

The Influence of Different Social Media platform usage on Cyberactivism and Slacktivism

R. Schuman, 6293654

Supervisor: L. Mandemakers

Second supervisor: J. Slabbekoorn

Sociology department, Faculty of Social and Behavioural Sciences

Utrecht University, Netherlands



Abstract

The aim of this research is to study the relationship between the usage of different social media platforms and showing cyberactivist and slactivist behaviour. The emotional and complex contagion theory, the social identity theory and the information diffusion theory are used to predict the influence of Facebook, Twitter and Instagram usage. Using data from the American Trends Panel wave 35, provided by the Pew Research Center, logistic regression analyses were conducted to examine the relationship between Facebook, Twitter and Instagram usage with regards to showing cyberactivist and slactivist behaviour. Echo chambers and age were used to test for a possible moderating effect. On top of that, the relationship between slactivism and cyberactivism is examined. Results show that different social media platform usage significantly influence both slactivism and cyberactivism. However, slactivism significantly influences the likelihood of people participating in further cyberactivist activities and seems to mediate the relationship of platform usage and cyberactivism. Echo chambers are only of significant influence as a moderating variable on Facebook.

Keywords

Social Media, Facebook, Twitter, Instagram, Cyberactivism, Slacktivism, Echo chambers

Introduction

“The world has progressed beyond the marvels of the cordless telephone and pager, and we now enjoy instant communication and feedback via the Internet, smartphones and other wireless technologies” (Dubose, 2011, p. 112). This is a quote from Cheryl Dubose’s ‘The Social Media Revolution’, in which she talks about the growing popularity and use of social media tools such as Twitter and Facebook. Over the recent years social media has fully integrated in what O’reilly calls ‘Web 2.0’. Within ‘Web 2.0’ users are able to produce their own content and participate on the internet (O’reilly, 2009). ‘Web 2.0’ delivers the platform on which social media can exist, as it provides the encouragement for people to connect and collaborate with each other (Chun, Shulman, Sandoval & Hovy, 2010).

Social media is often used as a way of interaction and communication between individuals, where they can diffuse and create ideas and information in online networks (Nayar & Raheja, 2015). This way of interacting between users has become an important aspect in many people's lives (Oliverio, 2018). As of January 2021, approximately 3.6 billion people use social networking sites and this number is expected to keep increasing. Facebook is the highest ranked social media platform with an estimated 2.7 billion users. Instagram and Twitter follow with 1.2 billion and 353 million users respectively (Statista, 2021). These huge numbers of users indicate the importance of social media. On top of that, scholars claim that it is an unused source of information (Wigand, Wood & Mande, 2010).

In recent years, a wide variety of scholars have studied the different sides of social media (Kapoor et al., 2018). For example, previous research has focussed on the different effects that social media can have on the society (Akram & Kumir, 2017; Amedie, 2015; Siddiqui & Singh, 2016). However, after all these studies, scholars still do not know everything about social media and its users (Weller, 2016). Social media platforms increase the options to participate, cooperate and connect between governments and between citizens and the government (Sandoval-Almazán & Gil-Garcia, 2012). So, social media has become an influential mediator between government and citizens, mostly due to its rising popularity and distinctive features (Khan, Swar & Lee, 2014).

For example, after the disputed presidential election in 2007, a crisis broke out in Kenya which led to a ban of live broadcasts. Kenyans then opted for other ways of receiving and sharing information. Social media had played an extraordinary role during this censorship, as it enabled people to share their views with other citizens and individuals across the globe (Mäkinen & Kuira, 2008). In this case, social media has contributed to more accessible

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

information in decision making and it was a tool for increasing transparency in politics in spite of the media ban (Bertot, Jaeger & Grimes, 2010).

Sandoval-Almazan & Gil-Garcia categorize (2014) forms of protests, in which social media plays a big role, as cyberactivism. Cyberactivism can be explained as the use of the internet to push for or reach a goal, which can be done by raising electronic civil defiance (Prados, 2012). So, people take part in cyberactivism by using digital technologies to achieve social and political change (Joyce, 2010). Many scholars have stated that society is currently seeing an increase in activism related to social media, which leads to a larger interest in the exact role that it plays in the facilitation of activism (Lee & Hsieh, 2013; Allsop, 2016). Over the recent years, there have been several successful instances of cyberactivism.

For example, in 2011 there were various protests and revolutions that are now known as the Arab Spring. During these protests, like in Egypt and Tunisia, social media made a huge difference as it played a powerful role in the mobilization of people to stand up and protest (Frangonikolopoulos & Chapsos, 2012; Howard & Hussain, 2011). The *indignados* movement in Spain is a good example of a protest that was impacted by a social media platform. In this uprising, Twitter was used to diffuse information across a large online network about the locations of protest events. Twitter did not only enable people to take part in cyberactivism, but it also mobilized people to protest in the real world (González-Bailón, Borge-Holthoefer & Moreno, 2013). However, the relations between online activism and offline activism can become inconsistent. This is the case when activities that either strengthen or diminish activism develop differently online than offline (Greijdanus et al., 2020).

More recent examples, in which cyberactivism has been successful, are the events surrounding the Black Lives Matter (BLM) movement. After the 2014 shooting of Michael Brown in Ferguson, Missouri, the hashtag ‘#Ferguson became extremely popular on Twitter. The hashtag became a way for people to collect information about the case as it kept evolving (Bonilla & Rosa, 2015). Besides #Ferguson, the #BlackLivesMatter hashtag, became a type of beacon that mobilized a lot of people to start protesting (Carney, 2016). Social media serves as a platform for involvement and is able to increase the assembly of protestors, which broadens the mobilization and enlarges the support for a movement (Mundt, Ross & Burnett, 2018). With the death of George Floyd in 2020, the #BlackLivesMatter hashtag was used again to represent the movement and as a signal for action (Giorgi et al., 2020).

The main idea of utopianism is that the internet and its network have simplified the way all people can communicate (Fisher & Wright, 2001). This is mostly due to the internet's capacity to form new communities, personal and interpersonal relations, as it frees an

individual from having to meet another person in a physical position (Rheingold, 1993). In a later article Rheingold (2000) mentions that through the network that the internet creates democratic involvement can arise, which can be seen in cyberactivism.

However, the online activities that are part of cyberactivism have been criticized as 'slacktivism' (Lee & Hsieh, 2013). The word combination of 'slack' and 'activism' proposes that online political actions require less time and commitment. These slacktivist activities, that occur via social media, are low-risk and low-cost (Rotman et al., 2011). These slacktivists only take part in these political actions to increase their own egoistical sense of satisfaction (Morozov, 2009; Christensen, 2011). As a result, slacktivism often goes without mobilization or a showable effect in the resolvment of political or social issues (Glenn, 2015). Examples of slacktivist actions are simply liking or joining a Facebook group, forwarding/retweeting posts on Twitter and changing one's profile picture all to show support for a cause (Lee & Hsieh, 2013; Gustafsson, 2012). Doing something good, like partaking in slacktivism, allows people to slack off on following actions with less guilt (Lee & Hsieh, 2013). The question that arises here is: does slacktivism inhibit further cyberactivism?

A possible answer to this question could be formed from a dystopian viewpoint. Dystopianism focusses on how technologies, like the internet, create a social order that is harmful and damaging (Kling, 1996). According to dystopians, democracy would fall apart because society becomes polarized and people fall into isolation (Fisher & Wright, 2001). Therefore, dystopian writers expect that the internet disturbs political life, instead of enabling political engagement (Fisher & Wright, 2001).

Despite the more negative undertone, slacktivism does allow people to reach a huge international audience in a cost-effective manner (Glenn, 2015). Every small effort helps, ranging from creating awareness, stimulating people's interests to raising funds. When time passes, these efforts could lead to more subsequent political actions (Skoric, 2012). For example, Lee and Hsieh (2013) found that subsequent action, another form of (cyber)activism, is connected to slacktivism, as people who already partake in slacktivism are prompted to stay consistent. Moreover, the diffusion of information or awareness of a political or social cause, is in many cases the first move in resolving the problem or facilitating a movement for change (Goldsborough, 2011). In the case of BLM, the hashtag #BlackLivesMatter was instrumental in generating awareness and altering social norms (Madison & Klang, 2020).

What stands out in the research on social media is that some platforms are notably more present in previous research than others. When comparing studies, it becomes clear that less publications exist on Instagram than on Facebook and Twitter (Weller, 2016). The same applies

for research on activism. The research on the *indignados* movement only looked at Twitter (González-Bailón et al., 2013). A study on the Egyptian uprising of 2011 looked at Facebook, Twitter and YouTube as tools for the protest movement (Khamis & Vaughn, 2012). Another example is the study of Sandoval-Alamazán and Gil-Garcia (2013) on how Twitter and Youtube were used in the Mexican political movement “I’m Number 132”.

It becomes clear that each social media platform can influence activism and political movements in a different way. In spite of its popularity, research on Instagram remains limited (Manikonda, Hu & Kambhampati, 2014). The existing literature is divided when it comes to the impact of social media, specifically with image-based platforms (Trifiro, 2018). Nonetheless, earlier research analysed the role of political party Instagram use in the Spanish elections in 2016 (Turnbull-Dugarte, 2019). However, little research has been done on the role that images play in mobilizing participation for online protests and social movements (Casas & Williams, 2019). That is why gaining a better and deeper understanding of Instagram is important, as it will give us better insights about its relation to cyberactivism and slacktivism. On top of that, what is lacking in current scientific literature is a focus on differences across different social media platforms and its activist practices (Comunello, Mulargia & Parisi, 2016). Getting a better understanding of these differences in advantages and limitations can benefit activists who use these platforms for activist practices. That is why Facebook, Twitter and Instagram will be analysed in this research.

However, the rise of echo chambers has become an issue when it comes to the political communication within democratic countries (Garimella, Morales, Gionis & Mathioudakis, 2018). Echo chambers is a term that refers to instances where people “*hear their own voice*” (Garimella, 2018, p. 16). On social media, echo chambers refer to the instances in which the users interact with content that is similar to their own views (Garimella et al., 2018). These echo chambers can originate through polarization (Nelimarkka, Laaksonen & Semaan, 2018). Previous research has confirmed that individuals gravitate to choosing news from outlets that share their political opinions (Garrett, 2009). Social media platforms can facilitate more selective exposure amongst its users, which could consist of false or deceptive information (Bakshy, Messing & Adamic, 2015).

During the campaign period for the 2016 presidential elections in the United States, fake news was spread and shared amongst U.S. citizens (Bovet & Makse, 2019; Grinberg, Joseph, Friedland, Thompson & Lazer, 2019). It was found that individuals are a lot more likely to believe information that favours their candidate (Allcott & Gentzkow, 2017). Echo chambers have previously been utilized to describe the way in which information has become a partisan

choice (Garrett, 2009). By targeting these (hyper-)partisan views, fake news is playing into the fears and preconceptions of individuals to affect their behaviour when it comes to voting. That is why fake news is an expanding threat to all democracies (Lee, 2019).

Nevertheless, previous studies show that the prevalence of these echo chambers, when it comes to information consumption, are frequently overblown (Tucker et al., 2018). Other scholars argued that due to the larger choice and social networks, people are exposed to more varying information. This would in turn break the pattern of limited/conforming consumption patterns (Flaxman, Goel & Rao, 2016). Earlier research found that individuals have ties within online social networks that connect them with individuals on the opposite fraction of the political spectrum. As a result of these ties, individuals are introduced to the possibility of discovering more diverse content (Goel, Mason & Watts, 2010). This opinion heterogeneity, which is the opposite of echo chambers, can drive and empower collective action (Guidetti, Cavazza & Graziani, 2016). This collective action is seen in cyberactivism and slacktivism, so how do echo chambers relate to this and does this relation differ per platform?

