



What's new about 'fake news'?: Critical digital literacies in an era of fake news, post-truth and clickbait

Citation:

Pangrazio, Luci 2018, What's new about 'fake news'?: Critical digital literacies in an era of fake news, post-truth and clickbait, *Páginas de educación*, vol. 11, no. 1, pp. 6-22.

DOI: <https://doi.org/10.22235/pe.v11i1.1551>

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WHAT'S NEW ABOUT 'FAKE NEWS'? CRITICAL DIGITAL LITERACIES IN AN ERA OF FAKE NEWS, POST-TRUTH AND CLICKBAIT

*¿Qué hay de nuevo en las noticias falsas? Alfabetizaciones digitales críticas
en la era de las noticias falsas, la posverdad y el cebo de clics*

DOI: <https://doi.org/10.22235/pe.v11i1.1551>

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Recibido: 20-10-2017

Revisado: 21-11-2017

Aceptado: 02-01-2018

Abstract: The 2016 Facebook fake news scandal has highlighted the difficulty in determining the credibility and reliability of news. As a result, there have been calls for individuals to adopt a more informed and critical stance toward the sources of their news. This paper considers what might be involved in cultivating critical digital literacies in an era of post-truth, fake news and clickbait. Using the platform as the framework for study, the paper examines how the architecture, algorithms and network effects of the platform have changed the way news is created and disseminated, and how audiences are positioned to engage with it. This theoretical critique provides insight into the technical, political and social issues surrounding how individuals engage with online news.

Keywords: critical digital literacies; fake news; digital platforms; social media.

Resumen: El escándalo de noticias falsas de Facebook de 2016 puso de relieve la dificultad para determinar la credibilidad y la confiabilidad de las noticias. Como resultado, se instó a individuos a que adoptaran una posición más informada y crítica frente de la fuente de sus noticias. El presente trabajo considera qué podría estar relacionado con el cultivo de alfabetizaciones digitales críticas en la era de la posverdad, las noticias falsas y el cebo de clics. A través de la utilización de la plataforma como marco para el estudio, el trabajo examina cómo la arquitectura, los algoritmos y los efectos de red de la plataforma han cambiado la manera en que las noticias se crean y se diseminan, y cómo las audiencias se posicionan frente a ellas. La presente crítica teórica arroja luz sobre los aspectos técnicos, políticos y sociales alrededor de la manera en que los individuos se involucran con las noticias en línea.

Palabras clave: alfabetismos digitales esenciales; noticias falsas; plataformas digitales; redes sociales.

INTRODUCTION

In the Republic of Macedonia on the banks of the river Varda, lies the city of Veles, population 43,716. The 19th century wooden houses that line the steep streets are reminders of a time when the city was at its peak, forming part of the trade route that connected the Balkan Peninsula and Aegean sea via the river. While globalisation might be responsible for the deindustrialisation of the city, it is the unexpected consequences of globalisation that have made Veles famous in more recent months. Veles is a city that now hosts over 100 US politics websites; the city has started trading in a new industry - fake news. And it is the digitally savvy teenagers of the city who are reaping the rewards.

While most of the news websites that are based in Veles are pro-Trump, the teenagers responsible for them are reported as caring little about US politics or the outcome of the election. Their goal is to create controversial content, to be shared 'virally' across social media platforms, in order to make money through the advertising that can be embedded alongside these news articles. While the average wage in the city is approximately 4200 Euro a year, some teenagers are earning up to 20 times that through their Google AdSense accounts. It is perhaps not surprising that the Mayor of Veles, Slavco Chediev, describes the monetisation of fake news sites as a success story for the city. The teenagers behind the websites are paying their taxes, which, as one teenager quipped, would keep two of his teachers employed for a year.

While bias in the news is not new, the opportunities brought about by the democratization, monetisation and circulation of 'news' via digital platforms has brought this issue to a critical point, highlighted by Trump's surprising election victory. The goal for the teenagers of Veles however is simply to attract clicks in whichever way they can, whether through clickbait, polls or sensational news stories. As one teenager explained: "Polls work best because you don't need to write much and people always click through" (Byrne, 2016). While the sites appear legitimate with domain names designed to imitate genuine news sites, like ABCnews.com.co and Bloomberg.ma, the news articles are cobbled together from other false news articles and online content. However, once shared by 'friends' on social media platforms these fake news stories acquire a legitimacy that exploits the affective relations between users and their predetermined political bias. In light of this, rather than being social nuisances, the teenagers of Veles' ability to manipulate the technical affordances of digital platforms and the affective reasoning of social media users, make them models *par excellence* for what it means to be digitally literate in an era of platform politics.

This essay is about the most recent instantiation of news bias - namely fake news - and the critical questions it raises for digital literacies education. Using digital platforms as a framework for analysis, the purpose of this essay is to focus explicitly on what is *new* about this moment of fake news. As such, I consider the social, technical and political

milieu that has led to what has been called the 'post-truth' era – an era in which emotion and personal belief are more influential in shaping opinions than objective facts. While this issue has implications for all individuals, I am particularly interested in what this moment signifies for digital literacies education of young people. As such the paper concludes by considering the critical digital literacies necessary for everyday lived experiences of social media use and the implications for digital literacies educators.

