

# The Extent of Empathy and Helping Attitudes on Engagement in Clicktivism on Facebook

Matthew Bapitie<sup>1</sup> & Pelham Carter<sup>1</sup>

<sup>1</sup> Department of Psychology, School of Social Sciences, Birmingham City University, Birmingham, UK

Correspondence: Pelham Carter, Department of Psychology, School of Social Sciences, Birmingham City University, Birmingham, UK.

doi:10.56397/SSSH.2022.12.01

## Abstract

Clicktivism describes how users on social media support online campaigns. This growing activity is demonstrated on Facebook through its abundant features, including the ability to ‘like’ and ‘share’ share content with family and friends. Importantly factors that may predict the extent to which Clicktivism and online activism are engaged in require further exploration. This current research sought to add to the growing literature by investigating the predictive value of empathy and helping attitudes with engagement in Clicktivism on Facebook. A pre-pandemic UK University student sample of 118 females and 46 males participated in an online questionnaire. This questionnaire consisted of an adapted version of the Facebook Frequency and Use of Activities Scale (FFAS), the Adolescent Measure of Empathy and Sympathy (AMES), the Helping Attitudes Scale (HAS) and the Big Five Inventory (BFI-10). A multiple regression analysis revealed cognitive empathy and sympathy predict engagement in Clicktivism on Facebook. Previous expected predictors such as time spent online and level of Facebook use were interestingly not sufficient to significantly predict Clicktivism.

**Keywords:** Facebook, meta, clicktivism, slacktivism, personality, BFI, empathy, sympathy, HAS, AMES, FFAS, regression

## 1. Introduction

Facebook is a popular form of social media typically used for communication and entertainment purposes. Up to 72% of its 1.5 billion users visit the site daily to interact with an online community, to chat, share content or join online groups with similar interests to their own (Mayshak, Sharman & Zinkiewicz, 2016). A recent and growing activity amongst its users is the ability to engage in real-world change (Gleeson, 2014). For example, Black Lives Matter, an American movement, utilised Facebook to voice the growing police brutality against African-Americans, that eventually formed civil rights groups in the United Kingdom to mobilise into public protest to raise awareness (Taylor, 2016). The collective act of ‘sharing’ interactive media like videos and pictures related to Black Lives Matter, joining online groups, and even encouraging friends using the Facebook chat facility, were instrumental in raising awareness and public interest despite users not being immediately affected by the event (Taylor, 2016; Selleck, 2010). These actions characterise the term Clicktivism, which describes the use of social media to support and raise awareness of real-world issues or events (Fatkin & Lansdown, 2015).

Clicktivism is not exclusive to social movements like Black Lives Matter as many charities and political organisations utilise Facebook to encourage the signing of petitions and monetary donations to support the organization’s goals (Chapman & Coffe, 2016; Gleeson, 2014). However, Morozov (2011) criticised Clicktivism as Slacktivism, a term that denounces the activity as ‘pointless’ and serves only to make the participant “feel good” without enacting upon real-world issues and toward meaningful social change. Social psychological research has since investigated the discrepancy between Clicktivism and Slacktivism as social, political and

charitable organisations draw upon Facebook to maximise their impact (Taylor, 2016; Fatkin & Lansdown, 2015; Lee & Hsieh, 2013). Support for the contradictory terms is mixed, although yields insight into the tangible benefits of using social media toward real-world change (Rotman & et al., 2011).

A consistent finding suggests those who engage in Clicktivism are also more likely to donate (Fatkin & Lansdown, 2015; Lee & Hsieh, 2013). Boulianna (2009) conducted a meta-analysis examining social media usage and political participation offline and found a moderately positive correlation, and suggests time spent online facilitates both the engagement in Clicktivism and interest in the respective movement offline (Fatkin & Lansdown, 2015; Rotman & et al., 2011). However, evidence for Slacktivism emerges when psychological mechanisms were examined (Kristofferson, White & Pelozza, 2014). Impression management, which describes the tendency for individuals to present themselves in a positive light to others, was shown to facilitate Slacktivism across 5 comprehensive studies by Kristofferson, White and Pelozza (2014); when participants were publically given a free poppy pin - to mirror the act of a 'share' on Facebook - participants were less likely to make a further contribution toward the cause they previously supported.

Kristofferson, White and Pelozza (2014) study supports Morozov's (2011) claims concerning 'feel good' online activism, although, the physical act of sharing a free poppy is arguably dissimilar to sharing a post on Facebook and may not recognise the attitudes of those online (Lee & Hsieh, 2013). Stieglitz and Dang-Xuan (2013) revealed that people share emotional posts on Facebook more frequently than neutral ones, and supports how an individual's emotional characteristics may influence how they interact on Facebook (Cuff, Brown, Taylor & Howat, 2016). However, research has yet to investigate the relationship between empathy and Clicktivism, despite a prominent finding that empathy is consistently shown to be associated with a personal incentive to help or support others and charitable and social movements (Prot & et al., 2014; Bosancianu, Powell & Bratovic, 2013). Empathy is defined as the ability to understand and share in another person's emotional state, and the behaviour of comforting others (Cohen & Strayer, 1996). Vossen and Vaulkenburg (2016) showed that increased online activity on Facebook facilitated the development of empathetic skills that nonetheless motivated the reasons for using Facebook facilities, like the chat feature to send encouraging words of support, or to check up on family and friends (Khan, Gangne, Yang & Shapka, 2016).

Together, these findings suggest that the way users interact with Facebook facilities may be related to their personality characteristics (Khan, Gangne, Yang & Shapka, 2016). Therefore, this research aims to investigate the predictive value of empathy in facilitating the engagement in Clicktivism on Facebook. The literature review will begin by distinguishing online activism (Clicktivism) from traditional activism, to determine whether such definitions portray the users who engage in Clicktivism appropriately. The discussion will then review how Clicktivism on Facebook has fostered and hindered real-world action, outlining key research in social psychology to explain the tangible benefits of Clicktivism and civic engagement. The final section will discuss the significance of empathy as a prominent finding suggests empathy may be a precursor to prosocial acts like donation giving and thus building upon the research rationale.

