previous employer, DARPA, denies supporting research that aims to spread disinformation (Gallagher). CENTCOM, one of the private contractors that the US government uses for information intelligence operations, claims the company does not target Facebook, Twitter or any other US websites. The organization claims its information operations were used for online counter-terrorism operations to prevent jihadist propaganda from appearing online in the Middle East (Cobain). Regardless, Walzman's warning about foreign influence is partially valid, given the real-world effects, as previously noted, that Russian influence can have. What can be challenged, however, is the conclusion that an IO "arms-race" is inevitable between Russia and the West. Rather, media reforms could be enacted to combat disinformation, an outcome that is highly desirable if the intended goal is to restore trust and transparency into the news media rather than state manipulation of public opinion.

In addition to "democratization," other changes to the information landscape have enabled disinformation. As Kelly Born of the Madison Initiative writes, information sharing has

become an increasingly socialized process; instead of disseminating from "institutional gatekeepers" information is spread through one's peers potentially producing a social media echo-chamber. These institutional gatekeepers, the mainstream press, while still committed to their editorial standards, face a landscape of competition that was not economically possible before. Other changes in the information landscape allow information, or disinformation, to be personalized and anonymous (Born). Born points out that "bad actors" can "game" the system by creating bots to distribute questionable information while remaining anonymous; a strong advantage for disinformation networks that work for a foreign entity with extensive funding like the IRA. These bots, often controlled remotely by humans, serve to spread dissent, promote conspiracy theories, amplify biased news and divide opinion using channels as simple as hashtags on Twitter. For example, after the Parkland shooting, Russian bots were detected trying to influence opinions and behavior. According to Politifact and the German Marshall Fund, Russia-linked bots spread "crisis actor" and "false flag" conspiracies and promoted disinformation about school shootings (Kruzel). One of the key powers of bots lies in its creators' ability to amplify disinformation through networks of users with larger amounts of followers and connections on social media. When disinformation is shared through trusted influencers in a niche, that message can spread quickly because it's more likely to be trusted. Once a piece of disinformation has penetrated a social media niche, or echo chamber, it will not see much diversity of opinion. The Brookings Institution think-tank pointed out that only 35 percent of American social media users say that their friends and family post a diverse set of viewpoints (Karsten and West). One particularly interesting example of a Russian-linked disinformation campaign was its promotion of "White Helmet" conspiracy theories. According to The Guardian, the White Helmets, or the Syria Civil Defense, is an international volunteer

organization that provides humanitarian support to civilians in the Syrian Civil War. The organization of 3,400 volunteers saved thousands of lives in Syria and was the target of a disinformation campaign to present the organization as a front-group for the anti-Assad rebels or ISIS. Graphika also found evidence and patterns in a Twitter information analysis, showing an overlap between conspiracy users, the US left-wing, pro-Kremlin troll accounts, and Russian media platforms. RT, Sputnik and 21st Century Wire, a conspiracy website, were also found to be the main drivers of Twitter posts relating to the White Helmets. Conspiracy theorists, dressed up as experts or journalists who are quick to denounce Western involvement, proceed to be invited on RT programs to give the Kremlin's perspective credibility (Solon). For example, a video posted on RT's Youtube channel titled, "'They don't care about us': Syrians on White Helmets' true agenda," promoted the false perception that the group was harming the local civilian population and featured an interview with conspiracy theorist Vanessa Beeley who was labeled an "independent researcher." "The more confusion there is, the easier it is to manipulate people," said Samantha Bradshaw, a propaganda researcher at Oxford University (Solon). Sowing confusion by promoting conflicting and conspiratorial theories, in addition to outright manipulation, appears to be a mainstay of the modern disinformation method. If the intended manipulation is successful, citizens may become disinterested given the amount of work it takes to sort out the true information from the false.

US social media platforms have faced scrutiny for not playing a more active role in preventing disinformation on its platforms. In October 2017, Facebook, Google and Twitter executives testified in front of the US Senate Judiciary Subcommittee on Crime and Terrorism for three hours about influence in the 2016 presidential election. "In our investigation, which continues to this day, we have found that foreign actors used fake accounts to place ads on

Facebook and Instagram that reached millions of Americans over a two year period," said Facebook VP Colin Stretch in an opening statement, emphasizing the commitment to combating disinformation ("Facebook, Google and Twitter Executives on Russian Disinformation"). The Twitter official, Sean Edgett, listed a number of alterations based on their investigation, including increased transparency and security. The hearing also discussed post-election activities. "We saw this concerted effort to sow division and discord...we saw a lot of activity directed at fomenting discord about the validity of his election," said Stretch, suggesting disinformation activities are also present during times of general national debate. For the sake of context, a 2017 Pew study showed that in 2016, 44 percent of American adults got their news from social media "sometimes" (26 percent) or "often" (18 percent) (Shearer and Gottfried).

While it is possible Facebook and Twitter will follow through with their "transparency and security" attempts, chasing after Russian influence may prove to be an exceptionally costly and time-consuming project. As for-profit corporations, Facebook and Twitter will only likely attempt to counter Russian influence insofar as it damages the reputation of their platform or as long as governments pressure them. Internal crises appear to be plaguing Facebook's ability to deal with the problem. According to The New York Times, Alex Stamos, the chief information security officer at Facebook, is soon to leave his position over an information disclosure dispute regarding Russian disinformation; his once 120 person team is now three (Perlroth et al.). Allocating significant resources to root out corruption and misuse of the platform, and according to Edgett's testimony, sometimes utilizing up to half of Twitter's engineering department, which does not bode well for the platform's long-term profitability. If state pressure subsides, the incentive to continue with these security measures will be reduced. Furthermore, the army of engineers that social platforms employ do not necessarily share the same values as journalists.