It's clear that there has been extensive research on the subject of network structure and echo chambers, though many of them are mostly descriptive (Bright, 2017). This means we know about the outcomes that can appear through echo chambers, but we know less about the underlying processes that can explain these different outcomes (Bright, 2017). With the growing importance of social media networks in the formation of political viewpoints and the exposure of information to people, the relevance of echo chambers is imagined to grow (Bright, 2017). Self-segregation into echo chambers would reportedly cause a difference in online activism (Greijdanus et al., 2020). That is why it would be interesting to see if these created differences in online activism, for example between slacktivism and cyberactivism, are present on different social media platforms.

So, it is known that social media can play a big role in activism about political and social issues. With cyberactivism being criticized as slacktivism, it is important to see how the usage of different social media platforms relate to this. With regards to these different platforms, it would be interesting to see if there is a moderating effect of echo chambers. On top of that, it would be intriguing to see if users who participate in actions that would classify as slacktivism still go on to partake in further levels of cyberactivism. That is why this study will revolve around the following question:

To what extent does usage of different social media platforms influence cyberactivism and slacktivism? And to what extent is this influence enhanced by echo chamber effects?

Theory

Instagram

It has been established that Instagram is primarily used for social networking with friends (Hu, Manikonda & Kambhampati, 2014). In an online social network, people are able to express their feelings instantly through images or text (Wang et al., 2015). Most previous research methods focussed on textual information, but those methods are less qualified to study emotion dynamics in social networks that are image-based (Wang et al., 2015). Instagram posts are primarily in the form of images or videos (de Vries, Möller, Wieringa, Eigenraam & Hamelink, 2018). Researchers have stated that emotional contagion is present in image-based social networks (Yang, Jia, Wu & Tang, 2016). Emotional contagion can be defined as a process where one individual or group has a conscious or unconscious influence on the emotions or behaviour of other individuals or groups (Schoenewolf, 1990). What is seen here is that emotional contagion is a sort of social influence (Barsade, 2002). One of the processes of the social influence theory is compliance, which revolves around the notion that people will comply with the individuals that are important to them (Zhou, 2011). According to Rogers (2003), this interdependency between individuals creates pathways of influence that allow behaviour to spread.

Within a social network, one's emotions can be influenced by other individuals from their network (Wang et al., 2015). Research has found that emotional contagion can arise when looking at social media posts (de Vries et al., 2018). In other words, one's emotional state can be passed on to others, through Instagram's images, which results in them having similar emotions (Kramer, Guillory & Hancock, 2014). On Instagram the way people socially connect is through following other users (Manikonda et al., 2014). Under the notion of the social influence theory, collective action is more a process of contagion than of own motivations (González-Bailón et al., 2013). Thus, it could be stated that individuals who are exposed to emotions of people that they follow, are likely to comply with those emotions, which could stimulate collective action.

Centola (2018) stated that a diffusion process relies on several characteristics; the type of contagion (simple or complex), the exposure level to behaviour or information and the choice to accept the behaviour or information. With simple contagion, the person who gets infected has been exposed to the behaviour multiple times. With complex contagion, this individual needs to be exposed to multiple sources for the behaviour to spread. So, complex contagion is about the number of sources needed for activation, not the amount of exposures

(Centola & Macy, 2007). A contagion becomes complex when a person needs to be exposed to two or more sources of activation (Centola & Macy, 2007). Social movements often have thresholds higher than one when it comes to the contagion of behaviour to spread (Centola & Macy, 2007).

Earlier research also found that social movements and cyberactivism contain an emotional nature (Parsloe & Holton, 2018). Casas & Williams (2019) found evidence that images have a positive mobilizing effect when it comes to online protest activities. On top of that, images trigger stronger emotional reactions than its counterpart of spoken or noted down information (Graber, 1996; Grabe & Bucy, 2009).

It is clear that scholars have acknowledged that emotions can play an important role in the working of social movement activism (Brown & Pickerill, 2009). Since Instagram is a medium that primarily revolves around images, emotional reactions could be triggered. These emotional reactions/states can then spread, through the mechanism of emotional contagion, to the rest of an individual's Instagram network. According to complex contagion, there has to be exposure to multiple Instagram posts in order for the behaviour to spread. Users mostly look at images from their home page, which consist of multiple photos from their friends (Hu et al., 2014). So, Instagram seems to provide the option for multiple source exposure. These emotional reactions can then in turn lead to a mobilizing effect on online protest activity, which contributes to cyberactivism. That is why it's expected that: (H1) *Instagram usage has a positive effect on cyberactivism.*

Engagement with Instagram pictures have previously been categorized as engagement with slacktivism (Noland, 2020). These online activities, for example liking or sharing social media posts, are considered as low-threshold activities (Schumann & Klein, 2015). So, people do not have to be exposed to complex contagion for slacktivist behaviour to take place. Since social movements require complex contagion, it can be stated that the low-effort slacktivist activities are less likely to lead to social movements. Research found that when the low-threshold online activities satisfy the need for group improvement, other similar behaviour is derailed (Schumann & Klein, 2015). On top of that, slacktivists often miss some kind of emotional fire that will force a certain change in an issue (McCafferty, 2011). Since it is expected that Instagram contains strong cyberactivist behaviour, it is expected that slacktivist behaviour is less existent. Instagram provides the emotions and complex contagion that allow for more cyberactivism instead of slacktivism. Therefore, it is hypothesized that: (H2) *Instagram usage has a positive effect on slacktivism, but this effect is weaker than for cyberactivism.*

Facebook

According to a study by Nadkarni & Hofmann (2012), Facebook use is mostly driven by two basic social needs: the first one being the need for self-presentation, which revolves around the process of wanting to impress people. Facebook has the ability to empower people to actualize the identities they want for themselves, but can't actualize in the offline world (Skoric, 2012). This need seems to steer user's behaviours, as their activities are consistent with their aspired impression effects (Nadkarni & Hofmann, 2012).

The second social need that drives Facebook use is the need to belong, which refers to the internal desire to be around people and be socially accepted. The social identity theory argues that individuals tend to categorize themselves and people into different social categories. The characteristics of the category that they belong to, allow an individual to gain a definition of who they are (Tajfel, Turner, Austin & Worchel, 1979; Hogg, Terry & White, 1995). Bagozzi & Dholakia (2002) state that social identity is a key variable of social influence. When looking at the social influence theory's three main processes, identification is one of them (Kelman, 1974). Identification also revolves around someone's feeling of belonging to a group or community and how that affects their behaviour (Zhou, 2011).

When a group is threatened or its hierarchy feels unsteady, the social identity of the members of a group can become stronger (Branscombe, Schmitt & Harvey, 1999; Tajfel et al., 1979). These stronger socially identified people are more likely to perceive outcomes through their own group terms. This results in an increase in the likeliness of these people noticing discrimination towards their group and taking part in collective action (Branscombe, Schmitt & Harvey, 1999). This stronger sense of group identification and higher likeliness to feel group threat or injustice could explain how collective action can be initiated in Facebook groups. The option to blame another group, which could be the government, combined with people noticing shared injustice within their group is of remarkable importance for collective action (Simon & Klandermans, 2001). Previous research indicates that more Facebook use leads to higher levels of political activism (Couto & Modesto, 2020). So, embracing one's social identity can not only strengthen activism, but the identity itself can also be reinforced by activism (Foster, Tassone & Matheson, 2020).

Since Facebook is primarily used for a need to belong, it can be argued that people interact with each other under the notions of social identity theory. Researchers have stated that online identities, like those on Facebook, are formed similar as offline identities (Zhang, Jiang & Carroll, 2012). Facebook contains activities that form social interactions, in which identities can be presented, on individual, group and community levels. Examples of these activities are

status updates, posting on walls and joining Facebook groups/communities. Zhang, Jiang & Carroll (2012) also found that Facebook groups can differ in the amount of group identification, with smaller groups containing higher levels and large communities containing lower levels.

Combined with the participation in effortless activities, like changing one's profile picture or joining a group page to show support, the narcissistic motives for Facebook use make users an easy target to become slacktivists (Skoric, 2012). These narcissistic motives can originate through the need for self-representation and need to belong. Social identity can enforce cyberactivism, but Facebook's primarily slacktivist activities and egoistical motivations for usage, cause that the following two hypotheses are formulated as: (H3) *Facebook use has a positive effect on cyberactivism, but this effect is weaker than for slacktivism* and (H4) *Facebook use has a positive effect on slacktivism*.

Twitter

Twitter can be seen as an information network and a social network. Twitter's information network revolves around the diffusion of information along edges. The social network revolves around the social ties that users create with friends or family (Myers, Sharma, Gupta & Lin, 2014). According to Langman (2005), there is almost no difference between communities that are organized online and those that are organized through physical relations. This means that offline mechanisms can also be used for an analysis of Twitter. Granovetter (1973) states that bridges, ties that provide the only path between two other people, allow information or influence to spread between the connected people. On Twitter, individuals develop ties with other individuals by following their user accounts (Lerman & Ghosh, 2010).

During the Arab Spring, young Arabic people used Twitter to mobilize people in the revolutions in Tunisia, Syria and Egypt, among others. This can be explained through Twitter's information network. A look at Twitter's network reveals that users have a short distance between each other, with an average path length between users of 4.12 (Kwak, Lee, Park & Moon, 2010). On top of that, information flows over less than 5 intermediaries between 93.5% of the user pairs (Kwak et al., 2010). With the use of bridges that allow a global spread through the connection of users that otherwise would not be connected, fast diffusion of information is made possible (González-Bailón et al., 2013).

This fast diffusion of information and interconnectedness between users allows for a new development with regards to time limits. The cyberactivism process can develop faster, as it can be the outcome of instant action after seeing information (Illia, 2003). Previous research explains that efficient mobilization depends on the flow of information (Kiss & Rosa-García,

2011). With more information at one's disposal, the chance of success of a revolution increases (Kiss & Rosa-García, 2011). The information increases the assets that individuals have available when they are in political and social struggles (Carty & Onyett, 2006). Twitter is not only seen as a communication medium, but also as a presiding organizing mechanism, that essentially even structures a social movement (Segeberg & Bennett, 2011).

The use of Twitter enabled the activists to successfully organize their actions and communicate news to the people who could not receive this information from other state-controlled media (Arafa & Armstrong, 2016). The mainstream media, like the state-controlled media, has limited possibilities to pass on mobilizing information (Valenzuela, 2013). Mobilizing information can come in three forms: identificational (necessary names and contact information for political action), locational (date and location of protests) and tactical (instructions on how to get involved) (Lemert, 1981). Most mainstream media outlets see this kind of information as a violation of their neutrality norms (Hoffman, 2006). Social media facilitates the possibilities for people to see all these types of mobilizing information (Valenzuela, 2013).

Twitter is also a social network, which is seen in the relations that are formed by following friends and family (Myers, Sharma, Gupta & Lin, 2014). This allows for the possibility of the diffusion of behaviour. On Twitter, users can show their feelings directly through the use of mostly text, but also images (Wang et al., 2015). Previous research proved that emotional contagion can exist in a Twitter network. This study looked at the grief a celebrity diffused across his social network of fans and friends by use of a hashtag. Information and opinions on Twitter are mostly shared through hashtags. Consequently, his community became more connected in their relationships (Chong, 2016). This increase in connection could also lead to a stronger sense of in-group identification, which could explain collective action. So, it is possible that emotions can spread through Twitter's online social network by the use of hashtags, which can explain the adoption of cyberactivist behaviour.

