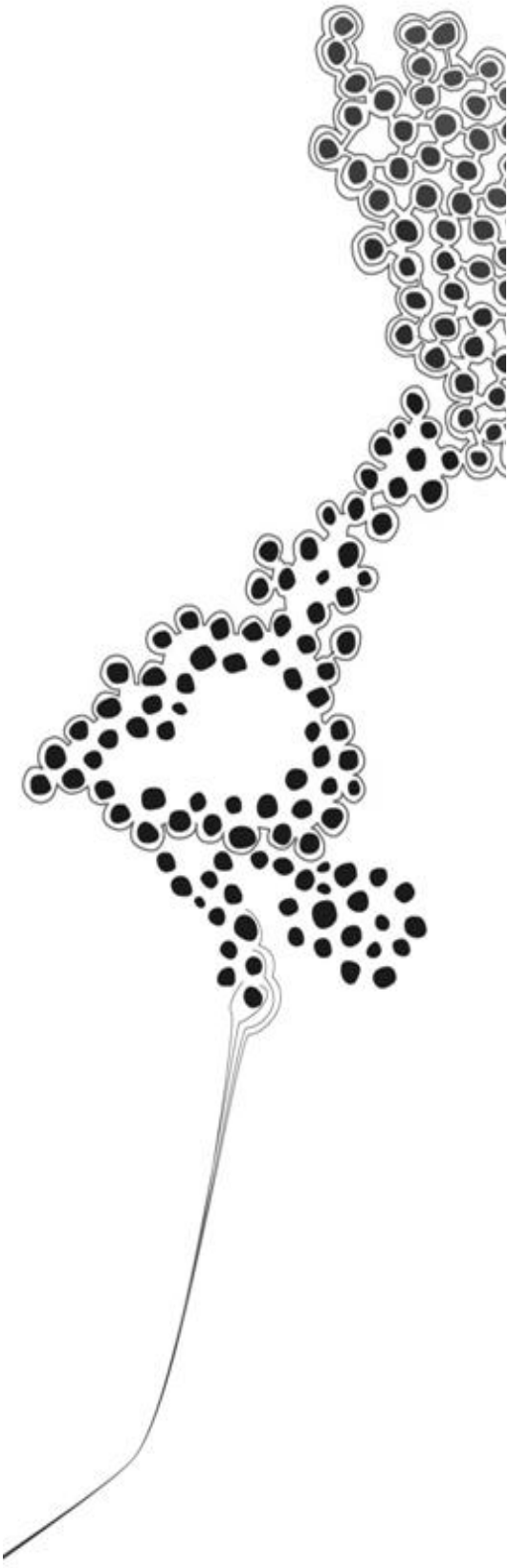

'You can't see me'
The role of group conformity and anonymity within the social media - using the example of flaming

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ABSTRACT

The purpose of this research is to investigate if conformity on social media platforms predicts flaming behaviour and if anonymity increases the appearance of this phenomenon. Since social media platforms such as Facebook are getting ever more popular, also flaming behaviour occurs more often. In addition group conformity effects might occur on Facebook. To disclose this association between group conformity and conformity on Facebook an online study was developed. In the first section, general data of the participants were asked. In addition the participants had the direction to fill in either a pseudonym or their full name to give them the feeling either to be anonymous or not. To measure if a higher number of likes of flaming comments lead to conformity, the agreement with flaming comments was measured throughout the second section of the conducted study. Also a self-report was developed in order to measure the tendency to flame of each participant. Results showed that a marginal effect of Number of Likes on Agreement exists, but this findings need a careful interpretation. Additionally no was effect found for Anonymity on Agreement nor on flaming behaviour. Based on the number of participants in the control group and in the conditions of this study, it could not be tested, if conformity predicts flaming behaviour.

But still this research is of essential importance since other studies found that manipulation of likes could influence conformity and that anonymity could increase flaming behaviour.