As Courtney Radsch, director of the Committee to Protect Journalists points out, the profit motive is likely to triumph over "upholding journalistic freedom." Radsch warns that as governments use social media corporations to censor content, even with the intention of stopping the spread of misinformation, the potential risk of censoring journalism outweighs the cost, citing abuse concerns. In the foreseeable future, it is unlikely that state-linked actors will discontinue disinformation efforts, and as technology and social media tools become more advanced the problem could be exacerbated, as social platforms and state actors and their partners become locked into a race for influence. Walzman's information "arms-race" would not be strictly limited to state conflict, but a conflict between influential corporations like Facebook, pressured by Western governments, and Kremlin-connected operations like the IRA, competing in a privately-outsourced information struggle. "In the longer term, this is a problem of market power," explains Dipayan Ghosh and Ben Scott, two former Obama advisors, "this demands a more concerted effort to curb the immense concentration of power enjoyed by the largest internet-platform companies." Social platforms' interest in serving the needs of governments will likely supersede the need to effectively reform the information landscape, which could result in a further censorship and authoritarian practices, especially if the cost and pressure increases on the Russian and Western side simultaneously. Tim-Berners Lee, the man credited as the inventor of the World Wide Web, shared a similar concern. "The fact that power is concentrated among so few companies has made it possible to weaponise the web at scale," he said in an article for the World Wide Web Foundation. "The responsibility — *and sometimes burden* — of making these decisions falls on companies that have been built to maximise profit more than to maximise social good" (Lee). While regulation of social media corporations could aide in addressing

monopoly power, solutions that address the underlying weaknesses of the media landscape are more likely to be effective in combating and disrupting disinformation.

2.1.3. The Effectiveness of Disinformation

The effectiveness of disinformation in swaying public opinion or affecting the outcome of elections is a widely debated and controversial topic among experts and journalists. To what degree the current threat of disinformation is exaggerated is difficult to determine given the number of variables. However, a few studies have been conducted to measure the general effectiveness of disinformation and/or misinformation and found nuanced conclusions. A study published in January 2018, titled, "Selective Exposure to Misinformation: Evidence from the consumption of fake news during the 2016 U.S. presidential campaign," outlines the potential impact of fake news using surveys and web browser history. The study analyzes misinformation and not disinformation specifically, but the former can direct and provide content for the latter, so the conclusion of the study is likely applicable for both types of fake news. According to the study, 27.4 percent of Americans, more than 65 million people, visited a fake news website from October 7-November 14, 2016. The majority of fake news consumers were heavily pro-Trump, with 40 percent of supporters visiting a fake website and 6 out of 10 visits to fake websites were from the most conservative 10 percent. It was also found that Facebook was an important distributor of fake news, and its users were more likely to click on it. The researchers specify that their research did not sufficiently analyze social media fake news, given the crux of the study analyzed website visits. The study's conclusion states: "while fake news is unlikely to have changed the outcome of the 2016 election...exposure to it or similarly dubious and inflammatory content can still undermine the quality of public debate, promote misperceptions, foster greater

hostility toward political opponents, and corrode trust in government and journalism" (Guess et al., 12). While the study does not prove that false news or disinformation can change election results, its conclusion suggests that Trump supporters, especially the most conservative Americans, are highly susceptible to fake news and thus possibly disinformation, given that manipulation of partisan groups is highly desirable and has since yielded moderate success. It's important to specify that disinformation can only have the most impact when citizens cannot assess the legitimacy of information online. A study by the Stanford Graduate School of Education showed that even young people who have grown up in the internet age lack the ability to critically evaluate information on social media. For example, only 25 percent of evaluated high school students were able to identify the difference between the real Fox News Twitter account, indicated by a blue checkmark, and a similar account imitating Fox News. To some students, the fake account's inclusion of graphics proved its trustworthiness (Donald). In another evaluation, students were tasked to evaluate minimumwage.com to determine the website's credibility as an authoritative source. Researchers found that 93 percent of University students did not realize the website is run by a conservative think-tank, a fact illuminated by a google search. "Despite their fluency with social media, many students are unaware of basic conventions for indicating verified digital information," said the researchers. The researchers were so dismayed by their results that they said students' lack of critical thinking constituted a "threat to democracy," and cited disinformation as a key threat. (Wineburg et al.).

Another study on fake news' impact attempted to explain why only 77 percent of Obama voters voted for Hillary Clinton, suggesting fake news consumption as an influence. The Ohio State University study draws from a post-election survey from a sample of 1,600 voters but focused on the 585 voters who switched from Obama to Trump. The survey results found Obama

voters that previously saw and believed fake news stories were 3.3 times more likely to defect to the Republican party and vote for Trump. According to the sample, 20 percent of Obama voters believed the following fake news story, "During her time as U.S. Secretary of State, Hillary Clinton approved weapon sales to Islamic jihadists, including ISIS." The study said that when controlling for variables like race, gender, ideology, economic concerns and candidate likeability, the impact of fake news could explain 4 percent of total defections. Given that Clinton lost the election by 0.6 percent of the vote in key swing states, the study concluded that a 4 percent variance is high enough to have impacted the election, given that if Hillary retained a slightly higher percentage of Obama voters, she would have won the Electoral College (Gunther et al., 1-5). The conclusion of the survey study is especially interesting given the control for variables and its focus on a specific subset of the voting populations' reaction to fake news. While causation cannot be conclusively proved, the results imply that fake news could have impacted election outcomes. Fake news' prevalence in swing states is also backed by research from Oxford University that showed 11 out of 16 swing states had above-average levels of "Polarizing and Conspiracy Content," including fake news, unverified Wikileaks content and Russia-related content. The study also found the amount of bad news that was shared in the days before the election outnumbered the amount of professional news. "Many of the swing states getting highly concentrated doses of polarizing content were also among those with large numbers of votes in the Electoral College," concluded the study (Howard et al. "Social Media, News and Political Information during the US Election: Was Polarizing Content Concentrated in Swing States? 1-5). The conclusion that could be drawn from the results of these studies can be that swing voters and highly conservative voters are the most likely to be swayed by fake news, and thus are more likely to be targeted by state disinformation campaigns in an attempt to push

them in a particular direction. If Russian efforts target these citizens to sway votes or at least attempt to "undermine the quality of public debate" and "promote misperceptions," amplifying fake news could at least be a meaningful part of a broader disinformation strategy.