On top of the mobilization options Twitter offers, it was found that Twitter actually enables people to take part in cyberactivism (González-Bailón et al., 2013). Besides the evidence of the relationship between cyberactivism and Twitter, previous research has pointed out several cases of slacktivism. Slacktivists are described as ignorant, indolent or naïve when it comes to Twitter (Cook, Waugh, Abdipannah, Hashemi & Rahman, 2014). For example, during the Iranian elections in 2009, Twitter users had blatantly mistaken a rise of made-up blog feeds and bots for real political narratives (Christensen., C, 2011). On top of that, (re)tweeting hashtags to trigger social change has been defined as hashtag activism (Dadas,

2017). Social commentators have described this form of activism as slacktivism because tweeting hashtags involves little effort (Hampton, 2015).

However, these are a few instances where slacktivism seems to occur. On top of that, with Twitter's hashtag features, it might have lowered the effort needed for activism, but it does not lower the impact of social movements. Hashtag activism has actually been of influence on mobilizing offline action and raising awareness (Simpson, 2018). This is in line with other previous studies that stated that Twitter has often played a crucial role in the mobilization of people. This is due to Twitter's network structure that is very useful for the diffusion of information and even emotions, which plays a crucial role in the cyberactivism process. That is why the following hypotheses are formulated as: (H5) *Twitter use has a positive effect on cyberactivism* and (H6): *Twitter use has a positive effect on slacktivism, but this effect is weaker than for cyberactivism.*

Slacktivism

Slacktivismists do not take the time to contemplate on the value their actions can have. This is because, when individuals are looking for an effortless way to feel like they are contributing to a cause, simply liking or sharing is not that difficult (Landman, 2008). With this desire to contribute with minimal effort, these slacktivismists are perceived as unwilling to engage in more challenging activities that are required to accomplish real political objectives (Christensen, 2011). On top of that, Allsop (2016) argues that slacktivismists view social media as encouraging activities that are rather ineffective and often replace, instead of contributing, to further political behaviour and participation. This can be explained through the basic psychological need of satisfaction (Chen et al., 2015). Partaking in political actions, like slacktivismists do, increases their egotistical sense of satisfaction (Morozov, 2009; Christensen, 2011). When a slacktivismist feels satisfied, that person will no longer feel the need of motivation to take further action (Lee & Hsieh, 2013). Hence why the seventh hypothesis is formulated as: (H7) *Slacktivism has a negative effect on further cyberactivism.*

Echo Chambers

Echo chambers can be seen as a result of polarization, as they are clusters of people that think alike and are more segregated from the rest of a network (Törnberg, 2018). The social identity theory is able to provide an explanation to why people are inclined to polarize (Warner, 2010). Since people want a positive definition of themselves, they tend to think positively about the groups that are close to their perceived identity (Warner, 2010). This, in combination with the

desire to categorize everything in groups and think bad of out-groups, activates a proneness to polarization (Warner, 2010). Recent studies have found that echo chambers exist on Facebook, Instagram and Twitter (Cinelli, Morales, Galeazzi, Quattrociocchi & Starnini, 2020; Parmelee & Roman, 2020). The way in which the algorithm of a social media platform forms the spread of content, can reinforce echo chambers (Pariser, 2011).

Centola and Macy (2007) state that news or ideas become more persuasive when more individuals proclaim it. That is why online news or ideas can be distinguished as complex contagions (Törnberg, 2018). The only condition that individuals need to meet to be ‘infected’, is that they are part of a social network that offers sources of social reinforcement (Centola, 2018). Echo chambers reinforce the ideas and opinions of the people that are in it (Törnberg, 2018). In other words, echo chambers are able to provide the social reinforcement needed for individuals to be open for contagion.

Törnberg (2018) states that echo chambers may contain lower thresholds for its members than other networks. This could be explained through homophily, which states that individuals in a homogeneous network are more likely to have the same thresholds for activation. Homophily can be described as a concept that revolves around the notion that contact with similar people happens at a faster rate than between people who do not have similar ideas (McPherson, Smith-Lovin & Cook, 2001). Since echo chambers contain people who are like-minded, it could be argued that an echo chamber is a homogeneous network.

Building on the idea of Törnberg (2018) that people in homogeneous networks have lower thresholds, it can be derived that individuals in echo chambers are more likely to adopt behaviour. In combination with the social reinforcement that echo chambers provide, it is expected that echo chambers enhance the rate at which users of Facebook, Twitter and Instagram become ‘infected’ with cyberactivist or slacktivist behaviour. The differences between the contagion for slacktivism and cyberactivism, as discussed earlier, could also be of influence on the effect strength of echo chambers. Hence why it is hypothesized that: (H8): *The effect of the usage of social media platforms on cyberactivism and slacktivism becomes stronger when a person is part of an echo chamber* and (H9): *The effect of echo chambers is stronger for cyberactivism than for slacktivism.*

Age

Previous research has pointed out that young adults, ages 18 to 29, use social media the most (Perrin, 2015). The use per platform differs with age, but people aged 18-29 are the biggest age group on Facebook, Twitter and Instagram (Greenwood, Perrin & Duggan, 2016). Different

age groups use social media for very different reasons and goals (Kim, Sin & Tsai, 2014). Younger people significantly use social media more frequently for political reasons than older people (Holt, Shehata, Strömbäck & Ljungberg, 2013). On top of that, younger people communicate more online and share content more frequently (Holt et al., 2013; Lenhart, Purcell, Smith & Zickuhr, 2010).

The increase of younger people using the internet, causes them to be more likely to participate in online politics (Mossberger, 2009). So, younger people are more inclined to engage with politics on the internet and this increases the political participation amongst them. Furthermore, if these younger people remain on this course of political participation online, it could even result in more political interest and activity later on (Mossberger, 2009). This online political participation can be categorized as an activity that is part of cyberactivism and slacktivism.

As stated by Vegh (2003), online activism is a movement that depends on the internet and is politically motivated. So, with younger people being more politically active on social media and the internet than older people, we could state that younger people are more likely to engage in levels of cyberactivism and slacktivism. An example is the Egyptian revolution, in which the active internet users, who were mostly youth, were the moving force behind it (Khamis & Vaughn, 2011). When it comes to slacktivism, younger people are more likely to fit the profile of a slacktivist (Skoric, 2012). Previous research has determined that civic skills with lower devotion of time and effort are more attractive to younger people (Vitak et al., 2011). Therefore, it is hypothesised that: (H10) *The effect of the usage of social media platforms on cyberactivism and slacktivism becomes stronger the younger a person is.*

Method

Data

For this research, a dataset collected in commission of the Pew Research Center (PRC) will be used. In 2014, PRC created the American Trends Panel (ATP), a national representative panel that consists of randomly selected U.S. adults. GfK Custom Research, LCC (GfK) conducted the 35th wave of the panel survey during the period of May 29 to June 11, 2018. The questionnaire that was used was created by the PRC in collaboration with GfK. The target population are people who are aged 18 and over and live in the United States, Alaska and Hawaii included. The panellists of the ATP were collected from three big national and overlapping surveys from the PRC. In 2018, the ATP had 9942 members, but 336 of them were not included in the panel transition to GfK. On top of that, another 4120 members of the ATP were not added to the sample due to inactivity or withdrawals. So, a total sample of 5,486 people were sent invitations with information regarding the start of a new wave of data collection.

The invitations were sent in two different launches on May 29 and 30, 2018. If the panellists did not respond to the survey, they received four email or SMS reminders, with the last one being sent out on June 8, 2018. The sample was split into two different forms, to ensure better control over the demographics of each form. After all the reminders, there was a total response of 4594 participants. The interviews were conducted in the preferred language of the participant, being English or Spanish. If a participant did not use either Facebook, Twitter or Instagram and had a missing value on any of the variables used in this research, they were filtered out of the data. This resulted in a total N=4057.

This dataset is particularly useful for this research as it contains information about people's social media use and online activist behaviour. Through several questions, participants are asked what social media platforms they use, including Facebook, Twitter and Instagram. On top of that, the participants were also asked if they took part in any activities that can be characterized as cyberactivism or slacktivism. In this paper, the social media platforms Facebook, Twitter and Instagram are the independent variables and cyberactivism and slacktivism are the dependent variables. The dataset also provides questions that touch on indicators of echo chambers and questions with regards to the characteristics of the respondents. These characteristics can be used as controlling and moderating variables in the analysis.

Social media platforms

The participants were asked the following question: *“Do you use any of the following social media sites?”* The answer categories consist of six options: *“YouTube”, “Snapchat”, “Facebook”, “Instagram”, “Twitter”* and *“other”*. The respondents were asked to check all the platforms that apply to them. If the participants used any of the social media sites, they were given the name $SNSUSER = 1$. If they did not use any social media sites, they were given the name $SNSUSER = 0$. For this research, the participants were filtered with $SNSUSER = 1$, to ensure that users used either Facebook, Twitter, Instagram or a combination of the three. The platforms were coded into three separate variables. All the questions used for further variables were only asked and used when participants belonged to $SNSUSER = 1$.

Cyberactivism and Slacktivism

The indicators for cyberactivism and slacktivism are found in the question: *“Have you done any of the following activities on social media in the past year?”* After this question, the respondents were given five sub-questions that allow for a distinction between activities that can be categorized as cyberactivism or slacktivism. The first three sub-questions are used to operationalize slacktivism: *“Changed your profile picture to show support for a cause”, “Used hashtags related to a political or social issue”* and *“Taken part in a group that shares an interest in an issue or a cause”*.

The remaining two sub-questions are used to operationalize cyberactivism: *“Encouraged others to take action on issues that are important to you”* and *“Looked for information about rallies or protests happening in your area”*. All five questions had the same two answer options: *“1 = Have done this in the past year”* and *“2 = Have not done this in the past year”*. The answer options were recoded in the following order: *“0 = Have not done this in the past year”* and *“1 = Have done this in the past year”*. Before starting with regressions, a reliability analysis was used to see the correlation levels between the dependent variables. The vitality subscale was found to be reliable ($\alpha = .712$).

Echo chambers

This variable has been operationalized with the use of two questions, the first one being: *“In the past year, have you changed your views about a political or social issue because of something you saw on social media?”* For this question, there were two answer options: *“1 = Have changed my views”* and *“2 = Have not changed my views”* and was recoded into: *“0 = Have not changed my views”* and *“1 = Have changed my views”*.

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

The second question that will be used as an indicator for echo chambers is: *“How important, if at all, is social media to you PERSONALLY when it comes to the following things?”*. There are three sub-questions underneath this question: *“Finding other people who share your views about important issues”*, *“Getting involved with political or social issues that are important to you”* and *“Giving you a venue to express your political opinions”*. All three sub-questions had four answer options categorized as a Likert scale ranging from: *“1 = Very important”*, *“2 = Somewhat important”*, *“3 = Not very important”* and *“4 = Not important at all”*. These answer options were recorded into: *“3 = Very important”*, *“2 = Somewhat important”*, *“1 = Not very important”* and *“0 = Not important at all”*.

These questions were all added into one scale variable for echo chambers. The higher the score, the more likely people are to be part of an echo chamber. To see if the indicators of echo chambers correlated, before turning them into one variable, a reliability analysis was performed. This vitality subscale was reliable ($\alpha=.790$).

Age

Age was categorized into four parts: *“1 = 18 - 29”*, *“2 = 30 - 49”*, *“3 = 50 - 64”* and *“4 = 65+”*. This variable has been recorded as follows: *“0 = 18 - 29”*, *“1 = 30 - 49”*, *“2 = 50 - 64”* and *“3 = 65+”*.

Controlling variables

To analyse if the effect of the usage of different social media platforms on cyberactivism and slacktivism changes when adding other variables into the regression analysis, a few controlling variables are used. The digital divide refers to the option to use the internet effectively. Internet use seems to be universal, but many groups are still excluded. More specifically, people from lower income communities meet barriers that prohibit them from using the internet in an organized way (McNutt & Menon, 2008). So, it is expected that people from lower income communities will be less likely to use the internet and therefore are also less likely to participate in cyberactivism and slacktivism.