1. INTRODUCTION

After uploading a video of cruelty to animals on the social media platform Facebook a nightmare began for the 21-year-old Jan from Germany. Affronts and death threats were pronounced on Facebook and got copious likes.

The usage of the World Wide Web and especially the usage of social media platforms continuously increased within the last years (Kaplan and Haenlein, 2010). Simultaneously, the phenomenon 'flaming' occurs more frequently. Flaming is defined by Moor (2007) as 'displaying hostility by insulting, swearing or using otherwise offensive language'. According to Kiesler and colleagues (1985), the rapid divulging of affronts in the online world refers to the impersonal setting of computer communication, reduced social presence and de-individuation. All these factors strengthen online dis-inhibited behaviour (Joinson, 1999).

To understand the people's behaviour in cyberspace, knowledge of the traditional psychology is not longer sufficient. It might be rather useful to explore new rules (Barack & Suler, 2008) which can be adapted to psychological behaviour in the world wide web. Some psychological phenomena are unique to the cyberspace, while others are similar to effects in the offline world (Barack & Suler, 2008). Characteristics of cyberspace, such as anonymity, 'result in greater closeness and intimacy between group members in some cases and in greater hostility and aggressive behavior in others' (Katelyn, McKenna & Green, 2002, p. 116).

In general, people have a tendency to come together and shape groups (Backstrom et al, 2006) or join an existing group. And although the members of online groups can be totally anonymous and physically isolated in the online world, a sense of 'we-ness' can develop (Katelyn, McKenna & Green, 2002, p. 117). Spears and colleagues found that anonymity and the lack of physical appearance could even lead to an increasing identification with or attachment to groups, that in turn could lead to higher conformation of the group members with the social group norms (Spears, Lea & Lee, 1990). But being a member of a group also involves the risk of experiencing social pressure to conform. Referring to the concept of selfpresentation, people have the desire to control other people's impression about themselves in social interactions (Goffman, 1959). Flaming behaviour could be easily imitated to leave a positive mark in a group or forced by others to achieve admission. Based on these findings, the tendency to show flaming behaviour on social media platforms might increase, since group members want to affiliate with the group to fulfill their needs (Katelyn, McKenna &

Green, 2002).

1.2. Flaming

According to O'Sullivan and Flanigan (2003), new technologies always come along with advantages. Nevertheless, they also show the 'dark side of technology's social effect' (p.70). One disadvantage of new technologies and social media platforms, for example, is the appearance of antisocial online behaviour named “flaming” (O'Sullivan & Flanigan, 2003). Problematic with flaming is that it could produce psychological discomfort and emotional pain for the victims (O'Sullivan & Flanigan, 2003).

Moor and colleagues found an explanation for the frequent use of offensive language within social media – the so-called de-individuation (Moor et al, 2010). De-individuation or submergence in groups occurs when the awareness of the self is drawn away by situational characteristics (Moor, Heuvelman & Verleur, 2010). Such situational characteristics describe, amongst others factors, the online dis-inhibition effect by Suler (2004). They also concluded that, although people say they do not flame, comments on Youtube proofed to be different. According to Moor and colleagues (2010) people flame less for entertaining but rather for expression of disagreement or as a response to a perceived offense by others.

Johnson, Cooper and Chin (2009) found that flaming could be directed in an other individual or at a negotiation context. They conclude that 'when social identity and ingroup status are salient, computer mediation can decrease flaming because individuals focus their attention on the social context (and associated norms) rather than themselves' (Johnson, Cooper & Chin, 2009 p. 661). Based on this assumption, this research will examine if conformation to a group could influence the tendency to flame, and if anonymity could increase this.

2. THEORETICAL FRAMEWORK

2.1. The concept of group conformity

The field of social psychology generates the notion that people are social by nature. Group conformity is one of the consequences of such social influence. It implies that people change their behaviour or attitudes according to the groups' view or the opinion of the majority.