WHAT IS FAKE NEWS?

Fake news emerged as an issue after the 2016 US election, in which the most widely circulated stories in the last three months of the campaign came from false websites and hyperpartisan blogs. These stories were shared with much greater frequency than any of the top news articles from major news media, generating over 8.7 million shares, comments and likes (Silverman, 2016). While much has been made of this being a critical moment in media manipulation, it could be argued that this was more likely the point at which we *became critically aware* of these issues. Indeed, various forms of media bias have long existed (see for example Darnton, 2017). In addition, fake news has emerged against a backdrop of ongoing societal changes, such as an increasing distrust of public institutions and news media (Nicolaou & Giles, 2017) as well as a decline in professional news journalists (Clark & Marchi, 2017). This essay however is focused on the role played by digital platforms in this current moment of media manipulation.

With the emergence of the 'participatory web' (Jenkins, 2006) user generated content has become an increasingly important part of digital culture (Grossman, 2006; Mitchem, 2008). This has brought significant changes to the news media industry. Specifically, the ways in which news is reported and shared across populations are expanded through connective media platforms, which has had a positive influence on engaging young people with news and current affairs (Greenhow & Reifman, 2009). At the same time, it is the monetisation and rapid circulation of 'news' through digital platforms that have led to such widespread and effective forms of media manipulation. Digital platforms might democratise the creation and circulation of news, however, in doing so questions around what news is, how it gets made, shared and read in online contexts are also raised.

One of the challenges to this issue is defining what is meant by the term fake news. This term is not only misleading, but also generalizes the different ways in which news can be manipulated. Wardle (2017) has come up with seven types of mis- and disinformation in an attempt to distinguish the different types of 'problematic content' (n.p.) that exist within the current news media ecosystem. This includes categories such as false connection; false context; manipulated content; satire or parody; misleading content; imposter content and fabricated content. The type of 'problematic content' used depends on the creator and their motivation. While heuristics like this are helpful, the more recent instantiation of fake news not only raises questions about the content, but also the way

in which digital texts are disseminated through digital platforms. Through social media platforms, digital texts become a conduit for relational work between users. These relations affect the interpretive processes of individuals, positioning them to engage with the news article or headline in particular ways.

So far there have been a range of responses to the supposed fake news crisis. News outlets and universities have been quick to respond to the most recent moment of fake news by launching online 'fact checking' apps and digital tools that check the 'truth' and validity of particular facts and ideas presented in articles. In some instances, this approach might be helpful, however, it only addresses a small part of a much broader and more complicated challenge. The fact-checking app might have a detrimental effect as not only is critique 'outsourced' to a digital tool, but the fact that these are arbitrated by traditional 'authorities' undermines individual agency and the role of critical digital literacies in everyday life. Facebook and Google on the other hand have introduced different tools to their platforms to help *users* identify and report fake news. Facebook has avoided outright censorship of news and information and instead circulated a series of tips to help users spot fake news, as well as adding the option to report content that users believe to be fake (Pogue, 2017). Ironically, Google have *introduced* human editors to evaluate the content of their search results in an attempt to train algorithms to detect low quality content (Leong, 2017). While Google appear to be doing more to correct the situation, both companies still develop algorithms that are designed to deliver information that they believe users want to read, regardless of its truthfulness.

I see the issue of fake news as having particular significance to researchers and educators working in the field of digital literacies. My aim in this essay is not to replicate the writing and research already taking place on fake news in other disciplines, such as media and communication (Mihailidis & Viotty 2017; Balmas, 2012), information technology (Dale, 2017), journalism (Marchi, 2012; Khaldarova & Pantii, 2016) and even science (Spinney, 2017). Instead, this essay will focus on what the most recent moment of news media bias means for digital literacies educators. Using the platform as a framework for study, this essay will explore the features that lay the foundation for the current moment in fake news, with a particular focus on the digital literacies required to navigate these challenges.

A PLATFORM APPROACH TO FAKE NEWS

Research into the dominance of the platform structure (Srnicek, 2017; Bratton, 2015) and the platformization of the web (Helmond, 2015) explains how platforms provide both the technical and economic infrastructure *and* the discursive framing for social and communicative practices. In line with this more critical approach, this paper uses the platform as an analytical framework to offer a more technical *and* reflexive account of the role that platforms play in the fake news phenomena. While I argue that the digital literacies required to critique fake news require an understanding of the computational,

cultural and social layers of digital platforms, which facilitate the widespread and rapid dissemination of such digital texts. To identify exactly what these literacies might be, I analyse seven features of platforms that have contributed to the current moment of news bias.

1. Platforms produce and rely upon network effects

The theory of network effects or network externalities comes from economics, and claims that the value of a platform depends on the number of users it has (Katz & Shapiro, 1986; Rohn, 2013). In the context of social media platforms, the more users a platform has the more valuable it becomes as a communication service to its members. Facebook, for example, has become the default social networking service in many parts of the world because the sheer number of users means that it is the most logical place for individuals to connect with friends online. However, institutions, companies and other community groups, are also drawn to using the platform because it connects them to the public in useful ways. As participation increases, so too does the amount of data generated, which improves the reliability of the platform algorithms to suggest, recommend and match information between all parties. As Belleflamme and Peitz (2016, p.5) explain this 'enhances the quality of the platform service and, thereby, the utility of all users'. For this reason there is a natural tendency toward platform monopolization.