With regards to gender, previous research found that internet participation seems to be gender neutral in Finland (Christensen, 2012). To see if this also holds up in an American context, gender will be added to the regression analysis. Lastly, it has been established that education has a considerable impact on the tendency to be active and that it can be seen as a proxy for civic capacities (Christensen, 2012). So, higher educated individuals may be more prone to partake in cyberactivism and slacktivism.

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

Income is categorized into three groups: “1 = \$75,000+”, “2 = \$30,000 - \$74,999” and “3 = < \$30,000”. This variable has been recoded as: “0 = < \$30,000”, “1 = \$30,000 - \$74,999” and “2 = \$75,000+”. Gender is a dichotomous variable with “1 = Male” and “2 = Female”, this variable has been recoded into “0 = Female” and “1 = Male”. Education is also categorized into three groups: “1 = College graduate”, “2 = Some college” and “3 = Highschool graduate or less”. This variable has been recoded into: “0 = Highschool graduate or less”, “1 = Some college” and “2 = College graduate”.

Logistic regression analysis

Due to the dependent variables that are dichotomous, a logistic regression analysis will be performed. A logistic regression will provide an insight on how well the independent variables predicts the dependent variable and show the nature of the relationship, being either positive or negative. The first regression will have the three social media platforms as the independent variables and will be used to get an insight in the influence on the dependent variable, being the three indicators for slacktivism. The same will be done with the two indicators for cyberactivism as the dependent variable. Within these models, the effects will be controlled by income, education and gender. The indicators for slacktivism will be added as an independent variable to see its influence on the indicators for cyberactivism. Lastly, echo chambers and age will be added to test for a moderation effect.

Results

Descriptive statistics

In table one the descriptive statistics of all the variables included in this analysis are presented. The total N= 4057, shows how many participants used either Facebook, Twitter, Instagram or a combination of the three. More specifically, most respondents used Facebook (M = .80), Twitter (M = .26) and Instagram (M = .32). With regards to the characteristics of these participants, there is an equal distribution between male and female (M = .50). The average age has a score of 1.73, meaning that participants are more likely to be aged between 50 - 64 years old. The mean income is 1.25, participants are likely to have an income of 30,000 -74,999 dollars a year. The average education level lies at 1.39, which means that most participants are likely to have an education level between some college and college graduate.

The participants score very low on all indicators of echo chambers, echo change views (M = .13), echo share views (M = 1.16), echo involve (M = 1.16) and echo venue (M = 1.04).

This means that participants are less likely to be part of an echo chamber. For the dependent variables, most participants answer that they have not done any of the indicators in the past year.

Table 1. Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation*
<i>Independent variables</i>					
Facebook	4057	0	1	.80	-
Twitter	4057	0	1	.26	-
Instagram	4057	0	1	.32	-
<i>Dependent variables</i>					
<i>Slacktivism:</i>					
Changed profile picture	4057	0	1	.19	-
Used hashtags	4057	0	1	.14	-
Taken part in group	4057	0	1	.42	-
<i>Cyberactivism:</i>					
Encouraged others	4057	0	1	.38	-
Looked for info of area	4057	0	1	.23	-
<i>Moderating variables</i>					
<i>Echo chambers</i>					
Echo change views	4057	0	1	.13	-
Echo share views	4057	0	3	1.16	.99
Echo involve	4057	0	3	1.16	1.01
Echo venue	4057	0	3	1.04	1.01
Age	4057	0	3	1.73	.97
<i>Control variables</i>					
Income	4057	0	2	1.25	.77
Gender	4057	0	1	.50	-
Education	4057	0	2	1.39	.74

*Not reported for dichotomous variables.

Facebook, Twitter and Instagram on slacktivism

The logistic regressions with Facebook, Twitter and Instagram as the independent variables and the three indicators for slacktivism as the dependent variables, provided the following results. All these results can be found in table two. The first model for the analysis on *Changed profile picture* resulted in an omnibus model of, χ^2 (df = 3, N = 4057) = 244,15, $p < .001$, Nagelkerke $R^2 = .09$. Facebook and Instagram use had a significant positive influence on people changing their profile picture to support a certain cause (*Facebook*, $OR = 4.78$, $CI = 3.43 - 6.66$, $p < .001$) (*Instagram*, $OR = 2.04$, $CI = 1.72 - 2.43$, $p < .001$). Twitter use does not have

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

a significant influence ($OR = 1.12$, $CI = .93 - 1.35$, $p = .236$). When the control variables were added, the effects of Facebook and Instagram use slightly decreased, but remained significant. (*Facebook*, $OR = 4.40$, $CI = 3.16 - 6.14$, $p < .001$) (*Instagram*, $OR = 1.95$, $CI = 1.64 - 2.33$, $p < .001$). The influence of Twitter use increases and becomes significant ($OR = 1.24$, $CI = 1.03 - 1.51$, $p = .025$).

The omnibus model for *Used hashtags* gave the following results, χ^2 ($df = 3$, $N = 4057$) = 379.23, $p < .001$, Nagelkerke $R^2 = .16$. All three social media platforms have a significant positive influence on participants using a hashtag that is related to a political or social issue (*Facebook*, $OR = 1.41$, $CI = 1.07 - 1.87$, $p = .015$) (*Twitter*, $OR = 3.45$, $CI = 2.84 - 4.20$, $p < .001$) (*Instagram*, $OR = 2.49$, $CI = 2.04 - 3.03$, $p < .001$). After adding the control variables, the effects either decreased or increased slightly and remained significant (*Facebook*, $OR = 1.38$, $CI = 1.05 - 1.83$, $p = .023$) (*Twitter*, $OR = 3.63$, $CI = 2.97 - 4.44$, $p < .001$) (*Instagram*, $OR = 2.46$, $CI = 2.02 - 3.00$, $p < .001$).

Taken part in group gave the following omnibus model, χ^2 ($df = 3$, $N = 4057$) = 277.67, $p < .001$, Nagelkerke $R^2 = .09$. All three social media platforms have a significant positive influence on participants taking part in a group that shares an interest in an issue or a cause (*Facebook*, $OR = 3.11$, $CI = 2.58 - 3.74$, $p < .001$) (*Twitter*, $OR = 1.52$, $CI = 1.30 - 1.77$, $p < .001$) (*Instagram*, $OR = 1.40$, $CI = 1.21 - 1.62$, $p < .001$). With the control variables added, all three platforms remained significant and showed a slight decrease in effects (*Facebook*, $OR = 3.06$, $CI = 2.54 - 3.69$, $p < .001$) (*Twitter*, $OR = 1.49$, $CI = 1.28 - 1.75$, $p < .001$) (*Instagram*, $OR = 1.35$, $CI = 1.17 - 1.56$, $p < .001$). With these results, hypothesis four can be confirmed, but hypotheses two and six cannot be confirmed.

The addition of moderating variables echo chambers and age as the independent variable and indicators for slacktivism as the dependent variables gave the following results. The omnibus model for *Changed profile picture* gave, χ^2 ($df = 12$, $N = 4057$) = 491.592, $p < .001$, Nagelkerke $R^2 = .18$. Echo chambers only significantly enhance the influence effect of Facebook usage on participants changing their profile picture in support of a cause ($OR = 1.96$, $CI = 1.67 - 2.29$). Echo chambers on Twitter and Instagram do not provide a significant enhancement (*Twitter*, $OR = 1.03$, $CI = .80 - 1.32$, $p = .835$) (*Instagram*, $OR = 1.09$, $CI = .86 - 1.38$, $p = .461$). Results show that age significantly interacts with the influence effects of the usage of all three platforms on participants changing their profile picture in support of a cause (*Facebook*, $OR = .67$, $CI = .59 - .76$, $p < .001$) (*Twitter*, $OR = 1.30$, $CI = 1.06 - 1.60$, $p = .011$) (*Instagram*, $OR = 1.22$, $CI = 1.01 - 1.49$, $p = .044$).

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

The omnibus model of *Used hashtags* gave, χ^2 (df = 12, N = 4057) = 732.36, $p < .001$, Nagelkerke $R^2 = .30$. Echo chambers significantly enhance the influence effects of Facebook and Twitter usage on people using hashtags that are related to political or social issues (*Facebook*, $OR = 2.51$, $CI = 2.03 - 3.11$, $p < .001$) (*Twitter*, $OR = 1.58$, $CI = 1.20 - 2.08$, $p = .001$). Echo chambers do not significantly interact with Instagram's usage influence effect ($OR = .95$, $CI = .72 - 1.25$, $p = .714$). Age significantly interacts with the influence effects of the usage of all three platforms on people using hashtags that are related to political or social issues (*Facebook*, $OR = .59$, $CI = .50 - .71$, $p < .001$) (*Twitter*, $OR = 1.74$, $CI = 1.41 - 2.16$, $p < .001$) (*Instagram*, $OR = .76$, $CI = .61 - .96$, $p = .021$).

The omnibus model for *Taken part in group* gave, χ^2 (df = 12, N = 4057) = 803.27, $p < .001$, Nagelkerke $R^2 = .24$. Echo chambers significantly enhance the influence effects of Facebook and Twitter usage on participants taking part in a group that shares their interest in a cause or issue (*Facebook*, $OR = 2.90$, $CI = 2.53 - 3.33$, $p < .001$) (*Twitter*, $OR = 1.45$, $CI = 1.14 - 1.83$, $p = .002$). Echo chambers do not significantly interact with Instagram's usage influence effect ($OR = .89$, $CI = .71 - 1.11$, $p = .298$). Age significantly enhances the influence effect of Twitter usage on participants taking part in a group that shares their interest in a cause or issue ($OR = 1.21$, $CI = 1.01 - 1.44$, $p = .040$). Age does not significantly interact with Facebook and Instagram usage influence effects (*Facebook*, $OR = .96$, $CI = .87 - 1.07$, $p = .437$) (*Instagram*, $OR = 1.03$, $CI = .87 - 1.22$, $p = .710$). The results partly confirm hypotheses eight and ten.

Facebook, Twitter and Instagram on cyberactivism

The logistic regressions with Facebook, Twitter and Instagram as the independent variables and the two indicators for cyberactivism as the dependent variables, gave the following results. All these results are shown in table three. The omnibus model for the analysis of *Encouraged others* gave, χ^2 (df = 3, N = 4057) = 218.67, $p < .001$, Nagelkerke $R^2 = .07$. The usage of all three platforms has a significant positive influence on participants encouraging others to take action on important issues to them (*Facebook*, $OR = 2.41$, $CI = 2.01 - 2.90$, $p < .001$) (*Twitter*, $OR = 1.65$, $CI = 1.41 - 1.92$, $p < .001$) (*Instagram*, $OR = 1.39$, $CI = 1.20 - 1.61$, $p < .001$). After the addition of the control variables, all platforms see either a slight increase or decrease in effects and remain significant (*Facebook*, $OR = 2.35$, $CI = 1.95 - 2.83$, $p < .001$) (*Twitter*, $OR = 1.70$, $CI = 1.45 - 1.99$, $p < .001$) (*Instagram*, $OR = 1.36$, $CI = 1.17 - 1.57$, $p < .001$). After adding the indicators for slacktivism, the results change. All platforms see a decrease in effects and Instagram is no longer significant (*Facebook*, $OR = 1.46$, $CI = 1.18 - 1.82$, $p < .001$)

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

(*Twitter*, $OR = 1.24$, $CI = 1.03 - 1.51$, $p = .024$) (*Instagram*, $OR = .98$, $CI = .82 - 1.17$, $p = .835$).