A third study, conducted by Stanford University researchers, reached a nearly opposite conclusion as Ohio State. As a result of a post-election online survey from 1208 respondents, the study found that for fake news to have an effect on vote tallies, it would have to be as persuasive as 36 political TV ads (Allcott and Gentzkow, 20-22). The study does not address the highly-targeted nature of social media disinformation; rather it draws conclusions from a more general sample based on what respondents could remember about a fake news story. The researchers asked respondents if they could recall a specific fake news story and then used control false fake news stories to determine the impact on memory of the actual fake news. The study showed that the average US adult saw and remembered an average of 1.14 fake news articles from the researchers' database of 156 articles. Based on the former's average, the study found the fake news in their database would have only changed votes by hundredths of one percent. However, it should be suggested that for fake news to have an impact it does not necessarily need to be remembered accurately. General degradation of facts, in aggregate, and targeted, concentrated impact is how fake news can persuade voters or degrade information environments without the need to be recalled. The researchers admit the study does not include stories respondents may have read and not remembered or stories that were seen but not read which could have lead to greater impact. The study's respondents were also mostly well-educated, suggesting a lack of even representation, and the study did not control for other variables, such as location, which could make significant differences. In addition, the study does not control for the likelihood that many voters in swing states experienced a higher degree of fake news than on average,

suggesting the average national impact would not necessarily be relevant and too broad of an analysis in a case of much higher and targeted exposure. Fake news and disinformation are not likely to be spread evenly across all demographics and locations, so the study's reliance on generalized averages does not necessarily address the tactics of fake news spreaders and disinformation influencers.

In addition to promoting Russian interests online, it is clear that the attempts to influence actions offline have been moderately successful, and implies possible outcomes that are difficult to study and measure. Graphika, a social media research and analytics firm whose goal is "the mapping of the cyber-social terrain," and claim to function as "cartographers of the 21st century" ("Careers"). The CEO of Graphika, social scientist John Kelly, says that his firm has tracked Russian influence using their mapping and social-relationship platform. "It isn't Astroturfing — they're throwing seeds and fertilizer onto social media," said Kelly to The New York Times. "You want to grow it, and infiltrate it so you can shape it a little bit." Kelly also said the Russian-made accounts interact with people in Facebook groups to influence their behavior, including Bernie Sanders supporters, conspiracy theorists, and white nationalists. "Graphika has tracked thousands of social media accounts whose content closely tracks Russian information operations," he said (Confessore and Wakabayashi). Kelly's warnings are not without real evidence. There are several cases where Russian operatives successfully infiltrated groups and instigated real-world events by masquerading as real Americans, a more aggressive form of disinformation which suggests influence is not only limited to the internet. Although not necessarily related to the 2016 election, the attempts included amplifying domestic social issues. In 2016, the IRA used two of its own Facebook groups, "Stop The Islamization of Texas," and "United Muslims of America," the former with 250,000 followers, the latter with over 300,000,

to create a protest and counter-protest via two separate Facebook events. The two protests were scheduled for the same day, at the same time and at the same location. While the outcome of the attempt was limited, as fewer than 100 protesters showed up to support the two causes, the possibility that foreign actors can persuade and affect real change is a concerning outcome and may degrade the credibility of activists further (Franceschi-Bicchierai). Critical observers could say that limited attendance of such events provides evidence that these tactics are not effective. However, in January 2018, Facebook admitted it found 129 "election events" created by Russian operatives and that 338,300 accounts saw the events, and a total of 62,500 people indicated their interest in attending on the platform's event page (Volz). If influence operations continue to be funded and improve in technological complexity, the recent attempts to organize American citizens could be the first experimental step of what could be possible in the future. One activist who witnessed this first-hand was Micah White, the co-creator of Occupy Wall Street and the author of the 2016 book, The End of Protest, which warned activists against front groups. In a 2017 article, he admitted that in 2016, an organization called "Black Matters" contacted him for an interview to discuss protests, a group that was later found to be an IRA creation and front group (White). After a single interview, White was put off by the strange accent and limited connection. White notes that other fake activist groups, such as "Blacktivist," which garnered about 360,000 followers, were created to spread discontent on social media (Levin). "We are witnessing the advent of social movement warfare: the deployment of social protest as an effective alternative to conventional military conflict," White said. He also described the potential goal of such disinformation-linked activism. "The next step will be the creation of new...contagious social protests in America that are conceived, designed, launched and remotely controlled entirely by foreign governments" (White). In another case, in February 2018 it was

revealed that an American Trump supporter received $500-$1000 from the IRA to build a cage for a person depicted as Hillary Clinton designed to be shown at a 2016 Florida protest. The IRA used its fake page "Being Patriotic" to promote the protest. The citizens who were persuaded by Russian-linked operatives to join their protests often never realized a foreign power was involved and denied the allegations when confronted (O'Sullivan, et al.). Degradation of activist credibility by creating fake social media pages and using them to spread either disinformation or promote protest can be used in conjunction to undermine a sense of truth in American society. While some may dismiss the trolls' impact, Lyudmila Savchuk, a former undercover journalist at the IRA, would warn against it. "These technologies are unbelievably effective," she said. "They [Americans] believed it was their own thoughts, but I saw that those thoughts were formed by the propagandists" (Davlashyan and Titova).

2.1.4. Precarious Disinformation: Germany

It is clear that Russian influencers and human-operated bots intended to disrupt politics and social media in the United States. However, conflicting evidence of Russian activity in other cases, like Germany, perhaps demonstrates the complexity and inconsistency of influence operations. German officials were highly aware of the possibility of disinformation leading up to the 2017 German election. Unexpectedly, experts did not find much evidence of Russian troll influence or attacks, as The New York Times reported in September 2017 with a story titled "German Election Mystery: Why No Russian Meddling?" (Schwirtz). As reported in the article, The Digital Society Institute, based in Berlin, noted that attacks were expected, but didn't "see any verified attacks." A data analytics company, Ripjar, did find some bots on social media websites promoting Russian government official policies, but the impact on the electorate

appeared to be minimal. “It is a very blunt tool that I would assess has very little impact on the world,” The New York Times quoted Ripjar’s director as saying (Schwirtz). John Hopkins University professor of Strategic Studies, Thomas Rid, also expressed his skepticism. “I think one of the risks of the 2016 operation is that we all overestimate how much you can achieve from it and how easy it is,” he said (Schwirtz). As noted in the article, Germans tend to trust their mainstream news, which may explain the lack of impact. The Institute of Journalism of Johannes Gutenberg University Mainz published the results of a large media trust study in January 2018, which supports that conclusion. The study shows that public broadcasters fared the best; 72 percent of respondents thought such broadcasters are “very/rather trustworthy [sehr/eher vertrauenswürdig]” (Schemer, et al., 5) Public broadcasters are followed closely by newspapers, with 66 percent of respondents reporting a similar high level of trust. The report also captured the feelings about the fake news danger, with 74 percent of respondents agreeing that “fake news is a real danger to society” (Schemer, et al., 2-6). An Oxford University study on the bots and fake news during the German election also found that Germans on social media shared four times as much professional news as fake news. “Comparing across countries and over time, we demonstrate that this level of professional news consumption is consistently higher than is the case in the US,” said the study (Neudert, et al., 1). Another study, co-authored by the Institute for Strategic Dialogue and the London School of Economics analyzed “Kremlin, Alt-Right and International Influences” during the German election cycle (Applebaum, et al.). The study outlines what disinformation effort was attempted to influence three German demographics: the far-right, the far-left and the Russian-speaking German community. To reach the conclusion that Russia interfered in the 2017 German elections, the study relies heavily on an analysis of the impact of the Kremlin-funded RT and Sputnik networks on mostly the far-right and Russian-