However, Facebook's monopolization of communicative media has had the residual effect of changing the way people find and read news. Most notably it has limited the number of news sources individuals consult to remain informed about what is going on in the world. According to the Pew Research Centre, 62% of American adults now get their news through social media. Of this 62%, 64% report that they *only* get their news from Facebook (Gottfried & Shearer, 2016). In Australia, 52.2% of adults receive their news through social media, however, only 18.5% of these people use only social networking sites or blogs (Park, 2016). While these data only represent two countries they indicate a broader trend toward engagement with news on social media platforms, most notably Facebook. On Facebook, users are more likely to stumble upon news shared by friends, rather than actively seek it out (Oeldorf-Hirsch & Sundar 2015). While this might increase young people's engagement with news and information, it also introduces different news reading practices *and* encourages different processes of interpretation in individuals.

2. Platforms work as a framing device

There are two ways in which platforms frame information for users – through the architecture of the platform and the social networks that mediate the content that is shared. The 'architecture' of a platform can be taken to mean the 'system's overall structure and function', including the interface specifications, as well as the algorithms

and processes that 'govern relationships among components and allow them to interoperate' (Baldwin & Woodard, 2008, p.7). While platforms might appear decentralized, in reality it is only content creation that is decentralized. The platform position is one of an intermediary, managing or governing the terms of the relationships between parties through the manner and volume of interactions. This means that the platform is essentially a 'drawing and framing machine' (Bratton, 2015, p.85), accentuating particular aspects and modes of communication and relegating others. On Facebook, for example, links to the outside web are deprioritized in the Newsfeed, as operators aim to keep users on the platform for as long as possible (Tufekci 2016). Official news organisations therefore have a difficult time connecting individuals to their content on Facebook, as the architecture of the platform mediates the distribution of information. In mid-2016 Facebook changed its algorithms to preference posts from friends and family and de-emphasise those from mainstream news media. As a result of Facebook's decision, traffic to these news media sites fell by numbers as significant as 25% (Ingram, 2016), making it less likely for users to read news from traditional news media sources.

When a news article, or digital resource is shared on a social media platform, it is done so via some kind of social relationship, be it a strong or weak tie. Unlike other media, such as the newspaper or television news, the platform and the relationships it sustains, also act as a framing device for digital content. It matters that we are familiar with the individual who shared the article, as this can abate critical faculties and position the reader to engage with the text in particular ways. On social media the underlying relationship or impression one has of the person sharing becomes particularly significant in how that information is interpreted. As Apperley and Parikka (2015, p.5) explain, platforms 'are not just technologies but techniques that sustain interactions as well as offer an epistemological framework'. When disseminated via a social media platform, a news article becomes more than just information; it becomes a conduit for affective relations between individuals. Specifically, social networks tend to be made up of like-minded people, meaning the phenomenon of confirmation bias, in which we seek out or more readily believe information that confirms what we know or value (Braucher, 2016), is enhanced.

3. Users can modify and manipulate the structure of the platform to suit their needs

While overall governance of the platform belongs with the platform operators, the user can manipulate the structure to suit their needs. Indeed, the utility and adaptability of digital platforms have helped secure their dominance on the internet. As Srnicek (2017) explains, platforms come with tools that enable users and developers to build their own services, products and marketplaces. The Macedonian teenagers, for example, were able to create Facebook identities that enabled them to reach American audiences and

purportedly influence US politics. While these individuals were not recognized as political 'citizens' of the US, as Bratton (2015, p.87) points out, they are 'nevertheless included in communication by platforms that are agnostic to the legal status of its users' (p.87). Despite this, the credibility of the users disseminating these news articles was increased if their profiles were based in the US. Not surprisingly US based Facebook profiles can now be bought on the black market (Subramanian, 2017). Despite enabling and promoting the participation of other parties, the platform operators hold little responsibility for what takes place on the service. Indeed, no news organization has ever had as much power to influence public opinion as Facebook. Despite this, current CEO Mark Zuckerberg remains adamant that it is a 'tech company' and not a 'media company' because such a label would mean greater responsibility to regulate the users and content on the platform (Roberts, 2016).

4. Platforms ensure every user's experience of the platform is different

One of the most significant features of the internet is the large amount of news and information that users have access to. While this has obvious benefits, the constant stream of information can be difficult for users to navigate. This 'infoglut', as Andrejevic (2013) terms it, has led to the creation of an array of digital tools, data mining strategies and algorithms that filter information in order to establish a more personalised, streamlined experience of the web for users (Mobasher, Cooley & Srivastava, 2000). Many digital platforms aim for increased levels of personalisation. Google, for example, provides personalised results for search queries based on browsing histories and social connections (Google, 2009). On social media platforms such as Facebook, information is not only filtered through user curated social networks, but also interface design and the News Feed algorithm.