### *1.1 Defining Online Activism*

Activism covers a variety of real-world practices like flash mobs, parades and boycotting and other public acts of protest that nonetheless attempt to encourage social change (Skoric, 2012). While social activist movements like Black Lives Matter seek to raise awareness about social issues, charitable organisations like Cancer Research UK also incorporate real-world practices like marathon runs or volunteering events to raise money toward finding a cure (Ihm, 2017). Online activism, however, describes behaviours performed by individuals or groups affiliated with either social, political or charitable organisations who use social media to raise awareness and support (Fatkin & Lansdown, 2015). Activists and charity organisations seek to maximise their impact through social media, with many movements gaining international attention (Jones & Wayland, 2013). One attractive advantage of online activism compared to traditional activism is the freedom of geographical and time constraints - information can spread quickly online and increase the attention and likelihood of support from social media users who are not immediately affected by the issues being presented (Skoric, 2012).

Clicktivism and Slacktivism are terms used interchangeably by researchers to describe how users of social media interact with content related to online activism (Gleeson, 2014). However, subtle connotations exist between each definition (Fatkin & Landiosn, 2015). When the term Clicktivism is used, it often suggests that those who engage in the active sharing of information serve a crucial role in raising awareness and keeping the online world informed about current events (Ihm, 2017). For instance, while 'sharing' pictures and videos concerning Breast Cancer will not lead to a cure, it has been argued to encourage women to be diligent about breast examination and be better informed about the risk factors (Skoric, 2012). Slacktivism, however, implies that such acts make little to no difference in the real world and is merely done to make the participant "feel good" (Morozov, 2011). In another example, millions of Facebook users changed their profile pictures to a cartoon character in an act of support against child abuse, however, critics were sceptical about whether the act was a form of bandwagoning

of social media users to appear morally righteous (Skoric, 2012). Nevertheless, both terms imply an intention to raise awareness but with conflicting motivations.

Despite the discrepancy between each term, there may be justified reasons why users of social media may choose to support real-world organisations and movements online. Real-world activism can put individuals at risk that may inhibit their likelihood to engage in collective acts of support (Theocharis & Lowe, 2016). For example, The Mississippi freedom summer project of 1964 experienced a quarter of its members drop out of the civil protests once violence ensued against churches and institutions affiliated with members of the civil rights movement (Mockler, 2013). Therefore, Clicktivism provides a risk-free method of support that is both simple and does not consume much time. Conversely, not all movements place the participant at risk of harm. Morozov (2011), who popularised the term Slacktivism, claimed that genuine activism can be distinguished by a campaign's objectives: He considered the Facebook page called "Save the Children of Africa" as an example of Slacktivism because it attracted over 1.7 million members, but only £12,000 or more was contributed by its members. Obar (2014) associated this result because of the Ringelmann effect - the tendency of individual members to become less productive as group size increases.

Morozov (2011) argued that how much support an online movement attracts in the form of 'Shares' and 'Likes' (features on Facebook showing support or admiration) is superficial and displaces the value of a pro-social contributions like giving donations. Gleeson (2014) however, suggested that Slacktivists are genuine in their support, but may misunderstand the value behind their actions. Obar (2014) argued that the main attraction toward online activism is its convenience and simplicity. To participate in Clicktivism does not require a joining or sign-up process, and therefore leads to little commitment being invested toward a chosen real-world movement (Gleeson, 2014; Obar, 2014). A consistent finding shows how individuals who dedicate time to online activism by signing petitions, writing statuses, discussing real world affairs with friends would also continue their investment offline by donating and partaking in voluntary charity events to raise money for their chosen movement (Ihm, 2017; Fatkin & Landiosn, 2015; Gleeson, 2014).

Following from Gleeson's (2014) argument, it may be inappropriate to dismiss online acts of support as Slacktivism as more attention should be drawn to increase the personal incentives of those who engage in Clicktivism. Nevertheless, Facebook continues to be a popular platform where Clicktivism transpires because of its abundant facilities (Schumann & Klien, 2015).

### *1.2 How Facebook Facilitates Clicktivism*

Facebook continues to be a common platform where online activism occurs through its abundant features (Mayshak & Sharman, 2016). For one, Facebook enables its users to generate a public or semi-public personal profile so they can be identified by their family and friends, and offer the opportunity to interact with those of similar interests and develop social relationships (Mayshak & Sharman, 2016). With regards to activism, the leverage users hold over their online profiles allows them to construct an online identity that reflects their innermost values and beliefs (Skoric, 2012). While a Facebook profile picture is used to identify the user amongst their peers, it can also represent their political views—Facebook users who supported marriage equality would change their profile picture to a red equals sign, the symbol of the Human Rights campaign (Chapman & Coffe, 2016).

The use of Facebook to facilitate Clicktivism largely depends on the objectives (Howard, Savage, Saviaga, Toxtli & Monroy-Hernandez, 2016). To elaborate, increasing the number of 'likes' on a Facebook group like the Human Rights Campaign can act as an indication of a movement's success (Chapman & Coffe, 2016). In this case, these 'likes' act as a form of online currency to denote the amount of individual participation an online campaign attracts (Hill & Hayes, 2015). Social, political and charitable organisations can achieve several goals at once through Clicktivism, one of them to increase public interest and awareness (Fatkin & Lansdown, 2015). However, critics against Clicktivism argue that such superficial measures of success rely on collective participation, and awareness without a real-world outcome deteriorates the quality of a well-intended campaign (Hill & Hayes; Morozov, 2011). According to this view, the amount of views, likes or shares a campaign acquires is not a good indicator of how successful a campaign is, although this may not be a necessary criticism of all social movements.

Critics have argued how changing a profile picture is not comparable to offline participatory acts like a bus boycott (Rotman & et al., 2011). Conversely, such criticisms neglect how the collaboration of Facebook users and online campaigns had played during in the Tunisian uprising: up to 300,000 Tunisians registered on Facebook within two months during the uprising to vocalise the oppression faced in their country which eventually gained international attention (Passini, 2012). Therefore, raising awareness plays a facilitating role and is considered the first step toward collective action (Skoric, 2012). Additionally, these findings stress the importance of clicktivists behaviours: the reach of activists is extended through the internet that can stimulate those who have an interest toward a social or political cause. Nevertheless, Clicktivism is often dismissed as a

pointless exercise and research continues to debate whether the activity is a precursor to social change, or Slacktivism, which serves to make the user 'feel' and 'look' good (Skoric, 2012; Morozov, 2011).