speaking population. The researchers did conduct some social media analysis and showed the existence of an active bot network with 2,480 accounts "algorithmically determined" to be pro-Kremlin. However, of the 2,480 accounts, only 60 were found to be automated and the posts from the bots were mostly found to be "commercial or pornographic in nature," not political. One documented case of potential influence by the report highlighted a Russian hacker who revealed to the researchers that 15,000 pro-AfD Twitter interactions, such as retweets and posts, cost 2000 euros and would include posts that came from "high quality" bots. However, the impact is difficult to determine and the measurable findings are limited. The report admits that its conclusion and findings are not conclusive, and do not necessarily reflect what it calls the "actual impact of Kremlin influence" on German society (Applebaum, et al., 5-13). The study's limited findings present a rather inadequate case for the existence of a disinformation campaign comportable with the one imposed on the US. The study implies that the influence of biased or propagandistic news like RT and Sputnik, perhaps a component of the Kremlin's propaganda, is proof that Russia interfered in Germany's election. However, the existence of Kremlin state media in Germany does not provide a complete case for proof of an influential disinformation campaign in Germany. "I strongly suspect that RT Deutsch has a trivial effect compared to Russian-speaking Germans watching Russian television," said Ben Nimmo, an RT analyst for the Atlantic Council (Erlanger). In The New York Times article, German Council on Foreign Relations expert Stefan Meister also downplayed the impact of the disinformation from Kremlin-funded news media, but also did not completely rule it out as a component of the broader strategy. "We shouldn't overestimate RT. The main success of the Russians is the link to social media through bots and a network of different sources," he said. The link is "increasingly well organized, with more strategic and explicit links between sources and actors — Russian domestic

media, troll factories, RT, people in social networks and maybe also the security services" (Erlanger). It is more likely and backed by the previously cited experts, that the impact of disinformation in Germany was not as prominent as in the United States, although not completely benign. German citizens' comparative trust in their media institutions is likely a factor that softened the impact of Russian disinformation from influence agencies like the IRA.

3. Private Influence Operations and Hyper-partisan News

While foreign governments can use disinformation to assist geopolitical goals, most nefariously through covert means, but not only governments contribute to a sense of post-truth in a society. In addition, wealthy or ideologically driven individuals, often connected to a specific political party, can use disinformation to divide and confuse. Companies tied to state actors can also use the division that partisan media provides to give credibility to state propaganda. According to J.M. Berger, an expert on extremism on social media, Russian-linked accounts were found to support far-right content that aligns with their objectives, like promoting anti-immigration and white nationalism (Berger, et al.). The impact of hyper-partisan media should be understood in the context of its own ecosystem that may unintentionally amplify covert state actors. Partisan actors in the media landscape are also known to employ private contractors, which is a known tactic documented by the Oxford study on global information operations, the IRA being one of the most well-known for its connection with the Kremlin. However, powerful actors utilizing contractors is not a tactic used exclusively by governments.

In March 2018, it was revealed by a Channel 4 investigative report that a UK data intelligence firm, Cambridge Analytica, engaged in disinformation campaigns to influence behavior or influence elections for whoever is willing to pay for it. The report provided video

evidence that Cambridge Analytica subcontracted its intelligence gathering work through private organizations and obscuring their identity by contracting under a different name to remain untraceable. The company's operations are not limited to sharing the results of "deep digging" as the CEO, Alexander Nix, explains to an undercover journalist masquerading as a potential client, and much more "can or has been done" to influence an election. "These are things that don't necessarily need to be true, as long as they're believed," said Nix, referring to what could be done for a potential electoral client. For example, the company ran the electoral campaign strategy for Uhuru Kenyatta, the incumbent presidential candidate of Kenya, a controversial election where 90 percent of Kenyans reported seeing disinformation about the opposition (Lee, "Q&A On Cambridge Analytica: The Allegations so Far, Explained"). The company also claims to have executed the entire electoral campaign for Donald Trump even inventing his slogans. "We did all the research, all the data, all the analytics, all the targeting, we ran all the digital campaign, the television campaign, and our data informed all the strategy," said managing director Mark Turnbull to the undercover journalist. Nix also admitted the company has used corruption entrapment to discredit political figures ("Revealed: Trump's Election Consultants Filmed Saying They Use Bribes and Sex Workers to Entrap Politicians").

According to The New York Times, Cambridge Analytica is a shell group for a company called SCL Group (Rosenberg, et al.). The SCL Group has a contract with the US State Department "to provide research and analytical support in connection with our mission to counter terrorist propaganda and disinformation overseas," according to the Global Engagement Center, which was created by the Obama Administration in 2016 (Tucker). SCL Group's success stories, like "Data-driven strategy & operations in Ukraine" are openly listed on its website ("Projects"). According to the Channel 4 report, the two companies have been involved in over

200 elections worldwide, including Europe, South America and Africa. The use of SCL Group as a private contractor to combat disinformation in Europe or the Middle East when the company's subsidiaries are spreading disinformation, notably on the behalf of the Trump campaign, is a concerning development. Cambridge Analytica was initially founded with a fifteen million dollar investment from the conservative billionaire, Robert Mercer, who Steve Bannon, editor of Breitbart News, introduced to the company. Bannon also served as the company's vice president, demonstrating the direct connection between Cambridge Analytica and far-right media (Prokop). Despite Cambridge Analytica's apparent dealings with shady intelligence groups which utilize unethical methods, including disinformation, the company boasted that its "methodology has been approved by the UK Ministry of Defence, the US State Department, Sandia and NATO," which can only be viewed on an archive of its website ("Cambridge Analytica: 'Approved Methodology'"). In addition, Cambridge Analytica's alleged tactics could be said to resemble the work of the IRA. "The discussion about Cambridge Analytica working with proxies to inject certain messages into the internet bloodstream or the internet ecosystem that overlaps a lot with what we know about Russia's role in promoting particular messages and diverse messages in the 2016 election," said Brendan Fischer of the Campaign Legal Center in a Channel 4 interview ("Cambridge Analytica: Undercover Secrets of Trump's Data Firm").