While humans have always tended towards homophily (i.e. selectively interacting with like-minded people) the architecture of digital platforms and their focus on personalising user experience, only enhances this tendency. Research by Del Vicario et al. (2016) showed that the Facebook platform helps users find, follow and focus on certain people while excluding others, encouraging the emergence of polarized communities. Their findings on two hyperpartisan community pages suggest that whether a news item is accepted as true is strongly affected by the social norms of the group or how much 'it coheres with the community's shared belief system and values' (Del Vicario et al., 2016, p.9). However, the News Feed algorithm also makes assumptions about the future content that users will be interested in based on which content they have engaged with in the past and which users they have most connections with (Bucher, 2012). In a similar way, Google search will start to include and prioritise particular content that matches the users social networks and browsing history. As such the goal of many platforms to 'personalize', 'customize' and 'tailor' user experience, means individuals become aligned with social groups that can lead to a kind of 'group think' approach to news and

information. This also means factually incorrect information, or fake news, can be rapidly spread through social groups and networks which share the same or similar beliefs and values.

5. Platform architecture facilitates frictionless sharing of digital content

In 2011 Facebook introduced an external like button - a plugin that can be included on any website. With the advent of this social button all pages on the web became potentially 'likeable'. As Gerlitz and Helmond (2013) explain, this means that Facebook and the external web are increasingly interconnected, as the practices in one space affect another, 'rendering both more open and relational' (p.1358). Indeed, the architecture of the Facebook platform – including the interface design and the proliferation of social buttons across the internet – mean news and information are easily shared both with an array of social and commercial actors. This 'alternative fabric' (Gerlitz & Helmond, 2013, p.1361) of social media platforms is dependent on data flows generated through users sharing, recommending, commenting and liking posts and pages across various social media platforms.

Despite the control afforded to platform operators through the Facebook architecture users have, in the main, embraced its design, values and practices. In 2012, there was an estimated 3.2 billion likes and comments on Facebook everyday (McGee, 2012), creating a culture of participation based around sharing and liking. As Sumner et al. (2017) explain one of the main benefits of the like button is its ambiguity, meaning its interpretation is highly dependent on the context and audience. While the like is often used to share content, it is the relational work that it performs which is most significant. As various studies report (Sumner et al, 2017; Eranki & Lonkila, 2015), the like has become an integral part of facilitating relationships and self-representation. However, its pervasiveness has led to expectations around use. Indeed, sharing has become the 'fundamental and constitutive activity' of social media (John, 2012, p.167). Research by Egebark and Ekstrom (2011) suggests that the Facebook platform is an environment that constitutes conformity because it is highly visual and it is based around expression of beliefs and attitudes symbolised by the like button.

6. Platforms depend on data extraction and monetisation

While many of these platforms are ostensibly 'free' to users, the business model relies on data extraction and monetization. The platforms that have most significance to fake news are Facebook and Google – platforms that Srnicek (2017) categorises as 'advertising platforms' or platforms that 'extract information on users, undertake a labour of analysis, and then use the products of that process to sell ad space' (p.49). The Google platform, for example, enables any website to be connected to a Google Ad sense account, regardless of the content that website disseminates. The teenagers of Veles were able to

tap into the data assemblage and yield a profit through their Google AdSense accounts, which monetise the clicks on the ads that are embedded alongside the false and misleading articles. The content itself matters little. In some cases manipulating the headline is enough for an article to be shared widely on social media and attract attention and clicks to the external website. In the lead up to the US election the articles that were circulated the most often had an outrageous or exaggerated headline, however, the actual content of the article was sometimes contradictory or even true (Silverman, 2016).

7. User input on platforms results in an increase in value of that information to the user

On social media, individuals are encouraged to like, share and comment on digital texts. In the process these texts accrue credibility as well as value for those who circulate them, such as increased social connections and personal morale. The practice of sharing texts not only disseminates information across social networks, but also helps to distil and project a sense of self to the world. Adami (2012) argues that the culture of sharing often requires greater effort on the part of the viewer to retrieve and interpret the implied and intertextual meaning bound up in shared texts. As such, interpretation leads to a sense of reward in that the viewer becomes an insider or 'part of an elite' (Adami, 2012, p.132). While those who create fake news articles might be motivated by the need to make money, the user who shares the article through their social network is mostly seeking to maintain or perhaps expand their socialities, or associations with other individuals in society. Sharing the article becomes part of their 'identity work', which demonstrates their understanding of the implied and intertextual meanings of the article, as well as their belonging to a particular political group. These digital texts gather credibility as they are shared across social networks acquiring likes, shares and comments from users. As these links and shares have value for the author and viewer, the motivation to prevent the spread of misinformation is diminished. Through the platform, people's sociality becomes imbricated with the creation and sharing of digital texts in ways that can be difficult to identify and unpack.