### 1.3 The Slacktivism Debate on Facebook

The criticisms against Clicktivism were amplified after the alleged failure of the Kony 2012 movement to generate an effective turnover despite an overwhelming level of support on Facebook (Taylor, 2014). The *Invisible Children*, a social movement, began an online campaign labeled "Kony 2012" to instigate legal action against Joseph Kony for his war crimes and violence toward children in Uganda (Taylor, 2014). In six days, the movement generated the support of 70 million Facebook users throughout the world, through the very features designed to facilitate social relationships (Skoric, 2012). The collective act of 'sharing', 'liking', 'commenting' and other uses of Facebook facilities enabled Kony 2012 to become the fastest growing movement in 2012 (Skoric, 2012). Facebook users would 'share' videos and photos produced by the *Invisible Children* to their online community, which would then be repeated by other users until it achieved international attention (Schumann & Klien, 2015). Therefore, Facebook enabled individuals to support and actively contribute to raising awareness of the issues in Uganda, without being physically present or affiliated with the *Invisible Children* (Chapman & Coffe 2016).

Despite the support, the movement experienced a dramatic drop in popularity, with criticisms being made toward the *Invisible Children* and Facebook users who participated (Kilger-Vilenchik & Thorson, 2016). Firstly, critics argued that Clicktivism is a 'low-cost' act of support because it requires fewer personal resources to support a movement compared to donation giving which requires a greater cost to the individual's resources (Schumann & Klien, 2015). As Kristofferson, White and Pelozo (2014) demonstrated in their study of impression management, when participants received a free poppy in public compared to one being privately given, they were less likely to make a subsequent contribution such as donation giving. While the study highlighted how the 'low-cost' act of receiving a free poppy satisfied impression management motivations—the tendency for individuals to present themselves in a positive light to others - this may not reflect the 'low-cost' act of sharing a post on Facebook.

Fatkin and Lansdown (2015) performed a content analysis of online messages being sent in support of those who were trapped in their houses because of heavy forecasts of snow. The results revealed evidence of increased attention and awareness toward the organisation, but also pictures of users actively going out to assist stranded strangers, provide shelter and deliver food, notwithstanding a sharp increase of donations toward the Red Cross (Fatkin & Lansdown, 2015). While the increase in donations is difficult to attribute to Clicktivism, the study shows the capacity for willing individuals to go beyond their available resources and place themselves at risk to help strangers, and this suggests the discrepancy between receiving a free gift, and being alerted of a casualty on an online news feed. This finding emphasises the significance of clicktivist activities as they were central to alerting and further gathering support of strangers to help in a crisis (Fatkin & Lansdown, 2015). Another criticism of Kony 2012 is that its failure showed how raising awareness created weak and superficial ties toward the movement and was insufficient in leading to social change (Obar, 2014)).

Critics would argue how 'liking' something on Facebook, or signing an online petition contributes to real world change (Hartley, Lala, McGarty & Donaghue, 2016). As the Kony 2012 movement began to decline pictures ridiculing the movement and those who participated through activities described as Clicktivism began to circulate online (Kligler-Vilenchik & Thorson, 2016). However, this is likely a reaction toward the *Invisible Children* as they attempted to profit on the success of the movement by selling merchandise, spending only 35% of its budget on projects in Uganda (Jones & Wayland, 2013). Nevertheless, critics argued that acts of Clicktivism sharing videos and content related to real-world issues had oversimplified the complex issues faced in Uganda (Kligler-Vilenchik & Thorson, 2016). The polarised shift in support shown in the Kony 2012 movement implied how low-cost acts of support do not facilitate a further commitment to support a movement.

In support, Vitak et al. (2011) derived from a sample of 4000 undergraduates about their participation in the 2008 presidential election and found that the most common form of activism involved watching a debate online and sharing the link on their news feed, but acts that involved greater commitment like attending a political rally were less frequent. This finding shows how being an active supporter online may not reflect a further commitment to support a movement offline, and how online activity may be predictive of the commitment toward an online organisation. Conversely, another consistent finding shows how individuals who dedicate time to online activism by signing petitions, writing statuses, discussing real world affairs with friends would also continue their investment offline by donating and partaking in voluntary charity events to raise money for their chosen movement (Ihm, 2017; Fatkin & Landiosn, 2015; Gleeson, 2014). A contrary finding by Theocharis and Lowe (2016), who provided their participants with a Facebook account and monitored their online and offline political participation for 6 months, found a negative effect on participation.

Together, these findings suggest that the frequency an individual engages in clicktivism may determine their level of investment in supporting an online cause offline. How active or passive a user is online may be

predictive of their engagement in both Clicktivism and their support online (Theocharis & Lowe, 2016). Nevertheless, research addressing the Slacktivism debate has not investigated how individual beliefs and personality characteristics may be predictive of their personal investment in Clicktivist activities on Facebook. Lee, Winterich and Ross (2014) shown how individuals may donate or engage in clicktivist activities to appeal to their moral identity, which refers to the personality traits, feelings, and behaviours. These aspects of clicktivist behaviours have yet to be explored and will be the focus of this research; more specifically, the role of empathy which is considered a precursor to prosocial behaviour (Prot & et al., 2014).

#### *1.4 The Significance of Empathy and Prosocial Engagement*

Empathy is commonly thought of as a multidimensional construct consisting of a cognitive, affective and sympathetic component (Cuff, Brown, Taylor & Howat, 2016; Vossen & Valkenburg, 2016). Sympathy is considered an expression of emotional concern in response to the perceived emotion in another person, such as feeling apologetic when seeing another in pain (Cuff, Brown, Taylor & Howat, 2016). Cognitive empathy describes the capacity to understand another's feelings, while affective empathy describes the experience of emotion being elicited by an emotional stimulus - for example, watching another person in distress may cause the observer to become distressed in response (Cuff, Brown, Taylor & Howat, 2016; Hein & Singer, 2008). Each respective construct is considered to be central to how some individual's respond to others and their own feelings, although it's important to recognise the functional differences between each construct (Cuff, Brown, Taylor & Howat, 2016).

Empathy is often inconsistently defined by researchers and this has led to some common misconceptions about empathy and prosocial behaviour (Cuff, Brown, Taylor & Howat, 2016; Nickell, 1998). Empathy is often described as the ability to understand and share in another person's emotional state, and the behaviour of comforting others (Cohen & Strayer, 1996). The latter part of this definition includes a behavioural component which is often debated in research. For example, Eisenberg, Eggum and Di Giunta (2010) argued that empathy is predominantly affective, but derives solely from cognitive processes. Voluntary behaviour, which are behaviours intended to benefit another, is considered a response to the affective and cognitive processes, and thus acts as a stimulus toward prosocial behaviour (Eisenberg, Eggum & Di Giunta, 2010; Hein & Singer, 2008). In this instance, empathy acts as an emotional response that mediates the desire to alleviate the distress of others through prosocial behaviours, like comforting or listening to others (Eisenberg, Eggum & Di Giunta, 2010).