The omnibus model for *Looked for info of area* gave, χ^2 ($df = 3$, $N = 4057$) = 120.65, $p < .001$, Nagelkerke $R^2 = .04$. The usage of all three platforms has a significant influence on people looking for information about protests or rallies that happen in their area (*Facebook*, $OR = 1.51$, $CI = 1.22 - 1.86$, $p < .001$) (*Twitter*, $OR = 1.52$, $CI = 1.28 - 1.80$, $p < .001$) (*Instagram*, $OR = 1.66$, $CI = 1.41 - 1.95$, $p < .001$). The addition of the control variables results in a decrease in effects for all platforms and all three platforms remain significant (*Facebook*, $OR = 1.50$, $CI = 1.22 - 1.86$, $p < .001$) (*Twitter*, $OR = 1.47$, $CI = 1.24 - 1.74$, $p < .001$) (*Instagram*, $OR = 1.61$, $CI = 1.37 - 1.90$, $p < .001$). When the indicators for slacktivism were added, the results changed. There is a decrease in effects for all platforms and Facebook and Twitter are no longer significant (*Facebook*, $OR = .97$, $CI = .77 - 1.23$, $p = .820$) (*Twitter*, $OR = 1.04$, $CI = .86 - 1.27$, $p = .665$) (*Instagram*, $OR = 1.25$, $CI = 1.05 - 1.50$, $p = .014$). These results confirm hypotheses one, three and five.

The addition of moderating variables echo chambers and age as the independent variable and indicators for cyberactivism as the dependent variables gave the following results. The omnibus model for *Encouraged others* gave, χ^2 ($df = 15$, $N = 4057$) = 1577.52, $p < .001$, Nagelkerke $R^2 = .44$. Echo chambers significantly enhance the influence effect of Facebook usage on participants encouraging others to take action on issues that are important to them ($OR = 2.35$, $CI = 2.01 - 2.75$, $p < .001$). Echo chambers do not significantly interact with Twitter and Instagram usage influence effects (*Twitter*, $OR = 1.25$, $CI = .95 - 1.65$, $p = .110$) (*Instagram*, $OR = .89$, $CI = .69 - 1.14$, $p = .348$). Results indicate that age significantly enhances the influence effect of Facebook usage on participants encouraging others to take action on issues that are important to them ($OR = 1.30$, $CI = 1.15 - 1.47$, $p < .001$). Age does not significantly interact with Twitter and Instagram usage influence effects (*Twitter*, $OR = .87$, $CI = .71 - 1.06$, $p = .169$) (*Instagram*, $OR = .83$, $CI = .69 - 1.01$, $p = .064$).

The omnibus model for *Looked for info of area* gave, χ^2 ($df = 15$, $N = 4057$) = 872.46, $p < .001$, Nagelkerke $R^2 = .29$. Again, echo chambers only significantly enhance the influence effect of Facebook usage on people looking for information about protests or rallies in their area ($OR = 2.09$, $CI = 1.77 - 2.46$, $p < .001$). Echo chambers do not significantly interact with Twitter and Instagram usage influence effects (*Twitter*, $OR = 1.06$, $CI = .81 - 1.38$, $p = .669$) (*Instagram*, $OR = 1.16$, $CI = .90 - 1.49$, $p = .241$). Age significantly interacts with the influence effect of Twitter usage on people looking for information about rallies or protests in their areas ($OR = .82$, $CI = .67 - 1.00$, $p = .049$). Age does not significantly interact with Facebook and

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

Instagram usage influence effects (*Facebook*, $OR = 1.07$, $CI = .94 - 1.22$, $p = .316$) (*Instagram*, $OR = .94$, $CI = .77 - 1.14$, $p = .508$). The results partly confirm hypotheses eight, nine and ten.

Income, gender and education on slacktivism

To test if the effect of Facebook, Twitter and Instagram holds up, three control variables were added to the model. All these results can be found in table two. The omnibus model for *Changed profile picture* gave, χ^2 (df = 6, N = 4057) = 292.60, $p < .001$, Nagelkerke $R^2 = .11$. It was found that gender and education do have a significant influence on the changing of a profile picture in support of a cause (*gender*, $OR = .58$, $CI = .49 - .69$, $p < .001$) (*education*, $OR = .89$, $CI = .79 - 1.00$, $p = .047$). Income does not have a significant influence ($OR = .97$, $CI = .87 - 1.10$, $p = .640$).

The omnibus model for *Used hashtags* gave, χ^2 (df = 6, N = 4057) = 392.95 $p < .001$, Nagelkerke $R^2 = .17$. Only income has a significant influence on using political or socially related hashtags ($OR = .79$, $CI = .70 - .91$, $p < .001$). Both gender and education do not have a significant influence (*gender*, $OR = .91$, $CI = .75 - 1.11$, $p = .348$) (*education*, $OR = 1.12$, $CI = .97 - 1.29$, $p = 1.29$).

The omnibus model for *Taking part in group* gave, χ^2 (df = 6, N = 4057) = 304.09 $p < .001$, Nagelkerke $R^2 = .10$. Gender and education do have a significant influence on participants partaking in a group that shares interest in a cause or issue (*gender*, $OR = .83$, $CI = .73 - .95$, $p = .005$) (*education*, $OR = 1.21$, $CI = 1.10 - 1.34$, $p < .001$). Income has a non-significant influence ($OR = 1.02$, $CI = .93 - 1.12$, $p = .637$).

Income, gender and education on cyberactivism

To test if the effect of Facebook, Twitter and Instagram holds up, six control variables were added to the model, three of those being income, gender and education. These results are displayed in table three. The omnibus model for *Encouraged others* gave, χ^2 (df = 6, N = 4057) = 234.67, $p < .001$, Nagelkerke $R^2 = .08$. All control variables have a significant influence on participants encouraging others to take action on important issues to them (*income*, $OR = .88$, $CI = .80 - .97$, $p = .009$) (*gender*, $OR = .85$, $CI = .74 - .97$, $p = .017$) (*education*, $OR = 1.12$, $CI = 1.02 - 1.24$, $p = .021$). When the indicators of slacktivism are added, only income remained significant and the effects saw a change in strength (*income*, $OR = .87$, $CI = .78 - .97$, $p = .015$) (*gender*, $OR = .97$, $CI = .83 - 1.14$, $p = .723$) (*education*, $OR = 1.05$, $CI = .94 - 1.18$, $p = .386$).

The omnibus model for *Looked for info of area* gave, χ^2 (df = 6, N = 4057) = 154.88, $p < .001$, Nagelkerke $R^2 = .06$. It is found that education has a significant influence on people

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

looking for information about rallies or protests in their area ($OR = 1.39$, $CI = 1.23 - 1.56$, $p < .001$). Both income and gender do not have a significant influence (*income*, $OR = .96$, $CI = .86 - 1.07$, $p = .422$) (*gender*, $OR = .91$, $CI = .78 - 1.07$, $p = .247$). The addition of the indicators of slacktivism caused a change in effect strength and only education remained significant (*income*, $OR = .98$, $CI = .87 - 1.10$, $p = .752$) (*gender*, $OR = 1.03$, $CI = .88 - 1.22$, $p = .693$) (*education*, $OR = 1.35$, $CI = 1.19 - 1.53$, $p < .001$).

Slacktivism on cyberactivism

As mentioned above, six control variables were used, three of which are the indicators of slacktivism. The omnibus model for *Encouraged others* is the same as the one for income, gender and education. Results show that all indicators of slacktivism have a significant positive influence on people encouraging others to partake action on important issues to them (*Changed profile picture*, $OR = 2.41$, $CI = 1.97 - 2.96$, $p < .001$) (*Used hashtags*, $OR = 4.06$, $CI = 3.17 - 5.21$, $p < .001$) (*Taken part in group*, $OR = 6.47$, $CI = 5.53 - 7.56$, $p < .001$).

The same omnibus model of income, gender and education applies for *Looked for info of area*. Again, all three indicators of slacktivism have a significant positive influence on individuals looking for information about rallies or protests in their area (*Changed profile picture*, $OR = 1.68$, $CI = 1.38 - 2.05$, $p < .001$) (*Used hashtags*, $OR = 3.02$, $CI = 2.43 - 3.74$, $p < .001$) (*Taken part in group*, $OR = 3.82$, $CI = 3.20 - 4.56$, $p < .001$). These results do not confirm hypothesis seven but suggest the opposite. All results can be seen in table three.

Table 2. Results logistic regression of Facebook, Twitter and Instagram as independent variables on indicators of slacktivism as dependent variables.

	Changed profile picture			Used hashtags			Taken part in group		
	<i>OR (CI)</i>			<i>OR (CI)</i>			<i>OR (CI)</i>		
Constant	.04***	.07***	.07***	.05***	.06***	.06***	.23***	.19***	.16**
<i>Predictor</i>									
Facebook	4.78 (3.43 - 6.66)***	4.40 (3.16 - 6.14)***	7.82 (5.23 - 11.68)***	1.41 (1.07 - 1.87)*	1.38 (1.05 - 1.83)*	2.34 (1.58 - 3.45)***	3.11 (2.58 - 3.74)***	3.06 (2.54 - 3.69)***	3.20 (2.46 - 4.18)***
Twitter	1.12 (.93 - 1.35)	1.24 (1.03 - 1.51)*	.73 (.50 - 1.05)	3.45 (2.84 - 4.20)***	3.63 (2.97 - 4.44)***	1.34 (.92 - 1.95)	1.52 (1.30 - 1.77)***	1.49 (1.28 - 1.75)***	.97 (.70 - 1.33)
Instagram	2.04 (1.72 - 2.43)***	1.95 (1.64 - 2.33)***	1.17 (.82 - 1.66)	2.49 (2.04 - 3.03)***	2.46 (2.02 - 3.00)***	2.92 (1.98 - 4.32)***	1.40 (1.21 - 1.62)***	1.35 (1.17 - 1.56)***	1.23 (.91 - 1.66)
<i>Control</i>									
Income		.97 (.87 - 1.10)	1.10 (.97 - 1.24)		.79 (.70 - .91)***	.96 (.83 - 1.12)		1.02 (.93 - 1.12)	1.18 (1.06 - 1.30)**
Gender		.58 (.49 - .69)***	.53 (.45 - .64)***		.91 (.75 - 1.11)	.86 (.70 - 1.06)		.83 (.73 - .95)**	.78 (.68 - .90)***

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

Education		.89 (.79 – 1.00)*	.88 (.78 – 1.00)***		1.12 (.97 – 1.29)	1.11 (.95 – 1.29)		1.21 (1.10 – 1.34)***	1.28 (1.15 – 1.42)***
<i>Moderator</i>									
Echo chambers* Facebook			1.96 (1.67 – 2.29)***			2.51 (2.03 – 3.11)***			2.90 (2.53 – 3.33)***
Echo chambers* Twitter			1.03 (.80 – 1.32)			1.58 (1.20 – 2.08)**			1.45 (1.14 – 1.83)**
Echo chambers* Instagram			1.09 (.86 – 1.38)			.95 (.72 – 1.25)			.89 (.71 – 1.11)
Age*Facebook			.67 (.59 – .76)***			.59 (.50 – .71)***			.96 (.87 – 1.07)
Age*Twitter			1.30 (1.06 – 1.60)*			1.74 (1.41 – 2.16)***			1.21 (1.01 – 1.44)*
Age*Instagram			1.22 (1.01 – 1.49)*			.76 (.61 – .96)*			1.03 (.87 – 1.22)
N	4057	4057	4057	4057	4057	4057	4057	4057	4057
-2 Log likelihood	3687.02	3638.57	3439.58	2957.15	2943.42	2604.01	5252.33	5225.90	4726.73

Nagelkerke R ²	.094	.11	.18	.16	.17	.30	.09	.10	.24
Model χ^2	244.15***	292.60***	491.59***	379.23***	392.95***	732.36***	277.67***	304.09***	803.27***

*p<.05, **p<.01, ***p<.001.