In considering the complex features of digital platforms the sophisticated nature of the Macedonian teenager's digital literacies is evident. Not only did they create news articles that would gather the attention of audiences across the United States and the world, but they were able to exploit the network effects of digital platforms to disseminate the news widely, and subsequently generate a personal income. While their success relied upon identity theft and willfully creating factually inaccurate news articles, it also required a complex understanding of the potentialities of digital texts and their affective 'work' across digital platforms. Many of the fake news websites coming out of Macedonia have now been shut down, however, the broader concern of how digital platforms can be manipulated to spread misinformation still remains an issue. Given that social media are

playing an increasingly important role in how people encounter news and information, there are important implications for digital literacies and digital literacies education.

IMPLICATIONS FOR DIGITAL LITERACIES AND DIGITAL LITERACIES EDUCATION

Digital platforms have not only introduced new reading practices, but they have also changed the interpretive processes individuals typically bring to reading news and information articles. Many of these changes have taken place in a subtle way as readers have adjusted to the news context without considering the specific challenges it raises. In light of this, there is clearly a need to identify the digital literacies required to address the challenges brought about by the most recent moment of fake news. The features of digital platforms identified in the previous section highlight some of the literacies required to understand the technical, political and social layers implicit in the creation and dissemination of fake news. Indeed, to critique fake news in the context of social media, one needs an intertextual, affective and networked reading of the content in question. But first, digital literacies educators need to acknowledge that it is not just the content on digital platforms that is significant, but the platform itself needs to be approached as an object of study. Schools and educational institutions have been afraid to focus on digital platforms, perhaps because they are often associated with recreational or social uses. However, as social media platforms and their infrastructure are increasingly a part of news and information practices it is essential they are critically evaluated.

1. Identify the changing nature of news reading practices

In analysing the role of platforms in the fake news phenomena there are at least two significant changes to reading practices that are important for digital literacies educators to be aware of. First, in relation to sourcing news and information individuals are less likely to seek news directly from news sources and instead come across information through their social networks. According to Matsa and Mitchell (2014), 78% of users see news when they are using Facebook for *other* reasons. While only 34% of users subscribe to a news media source on social media. Encountering news articles via the social sphere rather than the sphere of news and information means the article is not read in context, giving people less opportunity to compare the structure, style and voice to other news articles. Related to this is that discovering news and information is no longer an individual pursuit but instead a social endeavour (Nikolov et al., 2015). This not only changes how people find out about news and information, but also their fundamental disposition towards engaging with these articles. Typically, users do not feel the need to be critical in this space, as a social media platform like Facebook is a site for sharing news and information with friends. However, the most recent instantiation of fake news has shown that the more relaxed and open disposition of users can be exploited, not only by the

platform operators, but other parties as well. Making educators aware of these changes will encourage them to find ways to support young people to develop critical news reading practices as part of their everyday lived experience of social media use.

2. Knowledge of platform architecture

Also required is an understanding of the platform architecture, including its structure and function, as well as the algorithms and processes that govern relationships allowing the various components to interoperate. Young people need to be discouraged from seeing platforms as neutral conduits of news and information and instead analyse the structure and function of the architecture. While this might seem an obvious point, many people fail to intuit the fact that the architecture of the platform is designed to encourage participation from users that will benefit the platform – the production of an individual with agency is not necessarily an ambition. Introducing a more critical disposition toward the presentation of information at the interface is an important first step toward developing critical digital literacies. Analysing Facebook's Newsfeed algorithm (Bucher, 2012) and Google's PageRank algorithm (Rieder, 2012) would help young people think about what is not prioritized or even shown on the interface, which is a powerful way to critique the motivations of platform operators. Being aware of these specific design issues is useful to understanding the way in which fake news articles are presented and circulated across the platform. For example, with regard to fake news it might also be helpful to think about the function of the like button and the role that it has played in opening connections between Facebook and the wider web. Specifically, the fact that the like button now mediates connections and interactions for users is a key point to consider. Rather than accepting the ambiguity implicit to the like button, being more conscious and aware of its function on the platform would also be a useful step toward more conscious and thoughtful sharing.

3. Understand digital platforms as part of broader social and technical networks

It is also important to build an understanding of how digital platforms fit into a broader network of technological and semantic systems. Elsewhere this has been called 'network literacy' (NetSciEd, 2017), which can be thought of as 'basic knowledge about how networks can be used as a tool for discovery and decision making', including an understanding of the 'potential benefits and pitfalls' of networks (p.2). Importantly this definition acknowledges that networks can be both beneficial *and* problematic, and that even the same feature of a platform can be seen in different ways depending on the situation. For example, in the case of a natural disaster, network effects are obviously advantageous because alerts and warnings can be quickly shared across populations. However, in the case of misinformation the same feature of networks is problematic.

Visualisations of the underlying network can be a helpful way to understand how platforms connect people, institutions and information (NetSciEd, 2017). Helping young people to visualize how news articles enter and spread out across networks, as well as the various points of incentivisation, would develop a more critical approach to the role played by social media platforms in the fake news phenomena. In doing so, they may discover that the network is not as equally or well distributed as first thought. Indeed, Galloway (2011) reminds us mapping information in this way cannot visualise or represent the 'social totality' of the information age. Bearing this in mind, when visualizing networks and the role of digital platforms within these, a consideration of which aspects of the network are difficult to capture and why is important. Identifying and exploring the 'blindspots' within networks would help individuals to critically evaluate structures and functions that are typically beyond perspicuity.