Lee, Winterich, and Ross (2014) suggested that while empathy may motivate moral behaviours, individuals may still choose to be reserved to become aligned with their moral code. For example, Lee, Winterich and Ross (2014) shown that individuals who hold a moral attitude or code, for instance, a belief that another individual can change their circumstances, the receipt may be less inclined to support the individual even though they may empathise with them. This shows the influence of attitudes and beliefs and how they may restrict a further incentive to help others. With regard to Clicktivism, this may suggest that individual users who have high levels of empathy may empathise with the content on their page but may hold a moral code to not be further invested in their activities. This is evident in the decline of the Kony 2012 movement where once the organisers received backlash, the initial support the movement generated turned into ridicule (Kligler-Vilenchik & Thorson, 2016). This emphasises the importance of attitudes and beliefs and its role in how Facebook users engage with online content - while users had once empathised with the issues raised by the *Invisible Children*, many still withdrew their support in response to the the alleged swindling of donations (Hartley, Lala, McGarty, & Donaghue, 2016).

Helping behaviours may be closely related to having a helping attitude rather than being stimulated by empathy (Hein & Singer, 2008). For instance, helping behaviour may precede empathy in cases of emergencies (Pithers, 1999). Therefore, behavioural outcomes may not always be the result of an empathetic motivation but instead be a result of holding a prosocial attitude (Hein & Singer, 2008). However, neuroscientific research suggests that empathy is related to key areas in the brain which are activated when asking participants to intentionally empathise with others (de Greck & et al., 2012).

Stieglitz and Dang-Xuan (2013) shown how an emotionally charged post—a post where users express distress was more likely to receive responses and encouraging messages of support. Neuroscientific evidence shown how verbal statements were also shown to elicit a neural empathetic reaction (Blair, 2005) and even evoked by stimuli about a fictional or imaginary character (Pelligra, 2011; Singer & Lamm, 2009). This may occur online when Facebook users are faced with sensitive content and may be a stimulus to wanting to engage in Clicktivism (Mayshak, Sharman & Zinkiewicz, 2016).

Neuroscientific evidence seems to suggest a role of cognitive and affective components of empathy when engaging with others online considering the neural activity sensitive posts elicit in the brain. Moreover, Mayshak, Sharman and Zinkiewicz (2016) identified that one of the more common uses of social media was to find a supportive environment and join groups with similar others to collaborate ideas. Chan and Cheng (2016) argue that such positive environments elicit positive emotions, such as feeling joyful at being able to help another

person in distress. This may be a personal reward for when users engage in Clicktivism and may facilitate further incentive to support others as demonstrated in Fatkin and Lansdown's (2015) study of users who collaborated to support those stranded by the snow storm. Additionally, Vossen and Valkenburg (2016) shown across a longitudinal study how increased interaction on Facebook facilitates the development of affective empathy and sympathy. Cognitive empathy did not change, although the finding does suggest that active use on Facebook fosters the development of empathetic skills (Vossen & Valkenburg, 2016).

Vossen and Valkenburg (2016) finding conflicts with those made by Konrath, O'Brein and Hsing (2011) who found a declining level of empathy in students since the introduction of social networking. The main support for Konrath, O'Brein and Hsing's (2011) findings is the absence of visual cues in online communication (Walther, 2011). Visual cues such as showing distress and discomfort may facilitate cognitive empathy, however, online communication was considered not to facilitate the development of empathetic skills (Theocharis & Lowe, 2016). However, Facebook offers the ability to communicate using a camera which may replace the importance of visual cues required between users, and may further stimulate the development of each construct of empathy (Vossen & Valkenburg, 2016). In addition, the ability to empathise is crucial in social functioning and social interaction—the ability to mentally represent the emotions of others is required to recognise and share the emotions of other, and may stimulate supportive behaviours (Chan & Cheng, 2016).

In summary, empathy may be a predictor of further engagement in Clicktivism however to date, this association has not been investigated. While each construct of empathy is functionally different, research suggests that high levels of empathy may motivate subsequent helping behaviours and may be elicited by users on Facebook when they engage in Clicktivism (Chan & Cheng, 2016; Mayshak, Sharman & Zinkiewicz, 2016; Stieglitz & Dang-Xuan, 2013; Pelligra, 2011; Singer & Lamm, 2009). However, high levels of empathy may not always facilitate a prosocial response so it is important to consider the role of helping attitudes (Lee, Winterich & Ross, 2014).

### *1.5 Rationale and Hypothesis*

The rationale for the present study is to investigate whether higher scores of empathy (affective, cognitive and sympathy) is predictive of the engagement in Clicktivist activities such as sharing posts and signing petitions on Facebook. More specifically, this research sought to explore how prolific use of Facebook (determined by time spent) and frequency of use in the traditional Facebook facilities may mediate the level of engagement in Clicktivism. As prior research has shown, active use of social media facilitates the development of empathy and is crucial to developing social skills online (Vossen & Valkenburg, 2016). Additionally, research has shown how greater engagement in clicktivist behaviours such as signing online petitions were also associated with offline prosocial behaviours (Ihm, 2017; Fatkin & Landiosn, 2015). However, research has yet to investigate the extent of empathy and helping attitudes and its ability to predict further investment in Clicktivism.

At the time of conducting this research, no psychometric scale has been developed to measure the level of engagement in clicktivist activities, therefore the part of the study involves the development of a Clicktivism scale which aims to capture the engagement in Clicktivism. For the purposes of this study, engagement in Clicktivism is defined as the psychological and physical engagement in activities related to behaviours associated with Clicktivism. Moreover, the adapted scale intends to capture the use of various Facebook facilities like the 'sharing' and 'liking' option, as well as high-cost behaviours including signing online petitions and making donations (Schumann & Klien, 2015).