Table 3. Results logistic regression of Facebook, Twitter and Instagram as independent variables on indicators of cyberactivism as dependent variables.

	Encouraged others				Taken part in group			
	<i>OR (CI)</i>				<i>OR (CI)</i>			
Constant	.23***	.26***	.14***	.13***	.16***	.11***	.06***	.06**
<i>Predictor</i>								
Facebook	2.41 (2.01 - 2.90)***	2.35 (1.95 - 2.83)***	1.46 (1.18 - 1.82)***	.89 (.66 - 1.22)	1.51 (1.22 - 1.86)***	1.50 (1.22 - 1.86)***	.97 (.77 - 1.23)	.80 (.58 - 1.11)
Twitter	1.65 (1.41 - 1.92)***	1.70 (1.45 - 1.99)***	1.24 (1.03 - 1.51)*	1.48 (1.03 - 2.14)*	1.52 (1.28 - 1.80)***	1.47 (1.24 - 1.74)***	1.04 (.86 - 1.27)	1.31 (.90 - 1.90)
Instagram	1.39 (1.20 - 1.61)***	1.36 (1.17 - 1.57)***	.98 (.82 - 1.17)	1.40 (.99 - 1.98)	1.66 (1.41 - 1.95)***	1.61 (1.37 - 1.90)***	1.25 (1.05 - 1.50)*	1.34 (.93 - 1.92)
Changed profile picture			2.41 (1.97 - 2.96)***	2.35 (1.90 - 2.91)***			1.68 (1.38 - 2.05)***	1.53 (1.25 - 1.88)***

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

Used hashtags		4.06 (3.17 - 5.21)***	3.28 (2.53 - 4.24)***		3.02 (2.43 - 3.74)***	2.42 (1.93 - 3.03)***
Taken part in group		6.47 (5.53 - 7.56)***	5.13 (4.36 - 6.04)***		3.82 (3.20 - 4.56)***	3.02 (2.51 - 3.64)***
<i>Control</i>						
Income	.88 (.80 - .97)**	.87 (.78 - .97)*	.95 (.85 - 1.07)	.96 (.86 - 1.07)	.98 (.87 - 1.10)	1.09 (.97 - 1.23)
Gender	.85 (.74 - .97)*	.97 (.83 - 1.14)	.92 (.78 - 1.08)	.91 (.78 - 1.07)	1.03 (.88 - 1.22)	.97 (.82 - 1.15)
Education	1.12 (1.02 - 1.24)*	1.05 (.94 - 1.18)	1.11 (.99 - 1.25)	1.39 (1.23 - 1.56)***	1.35 (1.19 - 1.53)***	1.43 (1.26 - 1.63)***
<i>Moderator</i>						
Echo chambers* Facebook			2.35 (2.01 - 2.75)***			2.09 (1.77 - 2.46)***
Echo chambers* Twitter			1.25 (.95 - 1.65)			1.06 (.81 - 1.38)

Echo chambers* Instagram				.89 (.69 - 1.14)				1.16 (.90 - 1.49)
Age*Facebook				1.30 (1.15 - 1.47)***				1.07 (.94 - 1.22)
Age*Twitter				.87 (.71 - 1.06)				.82 (.67 - 1.00)*
Age*Instagram				.83 (.69 - 1.01)				.94 (.77 - 1.14)
N	4057	4057	4057	4057	4057	4057	4057	4057
-2 Log likelihood	5174.74	5158.74	4033.42	3815.90	4254.78	4220.54	3668.54	3502.97
Nagelkerke R ²	.07	.08	.39	.44	.04	.06	.24	.29
Model χ^2	218.67***	234.67***	1359.99***	1577.52***	120.65***	154.88***	706.89***	872.46***

*p<.05, **p<.01, ***p<.001.

Conclusion

The aim of this research was to provide insight on the influence that the usage of different social media platforms has on cyberactivism and slacktivism. More specifically, Facebook, Twitter and Instagram were used to see their different influences on cyberactivist and slacktivist behaviour. All three platforms turned out to significantly influence the likeliness of people partaking in activities that can be characterized as slacktivism.

This means that Facebook, Twitter and Instagram use increases the likelihood of people to participate in slacktivist activities. These findings can be explained by the characteristics of these activities. Slacktivism consists of low-cost and low-risk activities (Rotman et al., 2011). Schumann & Klein (2015) go on to state that these kinds of activities have a low-threshold. Since people want to contribute in an effortless way, participating in slacktivist activities is not hard (Landman, 2008). In other words, the adoption of slacktivist behaviour is not that complex. This can explain why users across all three platforms are likely to participate in slacktivist activities.

Initial results indicate that Facebook, Twitter and Instagram use increases the chance of people taking part in cyberactivist activities. However, it becomes interesting when the indicators for slacktivism are added into the model. All three indicators of slacktivism have a positive significant effect on both indicators of cyberactivism. The effect strength of all three platforms decreases and varying between the indicators, some platforms even lose their significance. So, besides the platforms significantly influencing the likelihood of partaking in cyberactivism, it is slacktivism that significantly increases the chances of people participating in cyberactivism.

The explanation of this unexpected finding can be found in earlier research. Slacktivism leads to more substantive political actions and has a positive significant influence on subsequent action on cyberactivist activities (Skoric, 2012; Lee & Hsieh, 2013). This explains the positive significant influences of Facebook, Twitter and Instagram on both slacktivism and cyberactivism. However, slacktivism is the better predictor when it comes to cyberactivism, instead of the social media platforms. Results indicate a mediation effect of slacktivism on the influence of social media platform usage on cyberactivism. With social media usage leading to more slacktivism, these platforms have a nuanced effect on cyberactivism, because it is slacktivism that mostly leads to cyberactivism. Lee & Hsieh (2013) state that this subsequent action is driven by the desire of people to stay consistent after partaking in slacktivist activities.

The control variables do not have a clear pattern of significant influence with regards to cyberactivism and slacktivism. There are some significant influences, but the effects fluctuate

between negative and positive. Therefore, it is hard to make broader conclusions about income, gender and education. The same applies for the moderating variable age.

The results of age differentiate between significant effects for Facebook, Twitter and Instagram. On top of that, the effect strengths differ from negative to positive. So, in some cases being younger does make people more likely to participate in slacktivism or cyberactivism, but in other cases findings suggest the opposite. These differences can be explained by earlier research that states that different age groups use social media for different reasons (Kim, Sin & Tsai, 2014). On top of that, the use of platforms differs with age (Greenwood, Perrin & Duggan, 2016).

With regards to echo chambers, one consistent finding becomes noticeable. Echo chambers are of significant influence on Facebook. So, echo chambers seem to positively influence the chances of Facebook users to partake in slacktivism and cyberactivism. For the other platforms, there are significant influences for certain slacktivist and cyberactivist activities, but these are not as consistent as those of Facebook. The explanation for this is that on Facebook, people feel the need to belong and the need for self-presentation (Nadkarni & Hofmann, 2012). Echo chambers are clusters of people that think alike and this allows for lower thresholds for the adoption of new behaviour (Törnberg, 2018). Facebook users could then feel the need to belong to a cluster group and feel the need to impress others by adopting their behaviour. As discussed earlier, the social identity theory provides an explanation for the needs that drive Facebook use and why people are inclined to polarize.

The findings on echo chambers show that echo chambers are not of big influence on both Twitter and Instagram. So, it seems that echo chambers do not always seem to be of influence, which makes them more complex to research. Earlier research stated that echo chambers can originate by way of polarization (Nelmarkka et al., 2018). Dystopians state that the internet causes this polarization, which could really damage democracies (Fisher & Wright, 2001). These results show that labelling echo chambers under a dystopian view, should be done with some caution, as it seems that echo chambers do not always have a significant influence on every platform. With regards to the expected differences in echo chambers effect strength for cyberactivism and slacktivism, no remarkable differences were found.

Discussion

Despite the strengths of this research, a few limitations should be considered. This research contributes to a better understanding of the influence of Facebook, Twitter and Instagram use on cyberactivism and slacktivism. However, what is lacking in the data, is information about the amount of time people spend on Facebook, Twitter and Instagram. For further research, the questionnaire should contain questions on the amount of time spent on each of these platforms. This is of importance, because previous research already indicated a positive link between political participation and the frequency of someone's social media use (Valenzuela, 2013). User time could provide interesting results on top of the results of this research.

Secondly, the distribution of users amongst the three platforms was a bit skewed. Most of the participants used Facebook (N = 3244), Instagram (N = 1302) and Twitter (N = 1037) users were less present in this research. The power of Facebook is larger, which could be of influence on the consistent significant results. However, this difference can also explain the absence of significant effects on Twitter and Instagram, that is why those results should also be interpreted with caution. Making an equal sample would also allow for more accurate comparing options between platforms and it ensures no possible differences in power.

This dataset provided five indicators that could perfectly be described as either slacktivism or cyberactivism. To date, studies on slacktivist behaviour on social media are limited (Samuelson-Cramp & Bolat, 2018). Since slacktivism seems to be of great influence on cyberactivism, further research should focus on adding more slacktivist and cyberactivist activities to an analysis. This is important to get a better understanding of the influence of slacktivist behaviour on cyberactivism. Another strength of this research is the use of characteristic variables. These variables, like income, gender and education, allowed for good control variables. To generalize these findings outside of the United States, future research should include participants from all nationalities.

However, with regards to age, a limitation arises. The distribution of age groups was slightly skewed, participants aged between 18 and 29 were underrepresented. This means that the power for older people is higher than for younger people. This could explain why age had unexpected effect outcomes and was less significant than expected. To get a more accurate picture of the possible effect of age and explain the found differences in this study, further research should compile a more equally and precisely distributed age sample.

The thing that remains difficult with social media research, is that there is not a unified definition (Carr & Hayes, 2015). The lack of this can result in different connotations of the

concept, which inhibits the creation of a shared understanding for theory and research (Carr & Hayes, 2015). On top of that, the absence of consistency is also present amongst the platforms itself. The ongoing fast development of social media platforms and the constant change in popularity, makes it more difficult to perform similar analyses across different platforms (Arafa & Armstrong, 2016). The only way to prevent this problem is improvement in the scientific tools for social media research (Arafa & Armstrong, 2016).

In conclusion, due to the limitations mentioned above, the results of this research should be taken with a slight askance. However, the results indicate that the usage of different social media platforms significantly influences slacktivist behaviour. Initial results also indicate that different social media platform usage also significantly influences cyberactivist behaviour. Having more knowledge on how different social media platforms can contribute to the ongoing changes in society that are driven by activist behaviour is of great value. This research provided a framework of the mechanisms across platforms. Future research should elaborate more on explaining what differences in mechanisms cause the differences in slacktivist and cyberactivist behaviour per platform. On top of that, the interesting findings on the moderating influence of echo chambers on Facebook use on slacktivism and cyberactivism should be taken into consideration. Future research should dive deeper into the prevalence of echo chambers on Facebook and its relation to cyberactivist and slacktivist behaviour. Doing so could greatly benefit in an understanding of how activists could use echo chambers to their advantage.

More consideration should be made when describing cyberactivist behaviour as slacktivism. As proven in this research, slacktivism has a significant influence on further forms of cyberactivism. However, to conclude the ongoing debate about the effectiveness of slacktivism, further research should dive deeper into the relation between slacktivism and cyberactivism. The findings and theoretical framework of this research can function as a steppingstone for further research on the effectiveness of slacktivism and differences in online activist behaviour between social media platforms. With all this new knowledge, the instrumental influence of social media activism can no longer be denied.