While the real impact of private companies such as Cambridge Analytica is debatable, it at least contributes to the disinformation landscape by engaging in unethical and highly secretive tactics which prevent the public from knowing where information about a candidate or government is coming from. The consequences further weaken a credible information landscape, one where perceptions of politicians and the media could be intelligently managed by private firms. Cambridge Analytica and SCL group are an example of private influence that is not

beyond engaging in disinformation for personal profit and demonstrates that disinformation can be utilized by individuals with large amounts of wealth to swing public opinion or target opposition political candidates. If wealthy private forces or political parties can covertly shape the direction of newsworthiness by hiring information operations firms with practices that go beyond digital marketing, disinformation could be propelled into a major influencer and a represents a strategy for actors that wish to replicate these types of operations for profit or ideological gain. In some ways, the case shows private influencers can wield information as a weapon in a way similar to those with state-linked support.

In addition to nefarious and covert actors in the media landscape, news that relies heavily on partisan politics to gain viewers can influence the direction of mainstream news, creating a news environment where disinformation thrives. While disinformation and hyper-partisan media are not inherently the same the two can reinforce each other. It should be noted for clarification, that at what level bias becomes intentionally misleading or false is subjective and inherently difficult to prove conclusively, although, the impact is clear: there are now two distinct sets of facts in the United States. According to a three month Oxford University study that analyzed partisan news consumption on US social media, the lack of trust in traditional news means the alternative news environment has become "fueled by extremist, sensationalist, conspiratorial, masked commentary, fake news and other forms of junk news." The study sought to map the influence of partisan political news and its influencers on social media. The study found that, on Facebook, 95 percent of news that related to the former categories was shared by hard-right groups more than all other groups combined. Furthermore, on Twitter, the "Trump Support Group" shared 95 percent of bad news sites, and made up 55 percent of the total sample. The conspiracy-linked news was shown to be spread by groups from the far-left and far-right but was

mostly associated with the Occupy group. Overall, the study concluded that on both Facebook and Twitter, the hard-right conservatives and Trump-linked groups were by far the most likely to spread hyper-partisan and non-professional news with dubious ethical standards (Narayanan, et al., 1-6). A political and media environment prone to extremism and partisanship is likely to see an increased spread of disinformation if the targets have low-trust in media institutions, lack critical thinking and media literacy skills. It is important to note which alternative media outlets are encouraging this problem. According to a report by the Data & Society Research Institute about media manipulation by extremist groups, including the so-called alt-right, the last decade has seen a rapid increase in hyper-partisan news, mostly on the far-right. The report names Breitbart, The Washington Examiner, Infowars and several others as key outlets for spreading misinformation, rumors and conspiracy content, much of which was highlighted in the Oxford study (Marwick and Lewis, 22-23). The importance of these outlets, or similar ones, in spreading disinformation and/or misinformation is noted in the report's citation of a Buzzfeed News analysis which showed that leading up to the 2016 election, the most popular fake news stories received more Facebook engagement than stories from top news outlets. The analysis determined fake news as either hoax websites or hyper-partisan websites. As the article's graph shows, from August first to election day fake news received 8.7 million engagements (likes, comments, shares) while mainstream news received 7.3 million. The top fake news stories during this time were mostly fake attacks about Hillary Clinton but included: "Pope Francis Shocks World, Endorses Donald Trump for President, Releases Statement" and "Wikileaks CONFIRMS Hillary Sold Weapons to ISIS...Then Drop Another BOMBSHELL! Breaking News." The mainstream news stories during the same time referred to Trump's corruption and defended Clinton, for example, "Trump's History of Corruption Is Mind-Boggling. So Why is Clinton Supposedly the

Corrupt One?" (Silverman). Buzzfeed correctly notes that engagement does not necessarily result in page views for the fake websites, however, it is possible that the headlines alone sufficed for consumers to believe the stories. It is also worth noting that at least some of these fake news stories are not exclusively spread by state-linked actors. Out of the top ten news stories spread before the election, four were authored by Ending the Fed, a website run by a 24-year old man named Ovidiu Drobota, which he ran for personal profit ("24-Year Romanian Runs One of the Top pro-Trump Propaganda Sites").

A common criticism of the Buzzfeed study and other studies that suggest a relatively high fake news impact is the engagements that fake or misleading posts received were tiny compared to total engagements on the platform. Skeptical researchers like Duncan Watts and David Rothschild note in a Columbia Journalism Review article that given the 1.5 billion monthly Facebook users, the articles in the Buzzfeed analysis only account for 0.0006 percent of total Facebook engagement (Watts and Rothschild). This is likely an accurate statistic, however, it is nearly useless in context because the analysis does not account for the highly insulated and targeted nature of the partisan media environment. Total engagement on a given social platform is irrelevant when disinformation can thrive in either relatively small communities or can target a small yet crucial subsection of voters but still retains a high level of engagement among them and never sees verification. This notion is backed by MIT researcher Eugene Yi, whose team mapped partisan division on Twitter. During an interview with VICE News, he showed a revealing graph, color-coded by political views, showing that Trump-supporting Twitter users are a distinct and separate array of dots and paths in relationship to Clinton and Sanders supporters. "Trump supporters are connected and very tightly clustered into their own information world," he said. Li pointed out the most revealing meaning of the graph: where

journalists are located on the media spectrum. Hardly any journalists were shown to be connected with the red Trump array. “On Twitter, we see that there is a separation of where the journalists [are] and who the journalists are following, and no one is really listening or plugged into this Trump supporter graph. This suggests we are missing, fundamentally as a society, some of the voices that led to Trump’s success,” inferred Li (“How Truth Lost Its Meaning In Trump’s America”). For example, if the Washington Post received an extremely high level of engagement on a breaking news story it would account for a certain small percentage of Facebook’s engagement that day. Nonetheless, if the news never reached the consumers locked into the alternative media ecosystem, hard-conservative voters (or swing voters) may never see the content, or if so, it may not be trusted. If alternative media disinformation can be amplified at key moments, either by the mainstream media or by nefarious actors both state and private, it can have a relevant impact regardless of its total percentage of a given social platform’s engagements.