Based on previous research, the present study hypothesised that greater clicktivist engagement is predicted by time spent online, affective empathy and sympathy, and helping attitudes. Affective empathy and sympathy were hypothesised to predict engagement in Clicktivism as Vossen and Vaulkenburg (2016) found that increased time on Facebook stimulated the development of both affective empathy and sympathy. Time spent was hypothesised based on shown that active Facebook use was associated with increased use of Facebook facilities; Active and passive usage of Facebook was shown to indicate the engagement in Facebook facilities (Rozen, Askalani & Senn, 2012). A passive user would typically scroll through their news feed and may 'share' or 'like' on habit, compared to an active user who routinely engages in many of Facebook's facilities (Howard et al., 2016).

Helping attitude is arguably separate from empathy, however was included in the present study to determine the influence on attitude on in Clicktivism. A short big 5 scale was introduced to determine whether the variance could be accounted for by other personality factors as it was shown to influence patterns of use on Facebook (Bachrach, Kosinski, Graepel, Kohli, & Stillwell, 2012).

## **2. Method**

### *2.1 Participants*

A total of 168 participants (116 females and 46 males) from a UK University were recruited using an opportunity sample through the research participation scheme (RPS) where they were awarded credit for participation. The

age of the participants ranged from 18 to 56 with a mean age of 22 ( $SD = 5.47$ ). A student sample was selected as earlier research indicated students typically engage in Clicktivism and likely to share and post videos regarding social issues on their news feed (Chapman & Coffé, 2016; Ozimek & Bierhoff, 2016). Recruited participants were directed to an online questionnaire generated through Google Forms, and were awarded a single credit upon completion. Participants were required to have an online public or semi-public profile and accessed their account regularly. Participants were rejected if they did not access their account at all as they may not be familiar with the recent changes and increased facilities on Facebook (Junco, 2012). It is important to note that this data collection took place prior to the COVID-19 pandemic.

## 2.2 Materials

The Facebook frequency and use of activities scale (FFAS) by Junco (2012) was used to calculate the frequency of engaging in typical activities on Facebook and comprised of three sections. Section one required participants to indicate their average time spent per day on Facebook using a drop-box column to allocate “hours” and “minutes”. As Junco (2012) suggested, a continuous rather than a categorical measure was desirable to avoid a presumptuous underlying distribution of the data that may not occur. Section two indicated how many times participants “checked” Facebook per day. Finally, section three measured the frequency of 14 item typical Facebook activities (*tagging photos, posting videos for example*) using a 5-point frequency scale (5 = *very frequently*, 1 = *never*). An adaptation of Junco’s (2012) scale was developed to create the outcome variable Clicktivism.

Permission to modify the FFAS (Junco, 2012) was granted and the researcher was permitted to reword the original scale items with activities related to Clicktivism. The items were created through a review of literature on Clicktivist activities (Ihm, 2017; Fatkin & Landiosn, 2015; Gleeson, 2014; Theocharis & Lowe, 2016) which indicated the types of ways Facebook users may support an online movement, charity or political organisation (*sign an online petition, share videos relating to charities*, for example). Similar to Junco’s (2012) original scale, the adapted scale used a 5-point likert scale (5 = *very frequently*, 1 = *never*) and measured the frequency of activities using 12 activities relating to Clicktivism. To determine the validity a test-retest study was performed with the recruitment of seven participants (4 female & 3 male) who completed the form online using Google forms. The participants suggested some question be revised for clarity which were later added and included in the retest. The total score indicates Clicktivism, which describes the physical and psychological energy devoted to clicktivist activities (Junco, 2012).

The adolescent measure of empathy and sympathy (AMES) by Vossen, Piotrowski and Valkenburg (2015) measured the affective, cognitive and sympathetic constructs of empathy using a 12 item, 5-point likert scale (*never - always*). Each construct of empathy is divided into 4 items across the scale. Example items are “When my friend is sad, I become sad too” (affective empathy), “I can tell when a friend is angry even if he/she tries to hide it” (cognitive empathy) and “I feel concerned for other people who are sick” (sympathy). The average of each subscale is divided by 4 to acquire each construct of empathy - cognitive, affective and sympathy. Prot et al (2014) identified that individuals who score highly on all three constructs exhibit more prosocial behaviours and suggests that participants who score highly in each construct are likely to show higher levels of engagement in Clicktivism.

The Helping Attitudes Scale (HAS; Nickell, 1998) is a 20-item measure of the respondents’ beliefs, feelings and behaviours associated with helping. Each item revolves around helping behaviours like *‘helping friends and family is one of the great joys of life’* and measured using a 5-point likert scale (1 = strongly disagree to 5 = strongly agree) with six items being reverse scored (for example, *helping others is a waste of time*). The scores are then summed to indicate one of two dichotomous variables - a score of 60 indicates a *neutral* attitude, whereas scores above indicate a *prosocial* attitude which denotes a helping attitude.

The 10-item short version of the Big Five Inventory (BFI-10) by Rammstedt and John (2007) measured extraversion, conscientiousness, neuroticism, openness and agreeableness using a 5-point likert scale (1 = *disagree strongly* - 5 = *agree strongly*). Each construct is calculated based on 2 items per personality trait with one question being reverse scored, for example: Extraversion is determined by averaging items *‘is reserved’* (reverse scored) and *‘is outgoing, sociable’*. A short version of the popular Big Five personality was selected to avoid the present study from becoming too long due to the high volume of scales being used in the present study (Credé, Harms, Niehorster & Gaye-Valentine, 2012). However, a limitation of the present scale highlighted by the authors is the agreeable subscale demonstrated the poorest internal reliability (Rammstedt & John, 2007). Nevertheless, the psychometric properties of the BFI-10 demonstrated similar psychometric properties as the popular big 5 personality scale and thus deemed suitable for the intended length of the present study.

## 2.3 Design and Analysis

A between-subject’s multiple regression design was used where participants completed an online survey on

Google Forms. The predictor variables of cognitive and affective empathy and sympathy, Facebook engagement, and the big five aspects of personality were first measured for internal reliability before being entered into the multiple regression analysis. Analysis of the adapted FFAS (Junco, 2012) 12 item scale demonstrated good internal consistency with a Cronbach's  $\alpha$  of .89 and comparable to the original FFAS scale by Junco (2012;  $\alpha = .80$ ). Each subscale of the AMES (2015) scale consisted of 4 items and showed acceptable internal consistency for affective ( $\alpha = .79$ ) and cognitive ( $\alpha = .80$ ) empathy, and sympathy ( $\alpha = .72$ ). Finally, the HAS scale demonstrated acceptable internal consistency ( $\alpha = .82$ ). Each scale therefore was suitable for statistical assessment.