Asch is seen as a pioneer in the field of social pressure and group conformity. During his research, the respondents were shown lines and they should assess which of the three comparable lines is identical with line X (Asch, 1955). Whereas the respondent was totally unsuspecting, the rest of the group gave more and more incorrect answers with the result that the unaware respondents began to conform to them.

The kinds of influence that play a role for the development of group conformity are twofold: the normative and informative influence. Normative influence appears when persons conform, because they want to leave a positive or social desirable mark (Deutsch & Gerard, 1955). People feel qualmish when their opinions differ from others and when they fear animosity or antipathy (Deutsch & Gerard, 1955). The other kind of influence is the informative one which says, that people adapt to a group due to a lack of information. Thus, they want to decrease uncertainty and rely on the group's opinion (Deutsch & Gerard, 1955). In general, the normative influence is more considerable than the informative one. When people become a member of social media platforms, they might feel normative pressure to be agreeable so that conformity could easier take place.

Until now, conformity has rarely been considered in conjunction with Facebook as social media platform (Bak & Keßler, 2012). Nevertheless, two studies proved that conformity could take place on Facebook (Bak & Keßler, 2012; Egebark & Ekström, 2012). The 'like' button on Facebook accounts for this assumption since it offers the option to announce the user's attitude without much cognitive effort (Bak & Keßler, 2012) like: I like it, when you like it.

2.2. The concept of anonymity

Siegler et al found that dis-inhibited behaviour occurs more often when people communicate via computer rather than face-to-face (1986). For this reason the online dis-inhibition effect by Suler (2004) will be briefly clarified. The online dis-inhibition effect consists of two opposite sides: the *'benign dis-inhibition'* and the *'toxic dis-inhibition'*. Important for this study is what Suler calls the *'toxic dis-inhibition'* (2004). Toxic dis-inhibition implies rude language, harsh criticism, anger, hatred, threats or the visit of the 'dark underworld of the internet' (Suler, 2004). According to him, six interacting factors lead to this phenomenon: dissociative anonymity, invisibility, asynchronicity, solipsistic introjection, dissociative imagination, and minimization of authority (2004). To clarify the effect of anonymity in cyberspace, the factors *invisibility*, *dissociative imagination* and *dissociative anonymity* are important to explain.

Invisibility – you can't see me: On many or the most internet websites people can not see each other. Users do not even know or suffer the presence of the user on specific websites. This physical invisibility amplifies the dis-inhibition effect, because they do not receive a physical response and could see or discuss whatever they want without inhibited feelings (Suler, 2004).

D*issociative imagination – it's just a game*: Suler argues that some users see their online life as a game with rules and norms that they do not apply to the offline world (Suler, 2004). Consequently, people consciously create imaginary characters what could influence the 'online living' (Suler, 2004).

Dissociative anonymity – you can't see me

People have the possibility to hide or alter their real identity and to create their own pseudonyms (Suler, 2004). Pseudonyms that people use instead of their real names strengthen the dis-inhibition effect. While acting anonymous, users feel less vulnerable, since their behaviour can not be immediately linked to the real life (Suler, 2004). In that case, a kind of dissociation is taking place, because the online self becomes a compartmentalized self. According to Suler 'people might even convince themselves that those online behaviours “aren’t me at all.”' (2004).

Several studies support the fact that anonymity influences the behaviour on cyberspace (Hirsch et al, 2011). Rheingold completed a study about self-disclosure on the internet and resulted that 'the medium will, by its nature . . . be a place where people often end up

revealing themselves far more intimately than they would be inclined to do without the intermediation of screens and pseudonyms' (Rheingold, 1993). Kiesler et al. found that people showing higher flaming behaviour under the condition of dis-inhibition rather than face-to-face (1984). This assumption is supported by several other researchers (Spears et al, 2002; Douglas & McGarty, 2001).