Harvard and MIT researchers have further detailed the role of partisan media ecosystems, emphasizing that it is not technology itself that polarizes. If technology was the cause, the researchers say, the media landscape would appear equally polarized on the left-wing and right-wing of media. Instead, they observed an asymmetric pattern which showed that partisan left outlets were far more connected to the mainstream media than the partisan right. They note that while partisan right-wing news dates back to the 1990’s, the near-total detachment from the traditional media ecosystem is a new development. This created a media system that is heavily divided between the center and the far-right; the latter led by Breitbart, at least during the lead up to the election. The researchers say that far-right media was only able to become influential outside its network after it was able to set the scope of discussion, especially on issues like

immigration (Benkler et al.). A lengthy, detailed study by the same researchers was published in August 2017 by Harvard University which showed that Breitbart and associated websites were able to gain traction from the mainstream news by utilizing disinformation and "by developing plausible narratives and documentation susceptible to negative coverage" (Faris, et al.). That is, the far-right media were able to create content that was compatible with the mainstream media's profit-driven need for controversy. For partisan media, courting the narrative and using objectivity as a credibility driver is just as critical to their amplification as it is to state-connected actors like the IRA. The report gives reasoning as to why the mainstream media is susceptible to manipulation: painting a candidate negatively and highlighting controversy can serve careers, while deep investigations into the origin and motive of information are more difficult (Faris et al., 131). The Data & Society Research Institute's report also a back up the Harvard study's finding. "The mainstream media's predilection for sensationalism, need for constant novelty, and emphasis on profits over civic responsibility made them vulnerable to strategic manipulation," it concluded (Marwick and Lewis, 47). If mainstream news takes the disinformation threat seriously, it should be suggested that ethical responsibility and stricter newsworthy standards should be upheld as a way to combat disinformation and hyper-partisanship online. "Rising to this challenge could usher in a new golden age for the Fourth Estate," said the Harvard researchers (Benkler et al.).

4. Media Literacy, Transparency, Investigative Journalism and Fact-Checking

One of the fundamental questions that need to be answered when attempting to address disinformation is to investigate what the traditional media can do to regain trust in the public. In February 2018, the "committee of experts on quality journalism" published a draft of

recommendations to emphasize important features for the future of journalism. The report calls journalism the "antidote" to "informational chaos" and stresses support for online journalism, namely, collaborative journalism and non-profit journalism based on alternative funding ("Draft recommendation on promoting a favourable environment for quality journalism in the digital age," 1-3). There has been much concern in the news business about the rapid change in technology which disrupted traditional journalism's funding methods. The critically important work from investigative journalists is especially subject to financial questions and concerns. If journalism is reliant on print sales and advertising, expensive investigative projects are likely to be sidelined in favor of more advertiser-friendly content. In November 2016, it was reported that print ad sales dropped 19 percent from 2015, which greatly impacts smaller communities that do not have access to large amounts of resources. As the Stanford media literacy study showed, young people are not immune to the effects of disinformation, and as the influence of social media marketing and political advertising grows, a critical part of students' civics and media education should be critical thinking training. Next, the media industry should place a heavier focus on investigative reporting, transparency and fact-checking initiatives.

Media literacy training, an important first step in tackling most students' apparent inability to identify and check information credibility will likely prove to be an extremely difficult task given the amount of capital required to fund large media literacy and analysis training. However, there are available models that can serve as tests for larger projects. Tara Susman-Peña, a senior adviser for the education research non-profit IREX, wrote that Western countries can learn from Ukraine, a country that has faced its own wave of disinformation from the Russian government since 2013. With funds from the Canadian government and Ukrainian organizations like Stopfake.org, IREX started Learn to Discern, a media training course that

encourages critical thinking, disinformation detection and gives guidance on finding legitimate news sources. The course also intends to disempower emotional manipulation tactics and teach how to "disengage" oneself and "navigate the fog of a post-truth world" (Susman-Peña). The adult curriculum includes topics such as media manipulation, hate speech in media and identifying influence ("Citizen Media Literacy Training Trainer's Guide"). According to IREX's website, Ukraine was an excellent candidate for the program because the country suffers from "structural weaknesses" in its media environment and less than 25 percent of Ukrainians trust their largely oligarch-owned news corporations. "Ukrainians live in a propaganda-filled environment where half-truths and 'alternative facts' play on fears, confusion, national identities, and patriotic feelings," wrote the program's directors (Susman-Peña and Vogt). The results from the program's application in Ukraine appear to be encouraging. The organization reported that out of 15,000 direct participants there was 24 percent increase in media literacy, which is defined by one's ability to find trustworthy news and identify fake news. Students also saw a 22 percent increase in cross-checking ability and a 26 percent increase in one's ability to analyze news effectively (Susman-Peña and Vogt). Some students also reported they use their training to teach others in their local communities and actively encourage others to question what appears on TV news channels. "Critical thinking, individual and group psychology, and social trust, provides a better defense against fake news than simple fact checking," Susman-Peña wrote. REX's website states that pilot programs are underway in the United States with partners like Free Press, a media advocacy non-profit. Certainly, Learn to Discern faces an uphill battle, and it is probable that private, non-profit programs will not be the sole educator. Public schools and colleges will also need to face the challenge and associated political hurdles.

Investigative and collaborative journalism could also make an impact on forging trust. Public demand could bring investigative work into the spotlight. Despite the attacks on the mainstream media from the top leadership, some evidence suggests investigative reporting has become a resurgent force because of public demand and a belligerent president. In March 2017, the Poynter Institute reported that large media outlets were adding investigative reporters at a fast pace. "It's the most intense I've ever seen, and I've been hiring reporters for a long time," said a head recruiter for The New York Times. The article notes the high demand is a result of an audience that recognizes its importance and is willing to pay for journalism that holds "powerful institutions and individuals accountable" (Mullin). However, it should be noted that this resurgence may only exist for large outlets in big cities, due to a decline of locally owned media. According to a report by The University of North Carolina, over one-third of newspapers in the United States have either been sold or changed ownership, often to owners who are removed from journalistic ethics and concerns. As the executive summary states, these newspapers are under ownership that is primarily concerned with short-term profits, rather than the quality of the content. As a result of condensed ownership and local profit decline, the report says, "news deserts" are appearing in large sections of the country, which "would have significant long-term political, social and economic consequences" (Abernathy, 7). In an op-ed for The Guardian, freelance New York Times journalist Ross Barkan says financial decline is a result of the "winner-take-all capitalist system" in the United States, which only benefits large urban areas. He cites a US Bureau of Labor report which shows that between January 2001 and September 2016, news employment decreased by 238,091 people, largely the result of newspaper decline and lack of alternative funding methods. Barkan suggests one reason why Americans have become captured by Trump's anti-media rhetoric is that reporters are no longer trusted members