The BFI-10 (Rammstedt & John, 2007) demonstrated inconsistent internal reliability for each subscale (Extraversion  $\alpha = .59$ , Agreeableness  $\alpha = .38$ , Conscientiousness  $\alpha = .44$ , Neuroticism  $\alpha = .61$ , Openness  $\alpha = .37$ ). While it was expected that agreeableness may show low internal reliability, none of the personality constructs were above the satisfactory Cronbach's alpha of .7 to ensure the internal consistency of each construct. To delete any of the 2 items representative of each construct would have presented a single item construct and would not be acceptable to use for analysis. The researcher made a best interest decision to exclude the BFI-10 (Rammstedt & John, 2007) as the low reliability would impact analysis (Credé, Harms, Niehorster & Gaye-Valentine, 2012)<sup>1</sup>.

The outcome variable, Clicktivism, describes the investment of physical and psychological energy involved in activities related to Clicktivism. Once the results were finalised, gender was coded (0 = Male, 1 = Female) and the respective variables were checked for assumptions and analysed using SPSS version 24. The variable Clicktivism was then analysed with the predictor variables (cognitive, affective and sympathy, helping attitude and time spent) using multiple linear regression.

#### 2.4 Procedure

Participants viewed an online information sheet to outline the purpose of the study. Clicktivism was defined along with an example as the term is not familiar with Facebook users. Once the information sheet was read, participants were directed to the consent form and indicated their Facebook usage (*Never, Often, Very regularly*). Participants were provided a link to the Google forms questionnaire where they completed the experiment. To ensure anonymity, all participants were instructed to provide their unique RPS quote which would be used to identify the participant and destroy their data if they decided to withdraw. The average time taken during the pilot study took approximately 10 minutes, however, participants were encouraged to take as long as required to complete the task and their right to withdraw at any time. Upon completion, participants were greeted with a debrief and explained the nature of the study with an opportunity to ask further questions and if desired, to withdraw at their discretion by closing their web browser.

### 3. Results

#### 3.1 Descriptive Statistics

In this sample, participants spent a substantial amount of time on Facebook per day (105.40 minutes; *SD*: 78.12). A crosstabulation of gender against helping attitude (prosocial vs neutral) revealed that only six participants (2 female and 4 male) were identified as neutral, whereas the rest were considered prosocial (116 females and 46 males). The means (*M*), standard deviations (*SD*), confidence intervals (*CI*) and Cronbach's alpha of the predictor variables are presented in Table 1.

Table 1. Descriptive statistics (mean and standard deviations) and 95% Confidence intervals [*CI*] and (alpha sign) for all predictor variables used in hierarchical regression

Predictor	<i>M</i>	<i>SD</i>	<i>N</i>	Clicktivism	
				95% <i>CI</i> [Upper, Lower]	Cronbach's $\alpha$ (# of items)
Affective	3.13	.83	168	[-2.99, 1.03]	.79 (4)
Cognitive	3.91	.61	168	[-.32, 5.60]	.81 (4)
Sympathy	4.22	.61	168	[2.16, 8.20]	.72 (4)
FB Time	105.04	78.12	168	[.00, .03]	-
HAS	.96	.18	168	[-12.90, 4.87]	.82 (20)

Note: HAS = Helping attitude scale. Coded: 0 = neutral, 1 = prosocial. FB Time = time spent on Facebook



measured in minutes.

### 3.2 Assumptions

The data met the assumption of independent errors (Durbin-Watson value = 1.988). The histogram of standardised residuals showed that the data contained approximate, normally distributed errors and P-Plot of standardised residuals showed point to be at an acceptable range. Assumptions of homogeneity of variance and linearity, and non-zero variances were acceptable, and assumption of multicollinearity was met.

### 3.3 Multiple Linear Regression

A multiple linear regression was run using the enter method to predict the variability of Clicktivism ( $M = 33.22$ ;  $SD = 10.65$ ) using cognitive and affective empathy, sympathy, helping attitude (neutral, prosocial) and time spent online. Together, the predictor variables explained 12.2% ( $R^2 = 12.2\%$ ) of the variance in clicktivist engagement, and showed a significant equation:  $F(5, 167) = 5.660, p < .001$ . Affective empathy ( $P = .34$ ), FB Time ( $P = .55$ ) and helping attitude ( $P = .37$ ) did not predict clicktivist engagement. Both cognitive empathy ( $B = 2.96, p = .02$ ) and sympathy ( $B = 5.18, p < .001$ ) explained a significant proportion of the variance in Clicktivist engagement. The results suggest that participants with high cognitive empathy and sympathy scores were likely to invest more physical and psychological energy toward activities associated with Clicktivism (see table 2). Beta scores ( $\beta$ ) showed that sympathy ( $\beta = .30$ ) was the strongest predictor, followed by cognitive empathy ( $\beta = .17$ ).

Table 2. Summary of coefficient Variables from linear multiple Regression Analyses for Variables Predicting Clicktivism (N = 168)

	Unstandardised		Standardised		
	Coefficients		Coefficients		
	B	Std. Error	Beta ( $\beta$ )	<i>t</i>	Sig.
(Constant)	4.60	6.71	-	.68	.49
Affective	-.98	1.02	-.07	-.96	.33
Cognitive	2.96	1.33	.17	2.21	.02
Sympathy	5.18	1.53	.30	3.38	.001
FB Time	.01	.01	.14	1.93	.55
HAS	-4.01	4.50	-.07	-.89	.37

## 4. Discussion

The present study investigated the extent of empathy (cognitive, affective and sympathy), helping attitude (neutral and prosocial) and time spent online on being able to predict engagement in Clicktivism. An unexpected and inconsistent internal reliability of the BFI-10 (Rammstedt & John, 2007) lead to the exclusion of five variables. Nevertheless, the hypothesis that engagement in Clicktivism would be predicted by affective empathy, sympathy, and time spent online was rejected. The present study found that cognitive empathy and sympathy were predictive of engagement in Clicktivism and explained some of the variance. The discussion will address the findings with relevance to past research.