Another research done by Barak and Gluck-Ofri (2007) found that feelings of anonymity lead to greater incidents of negative impressions. The original study of the effect of invisibility was conducted by Gergen, Gergen and Barton in 1973 by placing people in a completely dark room (1973). The outcomes were that anonymity induced a sense of being free from social norms and restrictions (Gergen, Gergen & Barton, 1973). In sum anonymity could predict an higher tendency to flame.

2.3. Purpose and relevance of this study

This study will investigate, from a psychological point of view, if group conformity is a predictor for flaming behaviour on social media platforms. To see if conformity is taking place, a manipulation of likes of flaming comments was designed to measure if respondents agree with the majority. Further, it was investigated if anonymity increases the flaming tendency by giving the respondents the order to fill in their name or a pseudonym. At last, it was examined, how respondents score on a self-report about flaming. Although a lot of other studies have been conducted to explain flaming behaviour, none was based on the concept of group conformity under the condition of anonymity. Given that flaming produces psychological discomfort, it is important to define causes and develop interventions. In this regard, following hypotheses have been formulated:

Hypothesis 1:

The higher the number of likes the higher the agreement with the specific commentator.

Group conformity is taking place.

Hypothesis 2:

Under the condition of anonymity the agreement and the tendency to flame is higher.

A higher effect of group conformity related to flaming behaviour or agreement exists, when

people are anonymous.

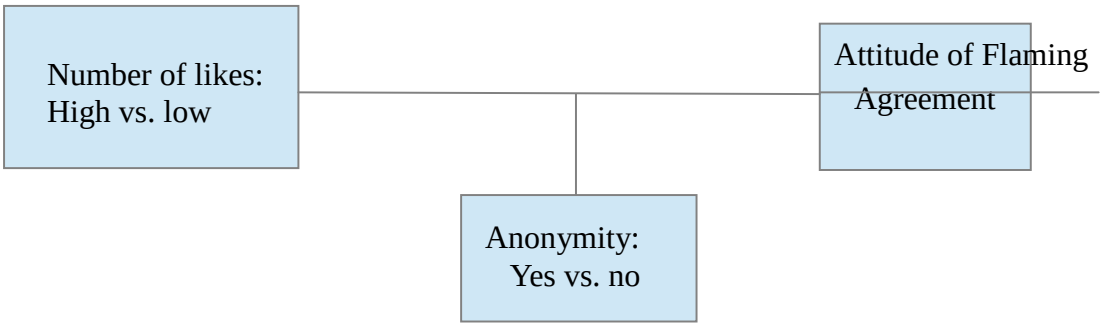

Figure 1) Overview of variables

3. METHOD

3.1. Participants & Design

In this study a 2 (*Anonymity*: yes vs. no) x 2 (*Number of likes*: high vs. low) mixed design plus a control group was carried out. *Anonymity* was a between-subject and *Number of Likes* a within-subject factor. A total number of 174 Facebook User participated, 92 respondents finished the questionnaire (dropout rate of ~ 53%). With a number of 61, the female participation was higher than the one of males (31). All participants were German speaking. For all four conditions the participants were randomly distributed with a total number of 75. After, a control group with 17 participants was conducted.

3.2. Procedure

To test the constructed hypotheses, an online study was conducted on qualtrics.com. The respondents were recruited via the platform Facebook and Sona Systems.

At first, participants got the link to the specific questionnaire. When they decided to participate, they were firstly thanked and got a precise briefing about the content of this research. Furthermore, they got the information that they could stop the questionnaire at any time without giving any reason.

In order to start the online study, they firstly had to agree with the previous information. After these formal requirements, general information such as age, gender and internet behaviour of the participants was asked. Under the condition of *Anonymity* - yes or no - they had to fill in a

pseudonym or their full name. In the second section, the *Agreement* of the participants with flaming comments was measured in order to predict if conformity is taking place or not. Participants had to judge via a 5-stage Likert-scale flaming comments whereby the *Number of Likes* was experimentally manipulated. The participants had to decide in how far they agree with comment 1 or comment 2. Further, they were asked if they found the comments annoying, acceptable or amusing. In the last part of the study, a self-report about flaming attitude was held in order to measure the people's tendency to flame. After the completion of the questionnaire, people were thanked again and they finally got information about the manipulations and the possibility in case of further inquiry to fill in their e-mail addresses.