4. Identify and critique the ideologies implicit to digital platforms

Critical digital literacies encourage young people to analyse the ideologies implicit to a text. However, it is not just the ideology of the text that requires scrutiny, but the digital platforms that disseminate this content. These require sophisticated digital literacies due to the opacity of the architecture behind digital platforms. Indeed, being opaque means 'control, ownership and ideological uses of these new [information] flows' remain 'volatile and dynamic' (Luke 2013, p. 137), which no doubt has benefits to platform operators. One way to develop literacies of digital platforms is through an understanding of their political economy. While this might sound difficult, particularly in relation to cultivating the digital literacies of young people, it could be something as simple as unpacking the role that metrics play on the platform and understanding the role between metrics and commodification. As Beer (2016, p.24) explains understanding the role of metrics helps to reveal the ideology upon which these systems are built:

Metrics then play a central role in the formations of neoliberalism and its limits. Systems of measurement are the means by which the shift can be made towards calculation and away from judgment and critique. But, it is important that we see these metrics as cultural and political objects as well as being infrastructural by-products.


Digital literacies for fake news also need to consider the way data are extracted and monetized, as well as the way in which online advertising attracts revenue for website operators. While many young people claim to be unfazed by online advertising, the fact that revenue is generated through advertising clicks has material implications for website operators that users should know about. Identifying these opportunities for revenue generation means individuals can understand why particular practices and behaviours are encouraged.

5. Explore how affect circulates and condenses across digital platforms

Finally, individuals should be encouraged to think about how the sharing of news and information relates to their socialities through affect. Affect can be thought of as the more subliminal forces that drive behaviours, but which defy categorization into typical emotions, such as happiness and sadness. It explains 'how individual, collective, discursive, and networked bodies, both human and machine, affect and are modified by one another' (Paasonen, Hillis & Petit 2015, p.3). In this way, technology 'mediates desires' and creates a series of 'travelling affects' (Kofoed & Ringrose, 2012, p.16), or emotional responses that circulate through people and digital media. In light of this, consideration needs to be given to how the information presented on platforms develops an affective response in individuals, shaping their digital identities and online relationships. Economic historian Philip Mirowski (2014), for example, argues that the interface is 'continuously destabilizing identity', distilling an individual's identity 'to a jumble of unexplained tastes and alliances', in such a way that requires 'constant care and management' (p.113). This creates a kind of perpetual lack, which can only be quelled through visiting and maintaining the digital identities presented on the platform. Cultivating an awareness of the way affect condenses through metrics and notifications might help to create a critical distance from the platform that is necessary to evaluate fake news articles.

CRITICAL DIGITAL LITERACIES FOR NEWS AND INFORMATION ON SOCIAL MEDIA PLATFORMS – TOWARDS A RESEARCH AGENDA

Given the features of digital platforms and their role in disseminating news and information that have been outlined in this paper there is clearly a need for future research in this area. However, with recent initiatives directed toward 'fact checking' tools and platform based governance in the form of check lists and flags, there is the possibility that research and education developing social and political understandings of digital platforms in individuals will be de-prioritised. This article has outlined the specific digital literacies required to help individuals to be responsive to the changing nature of news and information as it appears on digital platforms. This is not to replace the literacies needed to critically engage with the *content* that is presented in these articles, but to draw attention to the infrastructure that enables the creation and dissemination of misinformation. From this perspective the following questions point to some areas that require further in-depth research and investigation:

- How do digital platforms reconfigure news and information practices? 
- What kinds of critical digital literacies are necessary to understand infrastructure of digital platforms and how might these be practiced?

- What sort of critical understandings do young people have of digital platforms and their role in disseminating news and information? In what ways are these applied in daily digital practices? [L] [SEP]
- What sorts of practices and techniques have successfully developed critical approaches to news and information in the past? Can these lessons be translated to the challenges initiated by digital platforms?
- What are the short- and long-term consequences for society and democracy as news and information are increasingly disseminated through social networks?

This paper has analysed the features of digital platforms that are pertinent to the fake news phenomena. In doing so, I have raised epistemological and ontological concerns that are difficult to address. However, in identifying these features and the literacies required to critically evaluate the way in which content is created, disseminated and circulated it is hoped that an evidence-based framework for critical studies of digital platforms will soon follow.