References

- Akram, W., & Kumar, R. (2017). A study on positive and negative effects of social media on society. *International Journal of Computer Sciences and Engineering*, 5(10), 347-354.
- Allcott, H., & Gentzkow, M. (2017). Social media and fake news in the 2016 election. *Journal of economic perspectives*, 31(2), 211-36.
- Allsop, B. (2016). Social media and activism: A literature review. *Social Psychology Review*, 18(2), 35-40.
- Amedie, J. (2015). The impact of social media on society. *Pop Culture Intersections*, 2.
- Arafa, M., & Armstrong, C. (2016). "Facebook to Mobilize, Twitter to Coordinate Protests, and YouTube to Tell the World": New Media, Cyberactivism, and the Arab Spring. *Journal of Global Initiatives: Policy, Pedagogy, Perspective*, 10(1), 6.
- Bagozzi, R. P., & Dholakia, U. M. (2002). Intentional social action in virtual communities. *Journal of interactive marketing*, 16(2), 2-21.
- Bakshy, E., Messing, S., & Adamic, L. A. (2015). Exposure to ideologically diverse news and opinion on Facebook. *Science*, 348(6239), 1130-1132.
- Barsade, S. G. (2002). The ripple effect: Emotional contagion and its influence on group behavior. *Administrative science quarterly*, 47(4), 644-675.
- Bertot, J. C., Jaeger, P. T., & Grimes, J. M. (2010). Using ICTs to create a culture of transparency: E-government and social media as openness and anti-corruption tools for societies. *Government information quarterly*, 27(3), 264-271.
- Bonilla, Y., & Rosa, J. (2015). # Ferguson: Digital protest, hashtag ethnography, and the racial politics of social media in the United States. *American ethnologist*, 42(1), 4-17.

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

- Bovet, A., & Makse, H. A. (2019). Influence of fake news in Twitter during the 2016 US presidential election. *Nature communications*, *10*(1), 1-14.
- Branscombe, N. R., Schmitt, M. T., & Harvey, R. D. (1999). Perceiving pervasive discrimination among African Americans: Implications for group identification and well-being. *Journal of personality and social psychology*, *77*(1), 135.
- Bright, J. (2017). Explaining the emergence of echo chambers on social media: the role of ideology and extremism. *Available at SSRN 2839728*.
- Brown, G., & Pickerill, J. (2009). Space for emotion in the spaces of activism. *Emotion, space and society*, *2*(1), 24-35.
- Carney, N. (2016). All lives matter, but so does race: Black lives matter and the evolving role of social media. *Humanity & Society*, *40*(2), 180-199.
- Carr, C. T., & Hayes, R. A. (2015). Social media: Defining, developing, and divining. *Atlantic journal of communication*, *23*(1), 46-65.
- Carty, V., & Onyett, J. (2006). Protest, cyberactivism and new social movements: The reemergence of the peace movement post 9/11. *Social Movement Studies*, *5*(3), 229-249.
- Casas, A., & Williams, N. W. (2019). Images that matter: Online protests and the mobilizing role of pictures. *Political Research Quarterly*, *72*(2), 360-375.
- Centola, D., & Macy, M. (2007). Complex contagions and the weakness of long ties. *American journal of Sociology*, *113*(3), 702-734.
- Centola, D. (2018). *How behavior spreads: The science of complex contagions* (Vol. 3). Princeton, NJ: Princeton University Press.

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

- Chen, B., Vansteenkiste, M., Beyers, W., Boone, L., Deci, E. L., Van der Kaap-Deeder, J., Duriez, B., Lens, W., Matos, L., Mouratidis, A., Ryan, R. M., Sheldon, K. M., Soenens, B., Van Petegem, S., & Verstuyf, J. (2015). Basic psychological need satisfaction, need frustration, and need strength across four cultures. *Motivation and emotion*, 39(2), 216-236.
- Chong, M. (2016). Sentiment analysis and topic extraction of the twitter network of# prayforparis. *Proceedings of the Association for Information Science and Technology*, 53(1), 1-4.
- Christensen, C. (2011). Twitter revolutions? Addressing social media and dissent. *The Communication Review*, 14(3), 155-157.
- Christensen, H.S. (2011). Political activities on the Internet: Slacktivism or political participation by other means? *First Monday*, 16(2).
- Christensen, H. S. (2012). Simply slacktivism? Internet participation in Finland. *JeDEM-eJournal of eDemocracy and Open Government*, 4(1), 1-23.
- Chun, S., Shulman, S., Sandoval, R., & Hovy, E. (2010). Government 2.0: Making connections between citizens, data and government. *Information Polity*, 15(1, 2), 1-9.
- Cinelli, M., Morales, G. D. F., Galeazzi, A., Quattrociocchi, W., & Starnini, M. (2020). Echo chambers on social media: A comparative analysis. *arXiv preprint arXiv:2004.09603*.
- Comunello, F., Mulargia, S., & Parisi, L. (2016). The ‘proper’ way to spread ideas through social media: exploring the affordances and constraints of different social media platforms as perceived by Italian activists. *The Sociological Review*, 64(3), 515-532.
- Cook, D. M., Waugh, B., Abdipanah, M., Hashemi, O., & Rahman, S. A. (2014). Twitter deception and influence: Issues of identity, slacktivism, and puppetry. *Journal of Information Warfare*, 13(1), 58-71.

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

- Couto, C., & Modesto, J. G. (2020). The influence of Facebook on Political Activism and Radicalism. *Psico-USF*, 25(4), 637-644.
- Dadas, C. (2017). Hashtag Activism: The Promise and Risk of ‘Attention. *Social Writing/Social Media: Publics, Presentations, Pedagogies*, 17-36.
- De Vries, D. A., Möller, A. M., Wieringa, M. S., Eigenraam, A. W., & Hamelink, K. (2018). Social comparison as the thief of joy: Emotional consequences of viewing strangers’ Instagram posts. *Media psychology*, 21(2), 222-245.
- Dubose, C. (2011). The social media revolution. *Radiologic technology*, 83(2), 112-119.
- Fisher, D. R., & Wright, L. M. (2001). On utopias and dystopias: Toward an understanding of the discourse surrounding the Internet. *Journal of Computer-Mediated Communication*, 6(2), JCMC624.
- Flaxman, S., Goel, S., & Rao, J. M. (2016). Filter bubbles, echo chambers, and online news consumption. *Public opinion quarterly*, 80(S1), 298-320.
- Foster, M. D., Tassone, A., & Matheson, K. (2020). Tweeting about sexism motivates further activism: A social identity perspective. *British Journal of Social Psychology*.
- Frangonikolopoulos, C. A., & Chapsos, I. (2012). Explaining the role and the impact of the social media in the Arab Spring. *Global Media Journal: Mediterranean Edition*, 7(2).
- Garimella, K., De Francisci Morales, G., Gionis, A., & Mathioudakis, M. (2018). Political discourse on social media: Echo chambers, gatekeepers, and the price of bipartisanship. *In Proceedings of the 2018 World Wide Web Conference* (pp. 913-922).
- Garimella, K. (2018). *Polarization on social media*. School of Science.

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

- Garrett, R. K. (2009). Echo chambers online?: Politically motivated selective exposure among Internet news users. *Journal of computer-mediated communication*, 14(2), 265-285.
- Giorgi, S., Guntuku, S. C., Rahman, M., Himelein-Wachowiak, M., Kwarteng, A., & Curtis, B. (2020). Twitter corpus of the #blacklivesmatter movement and counter protests: 2013 to 2020. *arXiv preprint arXiv:2009.00596*.
- Glenn, C. L. (2015). Activism or “Slacktivism?”: digital media and organizing for social change. *Communication Teacher*, 29(2), 81-85.
- Goel, S., Mason, W., & Watts, D. J. (2010). Real and perceived attitude agreement in social networks. *Journal of personality and social psychology*, 99(4), 611.
- Goldsborough, R. (2011). ‘Slacktivism is Becoming the New Activism’, *Community College Week*, 23(11), p 13.
- González-Bailón, S., Borge-Holthoefer, J., & Moreno, Y. (2013). Broadcasters and hidden influentials in online protest diffusion. *American behavioral scientist*, 57(7), 943-965.
- Grabe, M. E., & Bucy, E. P. (2009). *Image bite politics: News and the visual framing of elections*. Oxford University Press.
- Graber, D. A. (1996). Say it with pictures. *The annals of the American academy of political and social science*, 546(1), 85-96.
- Granovetter, M. S. (1973). The strength of weak ties. *American journal of sociology*, 78(6), 1360-1380.
- Greenwood, S., Perrin, A., & Duggan, M. (2016). Social media update 2016. *Pew Research Center*, 11(2), 1-18.

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

- Greijdanus, H., de Matos Fernandes, C. A., Turner-Zwinkels, F., Honari, A., Roos, C. A., Rosenbusch, H., & Postmes, T. (2020). The psychology of online activism and social movements: Relations between online and offline collective action. *Current opinion in psychology, 35*, 49-54.
- Grinberg, N., Joseph, K., Friedland, L., Swire-Thompson, B., & Lazer, D. (2019). Fake news on Twitter during the 2016 US presidential election. *Science, 363*(6425), 374-378.
- Guidetti, M., Cavazza, N., & Graziani, A. R. (2016). Perceived disagreement and heterogeneity in social networks: Distinct effects on political participation. *The Journal of social psychology, 156*(2), 222-242.
- Gustafsson, N. (2012). The subtle nature of Facebook politics: Swedish social network site users and political participation. *New Media & Society, 14*(7), 1111-1127.
- Hampton, C. (2015). #nomakeupselfies: the Face of Hashtag Slacktivism. *Networking Knowledge: Journal of the MeCCSA Postgraduate Network, 8*(6).
- Hoffman, L. H. (2006). Is Internet content different after all? A content analysis of mobilizing information in online and print newspapers. *Journalism & Mass Communication Quarterly, 83*(1), 58-76.
- Hogg, M. A., Terry, D. J., & White, K. M. (1995). A tale of two theories: A critical comparison of identity theory with social identity theory. *Social psychology quarterly, 255-269*.
- Holt, K., Shehata, A., Strömbäck, J., & Ljungberg, E. (2013). Age and the effects of news media attention and social media use on political interest and participation: Do social media function as leveller?. *European Journal of Communication, 28*(1), 19-34.
- Howard, P. N., & Hussain, M. M. (2011). The upheavals in Egypt and Tunisia: The role of digital media. *Journal of democracy, 22*(3), 35-48.

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

- Hu, Y., Manikonda, L., & Kambhampati, S. (2014). What we Instagram: A first analysis of Instagram photo content and user types. In *Proceedings of the International AAAI Conference on Web and Social Media* (Vol. 8, No. 1).
- Illia, L. (2003). Passage to cyberactivism: How dynamics of activism change. *Journal of Public Affairs: An International Journal*, 3(4), 326-337.
- Joyce, M.C. (Ed.). (2010). *Digital activism decoded: The new mechanics of change*. New York: International Debate Education Association.
- Kapoor, K. K., Tamilmani, K., Rana, N. P., Patil, P., Dwivedi, Y. K., & Nerur, S. (2018). Advances in social media research: Past, present and future. *Information Systems Frontiers*, 20(3), 531-558.
- Kelman, H. C. (1974). Social influence and linkages between the individual and the social system: Further thoughts on the processes of compliance, identification, and internalization. In J. Tedeschi (Ed.), *Perspectives on social power*.
- Khamis, S., & Vaughn, K. (2011). Cyberactivism in the Egyptian revolution: How civic engagement and citizen journalism tilted the balance. *Arab Media and Society*, 14(3), 1-25.
- Khamis, S., & Vaughn, K. (2012). 'We are all Khaled Said': The potentials and limitations of cyberactivism in triggering public mobilization and promoting political change. *Journal of Arab & Muslim Media Research*, 4(2-3), 145-163.
- Khan, G. F., Swar, B., & Lee, S. K. (2014). Social media risks and benefits: A public sector perspective. *Social science computer review*, 32(5), 606-627.
- Kim, K. S., Sin, S. C. J., & Tsai, T. I. (2014). Individual differences in social media use for information seeking. *The journal of academic librarianship*, 40(2), 171-178.
- Kiss, H. J., & Rosa-García, A. (2011). Why do Facebook and Twitter facilitate revolutions more than TV and radio?.