Arguments against Clicktivism would dismiss the role of activities individual users of social media engage in to support real world movements online (Hartley, Lala, McGarty, & Donaghue, 2016). Such behaviours including 'liking' and 'sharing' interactive content on Facebook is often considered low-cost and do not contribute to a further incentive to maintain the level of support shown online (Schumann & Klien, 2015). Research has shown how impression management motives may be satisfied through such low-cost behaviours, and may further deteriorate the incentive to contribute further toward a movement (Kristofferson, White & Pelozo, 2014). A consistent finding also revealed how the frequency of engagement with Facebook facilities were also likely to converge with commitment toward offline charities and political and social movements (Ihm, 2017; Vitak & et al., 2011). The present study investigated whether empathy and helping attitudes could predict engagement in Clicktivism as this has yet to be researched.

The present study offers some insight into the characteristics of those who show greater engagement in Clicktivism. Both cognitive empathy and sympathy were predictors of engagement in clicktivist activities, whereas affective empathy was not. This is likely due to the context of the present study as in Vossen and Vaulkenburg (2016) sample, they investigated the development of empathy in their participants in response to their friends and family. In this context, it is likely participants would recruit affective empathy as they may hold deeper relations compared to those held when merely scrolling through a newsfeed on Facebook. With regard to Clicktivism, participants may not feel immediately affected by the problems presented while they scroll, but they may be cognitively aware of the issues and sympathy may further influence the incentive to attribute a 'like' for example. As prior neuroscientific evidence revealed, empathy can be evoked by stimuli about fictional characters (Pelligra, 2011; Singer & Lamm, 2009) and may suggest why cognitive empathy and sympathy were significant predictors. Nevertheless, future research may further delineate how empathy is activated to further determine the role of cognitive empathy in whether individuals choose to engage in clicktivist behaviours or not.

It is often debated how moral attitudes may restrict the incentive to help others despite having an elevated level of empathy. (Lee, Winterich & Ross, 2014) in their study showed how even though individuals may empathise with another person, they hold firm moral attitudes that restrict their capacity to help others. Nevertheless, helping attitude was not shown to predict engagement in clicktivism. This may be due to the overwhelming number of participants in the present sample being identified as prosocial. Therefore, it is difficult to assume whether helping attitude mediates the engagement in Clicktivism in the present study; a future study may employ a more diverse psychometric scale that measures several beliefs rather than a dichotomous value. Moreover, time spent online was not predictive of engagement, however, this may be because time spent may not reflect the level of engagement Facebook users hold whilst spending time on Facebook. As prior research shows, those who engage in frequent acts of support also remain consistent with their support offline through increased likelihood to make donations (Ihm, 2017).

One of the most common reasons users access social media is to find a supportive environment (Mayshak, Sharman & Zinkiewicz 2016) Moreover, such incentives were shown to elicit positive emotions in individual participants (Chan & Cheng, 2016). While Clicktivism may not be the main reason individuals go online, there may be a personal reward and positive emotions attributed to engagement in Clicktivist. While the reasons why Facebook users engage in clicktivist activities continues to be debated, there seems to be room for research to explore the differences in acts consider low and high cost. There continues to be discrepancy between whether Clicktivism promotes ineffective activism (Kristofferson, White & Peloza, 2014). One way this study may have contributed to the debate would be investigate whether high or low costs acts were more likely to predict further engagement. For instance, were high-cost behaviours identified in the adapted Clicktivism scale also, likely to participate in a hypothetical task such as volunteering. Such an experiment may examine whether participants clicktivist behaviours remain self-consistent.

In conclusion, the present study found that cognitive empathy and sympathy were predictive of clicktivist engagement. This finding seems to suggest that aspects of user's personality may influence the likelihood of engaging in clicktivist, however, more research can be done to further add to the debate of Slacktivism as voiced by Morozov. Prior research has shown how greater engagement in Clicktivism also facilitates real-world activism (Ihm, 2017; Vitak & et al., 2011) yet questions remain on what type of activities are users likely to engage in most. This evidence may reveal whether clicktivists remain consistent with their offline selves.

## References

- Bachrach, Y., Kosinski, M., Graepel, T., Kohli, P. & Stillwell, D., (2012). Personality and patterns of Facebook usage. Paper presented at the 24-32. doi:10.1145/2380718.2380722.
- Blair, R. J. R., (2005). Responding to the emotions of others: Dissociating forms of empathy through the study of typical and psychiatric populations. *Consciousness and Cognition*, 14(4), 698-718. doi:10.1016/j.concog.2005.06.004.
- Boulianne, S., (2009). Does internet use affect engagement? A meta-analysis of research. *Political Communication*, 26(2), 193-211. doi:10.1080/10584600902854363.
- Chan, M. S. & Cheng, C., (2016). Explaining personality and contextual differences in beneficial role of online versus offline social support: A moderated mediation model. *Computers in Human Behavior*, 63, 747-756. doi:10.1016/j.chb.2016.05.058.
- Chapman, H. & Coffé, H., (2016). Changing Facebook profile pictures as part of a campaign: Who does it and why? *Journal of Youth Studies*, 19(4), 483. doi:10.1080/13676261.2015.1083962.
- Credé, M., Harms, P., Niehorster, S. & Gaye-Valentine, A., (2012). An evaluation of the consequences of using short measures of the big five personality traits. *Journal of Personality and Social Psychology*, 102(4), 874-888. doi:10.1037/a0027403.