of local communities. Rather, they are seen as distant elites which only appear for short periods of time during an election or scandal. “There is no lived reality to draw from,” he says. “There are only the images and the hate, symbols and distortion.” (Barkan). Barkan says either citizens need to start paying for journalism, or the government needs to fund outlets as a public service. How to pay for journalism, especially investigative journalism, is the key problem that needs to be addressed if a more responsible, collaborative and in-depth journalism is to flourish. In addition, if the US media followed the German model of support for well-trusted public broadcasting, a comprehensive media landscape reform should include stable and generous funding for broadcasters like the National Public Radio (NPR) and Public Broadcasting Service (PBS). Under the Trump presidency and Republican leadership, federal funding for NPR and PBS is likely to be cut completely over two years. According to its CEO, many PBS stations will fold completely without federal funding (Concha). This is likely to exacerbate the first aforementioned dimension of the problem, the lack of well-trusted journalism in the less-profitable regions of the country. Voices in support of the investigative approach include Alexandra Borchardt, Director of Strategic Development at the Reuters Institute for the Study of Journalism, who makes a case for a more adversarial and trustworthy journalism. (“Making Journalism Great Again by Alexandra Borchardt”). While she believes the rise of disinformation has assisted the obscuration of the facts, phenomena likely to spread as technology develops, the breakdown of trust and an increased reliance on dominant social platforms are greater threats to traditional media. However, what should be inferred from this paper’s analysis is that disinformation and media trust are linked, as an environment poisoned by rabid partisanship, foreign influence and information weaponization can intuitively impact trust and degrade truth. Donald Trump, for example, successfully tapped into the growing discontent about the

mainstream media with his mantra of declaring entire outlets as fake news, a reflection of the already divided media landscape. Nevertheless, Borchardt has identified key problems, and her suggestions for solutions are appropriate. She argues that journalists have become members of the business elite who are increasingly out of touch with citizens' needs. Those who once sought to critique power are now deeply invested in it and as a result, journalists and news organizations became targets upon the rise of populist resentment. She cites the investigative reporting regarding offshore tax havens, dubbed the Panama and Paradise papers, as a future model for serious journalism. To curb social platforms' tendency to boost sensationalism, insofar as finances permit, all political journalism should become investigative. As Borchardt writes, key aspects should include: reporting public policy more earnestly than rhetoric, creating content that speaks to diverse audiences, scraping "expensive, flashy projects," which may appear frivolous and promoting investigations that do not rely solely on Tweets which she called an "editorial pathology." However, while social media and internet-based media can facilitate disinformation, the same platform could also allow journalists to reach a wider audience and generate funding for their projects. Abandoning social media or internet platforms altogether is not a serious solution and could risk alienating consumers who are already dedicated to online platforms. For example, after Mother Jones published their 18-month, 35,000-word investigative account of the private prison system, it was shared on social media thousands of times and was reportedly read by over one million people. An example of the real-world impact well-funded investigative journalism can have, the report influenced the US Justice Department to end its contracts with private prisons. As Mother Jones argues, their report is one example of what positive social impact journalism can have when it has the monetary support of its readership (Bauerlein and Jeffery). However, consistent, long-term investigative projects are unlikely to be financed if the

primary concern is profit-oriented, given that the expense (the prison story cost about 350,000 dollars) is unlikely to be justified. Instead, reader-funded or philanthropic foundation-funded journalism appears to be the most realistic path towards a sustainable model that citizens can trust. A few initiatives in Europe could serve as examples of media models that other countries could learn from. In France, former Le Monde editor-in-chief Edwy Plenel manages Mediapart, an adversarial, reader-funded investigative outlet. Mediapart, founded in 2008, is well-known in France for refusing funding from corporations and advertising and today boasts 140,000 subscribers and annual revenue of 17 million US dollars. In an interview with the Global Editors Network, Plenel said the internet has allowed his company to reach enoughy readers to become profitable and sustainable, growing at a pace of 10,000 readers per year. For Plenel, "paying is not a wall, it's a thin membrane that every citizen can pass through" (Pecquerie). He also credits the publication's independence to its funding model, and allows the ruthless and often controversial investigations to continue. Perhaps, Mediapart's most well-known investigation was its 2016 revelation that Gaddafi's Lybia significantly funded the 2007 presidential campaign of former French president Nicolas Sarkozy. As reported by The New York Times, Sarkozy could face up to a year in prison as a result (Breeden). In Germany, another example of a similar model is the work of CORRECTIV, a non-profit investigative news and transparency outlet. The outlet is the first and only non-profit of its type in Germany and aims to make investigations available to all Germans through partnerships with media organizations. CORRECTIV also sponsors investigative journalism education to "help empower citizens to gain access to information and promote transparency" ("About CORRECTIV"). Funded by philanthropic foundations and the public, the organization aims to fill the investigative gap and focus on investigations about political corruption and violent extremism. In 2015, CORRECTIV made a

significant contribution to the investigation of the downing of Malaysia Airlines flight MH17 in Ukraine, concluding that the Russian military was mostly responsible (Bensmann and Crawford). Organizations allow media outlets to publish vital investigative work while sparing the costs of large investigative projects, however, the public, philanthropic organizations and experienced journalists willing to take the risk will be required to step up and establish independent companies like Mediapart and CORRECTIV. Finally, in 2018 the Reuters Institute published an analysis of "The Rise of Collaboration In Investigative Journalism," in the industry as a way to address the shift in funding structures. The report argues that as news revenues decline, journalists will need to collaborate as to "support investigations they would be unable to conduct alone" (Sambrook, et al. 1). What the author calls the "social value" of investigative journalism will be an important factor in holding those in power accountable. Collaboration is advantageous, for organizations both big and small, because it allows participants to utilize skills the other may not possess. As the report notes, a large organization contributes its potential reach, the ability to attract readers and subscriptions, while a small organization can provide "provide new perspectives, new skills, and new audiences" (Sambrook, et al. 96). Therefore, if collaboration prevails over competition, start-ups will not necessarily become crowded out by big publishers. To achieve this, the report's conclusion lists a number of important guidelines that will need to be established including: Trust, confidentiality, collaborative success measurements, technology innovation, conflict management and core, long-term funding for investigative projects (Sambrook, et al. 97).