REFERENCES

- Adami, E. (2012). The rhetoric of the implicit and the politics of representation in the age of copy-and-paste. *Learning, Media and Technology*, 37(2), 131-144.
- Andrejevic, M. (2013). *Infoglut: How Too Much Information is Changing the Way We Think and Know*. New York, NY: Routledge.
- Apperley, T., & Parikka, J. (2015). Platform studies' epistemic threshold. *Games and Culture*, 1(21), 1-14.
- Baldwin, C. Y., & Woodard, C. J. (2008). The architecture of platforms: A unified view. *Harvard Business School Working Paper*. Retrieved from http://www.hbs.edu/faculty/Publication%20Files/09-034_149607b7-2b95-4316-b4b6-1df66dd34e83.pdf
- Balmas, M. (2014). When fake news becomes real: Combined exposure to multiple news sources and political attitudes of inefficacy, alienation and cynicism. *Communication*, 41(3), 430-454.
- Beer, D. (2016). *Metric Power*. London, England: Palgrave Macmillan.
- Belleflamme, P., & Peitz, M. (2016). Platforms and network effects. In L. Corchon, M. Marini, & E. Elgar (Eds.), *Handbook of Game Theory and Industrial Organization. Vol. II* (pp. 286-317). Northampton, MA: Edward Elgar.
- Bratton, B. (2015). *The Stack: On Software and Sovereignty*. Cambridge, MA: The MIT Press.
- Braucher, D. (2016). Fake news: Why we fall for it. *Psychology Today*. Retrieved from <https://www.psychologytoday.com/blog/contemporary-psychoanalysis-in-action/201612/fake-news-why-we-fall-it>

- Bucher, T. (2012). Want to be on the top? Algorithmic power and the threat of invisibility of Facebook. *New Media & Society*, 14(7), 1164-1180.
- Byrne, A. (2016). Macedonia's fake news industry sets sights on Europe. *Financial Times*. Retrieved from <http://www.nybooks.com/daily/2017/02/13/the-true-history-of-fake-news/>
- Clark, L. S., & Marchi, R. (2017). *Young People and the Future of News*. Cambridge, UK: Cambridge University Press.
- Dale, R. (2017). Industry watch: NLP in a post-truth world. *Natural Language Engineering*, 23(2), 319-324.
- Darnton, R. (2017). The true history of fake news. *The New York Review of Books*. Retrieved from <http://www.nybooks.com/daily/2017/02/13/the-true-history-of-fake-news/>
- Del Vicario, M., Vivaldo, G., Bessi, A., Zollo, F., Scala, A., Caldareello, G., & Quattrociocchi, W. (2016). Echo chambers, emotional contagion and group polarization on Facebook. *Nature Scientific Reports*, 6, 1-14. Retrieved from <https://arxiv.org/abs/1607.01032>
- Egebark, J., & Ekstrom, M. (2011). Like what you like or like what others like? Conformity and peer effects on Facebook. *Research Institute of Industrial Economics Report*. Stockholm, Sweden. Retrieved from <https://pdfs.semanticscholar.org/a367/bf790988b61335c556967babc3ea4ebd072e.pdf>
- Eranti, V., & Lonkila, M. (2015). The social significance of the Facebook Like button. *First Monday*, 20(6). Retrieved from <http://firstmonday.org/ojs/index.php/fm/article/view/5505>
- Galloway, A. (2011). Are some things unrepresentable? *Theory, Culture and Society*, 28(7-8), 85-102.
- Gerlitz, C., & Helmond, A. (2013). The like economy: Social buttons and the data-intensive web. *New Media & Society*, 15(8), 1348-1365.
- Google. (2009). Personalised search for everyone. *Google Blog Spot*. Retrieved from <https://googleblog.blogspot.com.au/2009/12/personalized-search-for-everyone.html>
- Gottfried, J., & Shearer, E. (2016). News use across social media platforms 2016. *Pew Research Centre - Journalism & Media*. Retrieved from <http://www.journalism.org/2016/05/26/news-use-across-social-media-platforms-2016/>
- Greenhow, C., & Reifman, J. (2009). Engaging youth in social media: Is Facebook the new media frontier? *Nieman Reports*. Retrieved from <http://niemanreports.org/articles/engaging-youth-in-social-media-is-facebook-the-new-media-frontier/>
- Grossman, L. (2006) Times person of the year: You. *Time Magazine*. Retrieved from <http://content.time.com/time/magazine/article/0,9171,1570810,00.html>
- Harris, T. (2016). How technology is hijacking your mind - from a magician and Google design ethicist. *Thrive Global*. Retrieved from <https://journal.thriveglobal.com/how-technology-hijacks-peoples-minds-from-a-magician-and-google-s-design-ethicist-56d62ef5edf3>
- Helmond, A. (2015). The platformization of the web: Making web data platform ready. *Social Media + Society*, July-December, 1-11.
- Hillis, K., Paasonen, S., & Petit, M. (2015). *Networked Affect*. Cambridge, MA: The MIT Press.
- Ingram, M. (2016). Facebook traffic to US News sites has fallen by double digits, report says. *Fortune*. Retrieved from <http://fortune.com/2016/08/16/facebook-traffic-media/>