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

- Kling, R. (1996). Social Relationships in Electronic Forums: Hangouts, Salons, Workplaces, and Communities.
- Kramer, A. D., Guillory, J. E., & Hancock, J. T. (2014). Experimental evidence of massive-scale emotional contagion through social networks. *Proceedings of the National Academy of Sciences*, *111*(24), 8788-8790.
- Kwak, H., Lee, C., Park, H., & Moon, S. (2010). What is Twitter, a social network or a news media?. In *Proceedings of the 19th international conference on World wide web* (pp. 591-600).
- Landman, A. (2008). Corporate-Sponsored Slacktivism ‘: Bigger and More Dangerous than the Urban Dictionary Realizes. *Center for Media and Democracy PRWatch.org*, June, 2.
- Langman, L. (2005). From virtual public spheres to global justice: A critical theory of internetworked social movements. *Sociological theory*, *23*(1), 42-74.
- Lee, T. (2019). The global rise of “fake news” and the threat to democratic elections in the USA. *Public Administration and Policy*.
- Lee, Y. H., & Hsieh, G. (2013). Does slacktivism hurt activism? The effects of moral balancing and consistency in online activism. In *Proceedings of the SIGCHI conference on human factors in computing systems* (pp. 811-820).
- Lemert, J. B. (1981). *Does mass communication change public opinion after all? A new approach to effects analysis*. Chicago, IL: Nelson-Hall.
- Lenhart, A., Purcell, K., Smith, A., & Zickuhr, K. (2010). Social Media & Mobile Internet Use among Teens and Young Adults. Millennials. *Pew internet & American life project*.

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

- Lerman, K., & Ghosh, R. (2010). Information contagion: An empirical study of the spread of news on digg and twitter social networks. In *Proceedings of the International AAAI Conference on Web and Social Media* (Vol. 4, No. 1).
- Madison, N., & Klang, M. (2020). The Case for Digital Activism: Refuting the Fallacies of Slacktivism. *Journal of Digital Social Research*, 2(2), 28-47.
- Mäkinen, M., & Wangu Kuiru, M. (2008). Social media and post election crisis in Kenya. *The International Journal of Press/Politics*, 13(3), 328-335.
- Manikonda, L., Hu, Y., & Kambhampati, S. (2014). Analyzing user activities, demographics, social network structure and user-generated content on Instagram. *arXiv preprint arXiv:1410.8099*.
- McCafferty, D. (2011). Activism vs. slacktivism. *Communications of the ACM*, 54(12), 17-19.
- McNutt, J. G., & Menon, G. M. (2008). The rise of cyberactivism: Implications for the future of advocacy in the human services. *Families in Society*, 89(1), 33-38.
- McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). Birds of a feather: Homophily in social networks. *Annual review of sociology*, 27(1), 415-444.
- Morozov, E. (2009). The brave new world of slacktivism. *Foreign policy*, 19(05).
- Mossberger, K. (2008). Toward digital citizenship: Addressing inequality in the information age. In *Routledge handbook of Internet politics* (pp. 189-201). Routledge.
- Mundt, M., Ross, K., & Burnett, C. M. (2018). Scaling social movements through social media: The case of Black Lives Matter. *Social Media + Society*, 4(4), 2056305118807911.

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

- Myers, S. A., Sharma, A., Gupta, P., & Lin, J. (2014). Information network or social network? The structure of the Twitter follow graph. In *Proceedings of the 23rd International Conference on World Wide Web* (pp. 493-498).
- Nadkarni, A., & Hofmann, S. G. (2012). Why do people use Facebook?. *Personality and individual differences*, 52(3), 243-249.
- Nayar, Y., & Raheja, S. (2015). Growing Popularity of Social Media. *Social Media and Indian Youth*, 73.
- Nelimarkka, M., Laaksonen, S. M., & Semaan, B. (2018). Social media is polarized, social media is polarized: towards a new design agenda for mitigating polarization. In *Proceedings of the 2018 Designing Interactive Systems Conference* (pp. 957-970).
- Noland, A. (2020). Like, share, retweet: Testing competing models of the theory of planned behavior to predict slacktivism engagement. *Journal of Nonprofit & Public Sector Marketing*, 32(3), 264-285.
- Oliverio, J. (2018). A survey of social media, big data, data mining, and analytics. *Journal of Industrial Integration and Management*, 3(03), 1850003.
- O'Reilly, T. (2009). *What is web 2.0*. "O'Reilly Media, Inc."
- Pariser, E. (2011). *The filter bubble: What the Internet is hiding from you*. Penguin UK.
- Parmelee, J. H., & Roman, N. (2020). Insta-echoes: Selective exposure and selective avoidance on Instagram. *Telematics and Informatics*, 52, 101432.
- Parsloe, S. M., & Holton, A. E. (2018). #Boycottautismspeaks: communicating a counternarrative through cyberactivism and connective action. *Information, Communication & Society*, 21(8), 1116-1133.
- Perrin, A. (2015). Social media usage. *Pew research center*, 125, 52-68.

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

- Prados, J. S. F. (2012). Ciberactivismo: conceptualización, hipótesis y medida. *Arbor*, 188(756), 631-639.
- Rheingold, H. (1993). A slice of life in my virtual community. *Global networks: Computers and international communication*, 57-80.
- Rheingold, H. (2000). *The Virtual Community, revised edition: Homesteading on the Electronic Frontier*. MIT press.
- Rogers, E. M. (2003). *Diffusion of innovations*. New York, NY: Free Press.
- Rotman, D., Vieweg, S., Yardi, S., Chi, E., Preece, J., Shneiderman, B., Pirolli, P., & Glaisyer, T. (2011). From slacktivism to activism: participatory culture in the age of social media. In *CHI'11 Extended Abstracts on Human Factors in Computing Systems* (pp. 819-822).
- Samuelson-Cramp, F., & Bolat, E. (2018). Helping the World One 'Like' at a Time: The Rise of the Slacktivist. In *Corporate Responsibility and Digital Communities* (pp. 123-143). Palgrave Macmillan, Cham.
- Sandoval-Almazan, R., & Gil-Garcia, J. R. (2012). Are government internet portals evolving towards more interaction, participation, and collaboration? Revisiting the rhetoric of e-government among municipalities. *Government Information Quarterly*, 29, S72-S81.
- Sandoval-Almazan, R., & Gil-Garcia, J. R. (2013). Cyberactivism through Social Media: Twitter, YouTube, and the Mexican Political Movement "I'm Number 132". In *2013 46th Hawaii International Conference on System Sciences* (pp. 1704-1713). IEEE.
- Sandoval-Almazan, R., & Gil-Garcia, J. R. (2014). Towards cyberactivism 2.0? Understanding the use of social media and other information technologies for political activism and social movements. *Government Information Quarterly*, 31(3), 365-378.

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

- Schoenewolf, G. (1990). Emotional contagion: Behavioral induction in individuals and groups. *Modern Psychoanalysis, 15*(1), 49-61.
- Schumann, S., & Klein, O. (2015). Substitute or stepping stone? Assessing the impact of low-threshold online collective actions on offline participation. *European Journal of Social Psychology, 45*(3), 308-322.
- Segeberg, A., & Bennett, W. L. (2011). Social media and the organization of collective action: Using Twitter to explore the ecologies of two climate change protests. *The Communication Review, 14*(3), 197-215.
- Siddiqui, S., & Singh, T. (2016). Social media its impact with positive and negative aspects. *International Journal of Computer Applications Technology and Research, 5*(2), 71-75.
- Simon, B., & Klandermans, B. (2001). Politicized collective identity: A social psychological analysis. *American psychologist, 56*(4), 319.
- Simpson, E. (2018). Integrated & Alone: The Use of Hashtags in Twitter Social Activism. In *Companion of the 2018 ACM Conference on Computer Supported Cooperative Work and Social Computing* (pp. 237-240).
- Skoric, M. M. (2012). What is slack about slacktivism. *Methodological and conceptual issues in cyber activism research, 77*, 77-92.
- Statista (2020). Global social networks ranked by number of users 2021. Retrieved March 18, 2021, from <https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/>.
- Tajfel, H., Turner, J. C., Austin, W. G., & Worchel, S. (1979). An integrative theory of intergroup conflict. *Organizational identity: A reader, 56*(65), 9780203505984-16.

The Influence of Different Social Media Platform usage on Cyberactivism and Slacktivism

- Törnberg, P. (2018). Echo chambers and viral misinformation: Modeling fake news as complex contagion. *PloS one*, *13*(9), e0203958.
- Trifiro, B. (2018). Instagram Use and It's Effect on Well-Being and Self-Esteem.
- Tucker, J. A., Guess, A., Barberá, P., Vaccari, C., Siegel, A., Sanovich, S., Stukal, D., & Nyhan, B. (2018). Social media, political polarization, and political disinformation: A review of the scientific literature. *Political polarization, and political disinformation: a review of the scientific literature (March 19, 2018)*.
- Turnbull-Dugarte, S. J. (2019). Selfies, policies, or votes? Political party use of Instagram in the 2015 and 2016 Spanish general elections. *Social Media+ Society*, *5*(2), 2056305119826129.
- Valenzuela, S. (2013). Unpacking the use of social media for protest behavior: The roles of information, opinion expression, and activism. *American behavioral scientist*, *57*(7), 920-942.
- Vegh, S. (2003). Classifying forms of online activism: The case of cyberprotests against the World Bank. In M. McCaughey and M. D. Ayers (Eds.), *Cyberactivism: Online activism in theory and practice* (pp. 71–95). New York: Routledge.
- Vitak, J., Zube, P., Smock, A., Carr, C. T., Ellison, N., & Lampe, C. (2011). It's complicated: Facebook users' political participation in the 2008 election. *CyberPsychology, behavior, and social networking*, *14*(3), 107-114.
- Wang, X., Jia, J., Tang, J., Wu, B., Cai, L., & Xie, L. (2015). Modeling emotion influence in image social networks. *IEEE Transactions on Affective Computing*, *6*(3), 286-297.
- Warner, B. R. (2010). Segmenting the electorate: The effects of exposure to political extremism online. *Communication Studies*, *61*(4), 430-444.
- Weller, K. (2016). Trying to understand social media users and usage: The forgotten features of social media platforms. *Online Information Review*.

- Wigand, R. T., Wood, J. D., & Mande, D. M. (2010). Taming the Social Network Jungle: From Web 2.0 to Social Media. In *AMCIS* (p. 416).
- Yang, Y., Jia, J., Wu, B., & Tang, J. (2016). Social role-aware emotion contagion in image social networks. In *Proceedings of the AAAI Conference on Artificial Intelligence* (Vol. 30, No. 1).
- Zhang, S., Jiang, H., & Carroll, J. M. (2012). Social identity in Facebook community life. In *Technical, social, and legal issues in virtual communities: Emerging environments* (pp. 101-114). IGI Global.
- Zhou, T. (2011). Understanding online community user participation: a social influence perspective. *Internet research*.