- Cuff, B. M. P., Brown, S. J., Taylor, L. & Howat, D. J., (2016). Empathy: A review of the concept. *Emotion Review*, 8(2), 144-153. doi:10.1177/1754073914558466.
- de Greck, M., Wang, G., Yang, X., Wang, X., Northoff, G. & Han, S., (2012). Neural substrates underlying intentional empathy. *Social Cognitive and Affective Neuroscience*, 7(2), 135-144. doi:10.1093/scan/nsq093.
- Eisenberg, N., Eggum, N. D. & Di Giunta, L., (2010). Empathy-related responding: Associations with prosocial behavior, aggression, and intergroup relations: Empathy-related responding. *Social Issues and Policy Review*, 4(1), 143-180. doi:10.1111/j.1751-2409.2010.01020.x.
- Fatkin, J. & Lansdown, T. C., (2015). Prosocial media in action. *Computers in Human Behavior*, 48, 581-586. doi:10.1016/j.chb.2015.01.060.
- Gleeson, J., (2014). Can online groups ever change anything? A case study of the Sack Vile Kyle campaign. *Victoria*, 9, 11.
- Hartley, L. K., Lala, G., Donaghue, N. & McGarty, C., (2016). How activists respond to social structure in offline and online contexts: How activists respond to social structure. *Journal of Social Issues*, 72(2), 376-398. doi:10.1111/josi.12171.
- Hein, G. & Singer, T., (2008). I feel how you feel but not always: The empathic brain and its modulation. *Current Opinion in Neurobiology*, 18(2), 153-158. doi:10.1016/j.conb.2008.07.012.
- Hill, M. & Hayes, M., (2015). Do you like it on the.?: A case-study of reactions to a Facebook campaign for breast cancer awareness month. *The Qualitative Report*, 20(11), 1747.
- Howard, P. N., Savage, S., Saviaga, C. F., Toxtli, C. & Monroy-Hernandez, A., (2016). Social media, civic engagement, and the slacktivism hypothesis: Lessons from Mexico's el bronco. *Journal of International Affairs*, 70(1), 55.
- Ihm, J., (2017). Classifying and relating different types of online and offline volunteering. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 28(1), 400-419. doi:10.1007/s11266-016-9826-9.
- Jones, C. & Wayland, K., (2013). Activism or Slacktivism? The Role of Social Media in Effecting Social Change. Research Paper. School of Engineering and Applied Science: University of Virginia.
- Khan, S., Gagné, M., Yang, L. & Shapka, J., (2016). Exploring the relationship between adolescents' self-concept and their offline and online social worlds. *Computers in Human Behavior*, 55, 940-945. doi:10.1016/j.chb.2015.09.046.
- Kligler-Vilenchik, N. & Thorson, K., (2016). Good citizenship as a frame contest: Kony2012, memes, and critiques of the networked citizen. *New Media & Society*, 18(9), 1993-2011. doi:10.1177/1461444815575311.
- Konrath, S. H., O'Brien, E. H. & Hsing, C., (2011). Changes in dispositional empathy in American college students over time: A meta-analysis. *Personality and Social Psychology Review*, 15(2), 180-198.
- Kristofferson, K., White, K. & Peloza, J., (2014). The nature of slacktivism: How the social observability of an initial act of token support affects subsequent prosocial action. *Journal of Consumer Research*, 40(6), 1149-1166. doi:10.1086/674137.
- Lee, S., Winterich, K. P. & Ross, W. T., (2014). I'm moral, but I won't help you: The distinct roles of empathy and justice in donations. *Journal of Consumer Research*, 41(3), 678-696. doi:10.1086/677226.
- Mayshak, R., Sharman, S. J. & Zinkiewicz, L., (2016). The impact of negative online social network content on expressed sentiment, executive function, and working memory. *Computers in Human Behavior*, 65, 402-408. doi:10.1016/j.chb.2016.09.002.
- Mockler, A., (2013). Virtuous reality: Why the revolution will be tweeted, and retweeted Australian Conservation Foundation.
- Morozov, E., (2011). The net delusion: How not to liberate the world. London: Allen Lane.
- Obar, J. A., (2014). Canadian advocacy 2.0: An analysis of social media adoption and perceived affordances by advocacy groups looking to advance activism in Canada. *Canadian Journal of Communication*, 39(2), 211.
- Ozimek, P. & Bierhoff, H., (2016). Facebook use depending on age: The influence of social comparisons. *Computers in Human Behavior*, 61, 271-279. doi:10.1016/j.chb.2016.03.034.
- Pelligrà, V., (2011). Empathy, guilt-aversion, and patterns of reciprocity. *Journal of Neuroscience, Psychology, and Economics*, 4(3), 161-173. doi:10.1037/a0024688.
- Rammstedt, B. & John, O. P., (2007). Measuring personality in one minute or less: A 10-item short version of the

- Big Five Inventory in English and German. *Journal of research in Personality*, 41(1), 203-212.
- Rotman, D., Vieweg, S., Yardi, S., Chi, E., Preece, J., Shneiderman, B. & Glaisyer, T., (2011, May). 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). ACM.
- Rozen, D., Askalani, M. & Senn, T., (2012). Staring at the sun: identifying, understanding and influencing social media users. Research brief. Montreal, Canada: Aimia Inc.
- Schumann, S. & Klein, O., (2015). Substitute or stepping stone? assessing the impact of low-threshold online collective actions on offline participation: Substitute or stepping stone? *European Journal of Social Psychology*, 45(3), 308-322. doi:10.1002/ejsp.2084.
- Selleck, L. G., (2010). Pretty in pink: The susan G. komen. network and the branding of the breast cancer cause. *NJES: Nordic Journal of English Studies*, 9(3), 119.
- Singer, T. & Steinbeis, N., (2009). Differential roles of fairness- and compassion-based motivations for cooperation, defection, and punishment. *Annals of the New York Academy of Sciences*, 1167(1), 41-50. doi:10.1111/j.1749-6632.2009.04733.x.
- Skoric, M. M., (2012). What is slack about slacktivism? *Methodological and conceptual issues in cyber activism research*, 77, 77-92.
- Stieglitz, S. & Dang-Xuan, L., (2013). Emotions and information diffusion in social media-sentiment of microblogs and sharing behavior. *Journal of Management Information Systems*, 29(4), 217-248. doi:10.2753/MIS0742-1222290408.
- Taylor, A., (2014). Invisible Children, organization behind kony 2012 video, to wind down operations. Washington: WP Company LLC d/b/a The Washington Post.
- Taylor, H. R., (2016). The Whole Damn System is Guilty as Hell: An Analysis of Social Movements, Social Media, and the Ongoing Fight for Racial Justice in America.
- Theocharis, Y. & Lowe, W., (2016). Does Facebook increase political participation? evidence from a field experiment. *Information, Communication & Society*, 19(10), 1465-1486. doi:10.1080/1369118X.2015.1119871.
- 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), 17-114. doi:10.1089/cyber.2009.0226.
- Vossen, H. G. M. & Valkenburg, P. M., (2016). Do social media foster or curtail adolescents' empathy? A longitudinal study. *Computers in Human Behavior*, 63, 118-124. doi:10.1016/j.chb.2016.05.040.
- Walther, J. B., (2011). Theories of computer-mediated communication and interpersonal relations. *The handbook of interpersonal communication*, 4, 443-479.

---

<sup>1</sup> For the sake of thoroughness and comparison the BFI-10 constructs were added to a further regression, but this had no real impact on the pattern of results found, and none of the individual BFI-10 constructs were found to be significant predictors.

## Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).