- Jenkins, H. (2006). *Confronting the challenges of participatory culture: Media education for the 21st century*. Cambridge, MA: The MIT Press.
- Katz, M., & Shapiro, C. (1986). Technology adoption in the presence of network externalities. *Journal of Political Economy*, 94, 822-841.
- Khaldarova, I., & Pantii, M. (2016). Fake news: The narrative battle over the Ukrainian conflict. *Journalism Practice*, 10(7), 891-901.
- Kofoed, J., & Ringrose, J. (2012). Travelling and sticky affects: Exploring teens and sexualised cyberbullying through a Butlerian-Deleuzian-Guattarian lens. *Discourse: Studies in the Cultural Politics of Education*, 33(1), 5-20.
- Leong, L. (2017). Fighting fake news: How Google, Facebook and others are trying to stop it. *Techradar*. Retrieved from <http://www.techradar.com/news/fighting-fake-news-how-google-facebook-and-more-are-working-to-stop-it>
- Luke, A. (2013). Regrounding critical literacy: Representation, facts and reality. In M. R. Hawkins (Ed.), *Framing Languages and Literacies: Socially Situated Views and Perspectives* (pp. 136-148). New York, NY: Routledge.
- McGee, M. (2012). Facebook: 3.2 billion likes & comments everyday *Marketing Land*. Retrieved from <https://marketingland.com/facebook-3-2-billion-likes-comments-every-day-19978>
- Marchi, R. (2012). With Facebook, blogs and fake news, teens reject journalistic "objectivity". *Journal of Communication Inquiry*, 36(3), 246-262.
- Matsa, K. E., & Mitchell, A. (2014). 8 Takeaways about social media and news. *Pew Research Centre - Journalism & Media*. Retrieved from <http://www.journalism.org/2014/03/26/8-key-takeaways-about-social-media-and-news/>
- Mihailidis, P., & Viotty, S. (2017). Spreadable spectacle in digital culture: Civic expression, fake news, and the role of media literacies in "post-fact" society. *American Behavioural Scientist*. Retrieved from <http://journals.sagepub.com/doi/abs/10.1177/0002764217701217>
- Mirowski, P. (2014). *Never Let a Serious Crisis Go To Waste: How Neoliberalism Survived the Financial Meltdown*. London, England: Verso.
- Mitchem, M. (2008). Video social: Complex parasitical media. In G. Lovink, & S. Niederer (Eds.), *Video Vortex Reader: Responses to YouTube* (pp. 273-282). Amsterdam, The Netherlands: Institute of Network Cultures.
- Network Science in Education. (2017). *Network Literacy: Essential Concepts and Core Ideas*. Retrieved from <https://sites.google.com/a/binghamton.edu/netscied/teaching-learning/network-concepts>
- Mobasher, B., Cooley, R., & Srivastava, J. (2000). Automatic personalization based on web usage mining. *Communications of the ACM*, 43(8). Retrieved from <http://dl.acm.org/citation.cfm?id=345169>
- Nicolaou, A., & Giles, C. (2017). Public trust in media at all time low, research shows. *Financial Times*. Retrieved from <https://www.ft.com/content/fa332f58-d9bf-11e6-944b-e7eb37a6aa8e>
- Nikolov, D., Oliveira, D. F. M., Flammini, A., & Menczer, F. (2015). Measuring online social bubbles. *PeerJ Computer Science*, 1(38), 1-14.

- Oeldorf-Hirsch, A., & Sundar, S. (2015). Posting, commenting, and tagging: Effects of sharing news stories on Facebook. *Computers in Human Behaviour*, 44, 240-249.
- Park, S. (2016). Key findings: Digital news consumption in Australia. In J. Watkins (Ed.), *Digital News Report: Australia 2016*. Canberra, Australia: University of Canberra. Retrieved from: http://www.presscouncil.org.au/uploads/52321/ufiles/Fact_Sheets/digital-news-report-australia-2016.pdf
- Pogue, D. (2017). What Facebook is doing to combat fake news. *Scientific American*. Retrieved from <https://www.scientificamerican.com/article/pogue-what-facebook-is-doing-to-combat-fake-news/>
- Rieder, B. (2012). What is in PageRank? A historical and conceptual investigation of a recursive status index. *Computational Culture: A Journal of Software Studies*. Retrieved from http://computationalculture.net/2012/08/29/what_is_in_pagerank/
- Roberts, J. (2016). Why Facebook won't admit it's a media company. *Fortune*. Retrieved from <http://fortune.com/2016/11/14/facebook-zuckerberg-media/>
- Rohn, U. (2013). Social network sites across cultures and countries: Proximity and network effects. *Qualitative Research Reports in Communication*, 14(1), 28-34.
- Silverman, C. (2016). This analysis shows how viral fake election news stories outperformed real news on Facebook. *Buzzfeed News*. Retrieved from https://www.buzzfeed.com/craigsilverman/viral-fake-election-news-outperformed-real-news-on-facebook?utm_term=.todxjq3rN#.qdmV4Ao3X
- Spinney, L. (2017). The shared past that wasn't. *Nature*, 543, 168-171.
- Srnicek, N. (2017). *Platform Capitalism*. Malden, MA: Polity Press.
- Subramanian, S. (2017). Inside the Macedonian fake-news complex. *Wired*. Retrieved from <https://www.wired.com/2017/02/veles-macedonia-fake-news/>
- Sumner, E. M., Ruge-Jones, L., & Alcorn, D. (2017). A functional approach to the Facebook Like button: An exploration of meaning, interpersonal functionality, and potential response buttons. *New Media & Society, Advanced online edition*, 1-19.
- Wardle, C. (2017). Fake news. It's complicated. *First Draft*. Retrieved from <https://medium.com/1st-draft/fake-news-its-complicated-d0f773766c79#.y8p67xwww>