Journalistic transparency will need to be included in attempts to modernize ethical journalism and further counter disinformation. Transparency can be a key component to building an audience's trust, which may be lost through the perception of unnecessary bias and distortion.

In Europe, journalism accountability and transparency initiatives are appearing in wake of demand for anti-disinformation efforts. In April 2018 in Paris, Reporters Without Borders, Agence France Presse, the European Broadcasting Union and the Global Editors Network established the Journalism Trust Initiative, an effort to establish a shared set of transparency and ethical standards for journalists. The intended reforms are voluntary and can be adopted by anyone, from small bloggers to large international outlets like the AFP. The new organization intends to empower organizations by eventual certification, which can allow quality journalism to receive better search engine ranking and social media visibility. The initiative could also foster transparent public funding for media organizations that adopt the standards ("RSF and Its Partners Unveil the Journalism Trust Initiative to Combat Disinformation"). Other transparency experiments in recent years include initiatives like Reuters Backstory, a web page that provides a behind-the-scenes look at how the company's journalists formulate and explore stories. ("Reuters Backstory"). Transparency can be a component in a larger context that ultimately should serve to establish greater trust between users and journalists.

The threat that disinformation poses is seen as significant enough by the European Union that it funds an anti-disinformation fact-checking campaign by the European External Action Service East Stratcom Task Force. The EU-funded group collects cases of disinformation and places them in a public database, "to better forecast, address and respond to pro-Kremlin disinformation" ("About"). The campaign aims to debunk false claims in European, Asian, or Russian media. The organization lists disinformation on their website and creates shareable facebook videos to highlight examples. Examples include quotes or statements by Russian or Ukrainian political figures and proceed to be debunked by the website's team. The anti-disinfo project provides a case study of a potentially powerful counter-disinformation method: using

social media to reach citizens and warn them of potential disinformation. In addition, fact-checking is an important but ultimately insufficient tool to combat fake news. As of December 2017, there are 137 fact-checking outlets in 47 different countries total and 44 fact-checking outlets in the United States (Funke). Fact-checking usually includes debunking false information on dedicated websites, however, since disinformation has largely disseminated through social media, a more modern approach is needed. In 2016, Facebook attempted to address the issue by creating fact-checking tools to monitor the platform and mark fake news as untrustworthy (Jamieson and Solon). One year later, the effort appears to have incredibly limited effectiveness and has been the target of criticism by journalists who work externally with Facebook. “I don’t feel like it’s working at all. The fake information is still going viral and spreading rapidly,” said an unnamed journalist to The Guardian. Journalists fear the effort does not produce the results it claims and prevents criticism of Facebook’s role in facilitating the problem (“‘Way Too Little, Way Too Late’: Facebook's Factcheckers Say Effort Is Failing”). A 2017 study by Yale University appears to confirm this belief. According to POLITICO, the Yale researchers found that posts tagged as “disputed” resulted in only a 3.7 percent higher chance of users identifying the content as fake. Additionally, for Trump supporters and users under age 26, the tag was negatively associated with correct identification. “Even to the extent it’s doing anything, it’s a small effect,” said one researcher. “It’s not nearly enough to solve this problem.” After the tags were applied, the study also found that people aged 18 to 25 were 3.1 percent more likely to correctly identify the fake story but also 4.4 percent more likely to believe the fake story was real (Schwartz). The researchers suggested this contradictory outcome could be the result of declining media trust. Facebook criticized the study’s method, pointing out the study was a

survey and not use data from Facebook users directly. Ultimately, it appears the volume of fake news makes fact-checking a near-impossible task although not a completely useless endeavor.

5. Conclusion

One of the most subversive features of the post-truth era is those who spread disinformation, conspiratorial or otherwise low-quality information erroneously claim to be the true unbiased truth-tellers. In addition, the rise of trolls, bots, activist influence campaigns and state-backed propaganda could be said to be a result of the systemic partisanship of American political and intellectual life. During the age of social media and communications decentralization, greater trustworthiness will require the free press to confront powerful actors, but also stimulate informed debate. The outlined studies show the possibility, although not the certainty, that disinformation and fake-news could have swung the 2016 US election. However, even if one believes this to be false, the degradation of the media environment could still serve to undermine democratic principles and divide an already polarized nation. Political journalists should increasingly vigilant, inquisitive and resistant to the temptations of sensationalism and hyperbole insofar as their institutions allow. Skepticism is still warranted, and when examining the real threat disinformation poses it would be wise not to rely on domestic intelligence services as heavily, but rather on multivariable, independent analyses to the greatest extent possible. Some evidence demonstrates that a low-trust environment can foster disinformation and pollute the media ecosystem by overwhelming audiences with biased or conspiracy-oriented information in an attempt by bad faith actors to create the perception of a chaotic and destabilized world. Authoritarian states that crack down on the free press, like Russia, use their disinformation network to foster influence through troll armies and propaganda broadcasting. However,

shedding of responsibility and exerting excessive blame on external factors can further destabilize an already fragile trust. While disinformation and misinformation plays an increasingly greater role in the media ecosystem, American and European journalists have a unique responsibility to become more ethically aware and resistant to hype and speculation. Media sensationalism, often guided by market principles, can make national discourse corrosive and can undermine the genuine ideals and commitments of the Fourth Estate. Hyper-partisan media, with its relative disregard for objectivity, will remain a powerful force in the media landscape unless greater media trust can be established and critical thinking and media literacy skills become the norm rather than the exception. American journalists should carefully observe the innovations of their European colleagues and construct new models of funding and collaboration to help foster greater investigative journalism, preferably rooted in shared ethical guidelines.

Perhaps, an honest attempt to reform the media could be denounced as quixotic. Some could suggest there is simply too much political and economic capital at risk to finance greater collaboration to critically amend the Fourth Estate's ideals. However, if journalists and their managers leading the news business choose to ignore the present movement towards a regressive, chaotic information landscape, they could become left with an unreliable and cynical audience who are further allured by politically opportunist constructions of the fake news phenomena. Such an outcome would likely be a major hindrance to a stable democratic state and free debate informed by the generally agreed upon facts.

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