3.3 Manipulations

3.3.1. Number of Likes

To predict conformity a manipulation of the *Number of Likes* of flaming comments was conducted. These manipulations represented the groups' opinion.

Four different pictures with each two flaming comments, whose *Number of Likes* had been manipulated, were shown one after another. These pictures showed real life situations on Facebook. 'Spiegel Online' regularly releases worldwide news on Facebook and people have the possibility to comment and like their publications and articles. Each of the four pictures was shown as Facebook-contribution, whereby the commentators were garbled.

Further, a counterbalancing design was used to prevent order effects. Thus, given that two versions of each picture exists (two for each publication), participants were randomly distributed over each picture. In one version the manipulated *Number of Likes* of the first commentator were higher than the *Number of Likes* of the second commentator (H-L) and in the other version vice versa (L-H). The intention was to measure, if respondents agreed more with the commentator with the higher *Number of Likes*.

Each picture comprised a short information text about political issues and two real life flaming comments, whose likes were manipulated. The first picture showed information about the German politician Albig and his opinion about pothole taxes (manipulation Number of Likes: high: 1.193 low: 19). The second picture showed information about Erdogan's election victory (manipulation Number of Likes: high: 3.200 low: 247), the third picture illustrated information about the family Goman – beguiler in Germany (manipulation Number of Likes:

high: 564 low: 14) and the last picture depicted the Ukraine conflict (manipulation Number of Likes: high: 365.000 low: 8.700). Figure 2 shows an example of a manipulated picture.

Figure 2) Example of manipulated Facebook article

3.3.2. Anonymity

To guarantee anonymity, the respondents had the order to give themselves a pseudonym. The participants of the non-anonymous condition had to fill in their first and last name.

3.4. Control group

In addition, a control group was established. The questionnaire consisted of the same segments like the other questionnaire, but in the second section the pictures were represented without the Facebook context and the manipulation of the *Number of Likes* were omitted. Furthermore, the control group had no option to fill in their name or a pseudonym.

3.5. Measurements

3.5.1. Demographic data

At first, the demographic data of each person was covered. Participants were asked about their gender and age. For the option of A*nonymity* they had to give themselves a pseudonym

and for the option of not anonymous, they had to state their whole name with first and last name. Further, participants were asked to fill in how often and how long they are on Facebook each day. This was considered in order to discover and asses their online behaviour. They could choose from an average rate >1,1-3, 4-6, 7-9 and >10 times per day, independent from the medium computer, mobile or tablet. Further they were asked about the average time they stay active on Facebook. They could choose from <10 minutes, 10-30 minutes, 30-60 minutes, 60-90 minutes and >90 minutes per day. From the study of Bak and Keßler it is known that people rather conform when they are intensive users of Facebook (2012). To prevent false declarations this fact was kept at the back of the mind.

3.5.2. Agreement

To consider if conformity was taking place, the agreement with each commentator with high or low *Number of Likes* per comment was measured. To analyse these findings, the scores were summed up and averaged to a total score of *Agreement* with high *Number of Likes* and low *Number of Likes*. Four items were developed which should measure the *Agreement* with each commentator. On the one hand, *Agreement* of the respondents was measured through the approval of the statement 'I agree with commentator 1 (2)' and, on the other hand, through the allegation what participants felt while reading the comments (amusement, huff or acceptance). A 5-stage Likert-scale was used to measure the items (1= I totally disagree, 5= I totally agree). The item depicted the content meaning of the Facebook-likes. Thus, the higher the score of approval the higher conformity was evaluated. Previous studies have approved the effect of manipulation of *Number of Likes* (Bak & Keßler, 2012; Egebark & Ekström, 2012). To analyse these findings, the scores were summed up and averaged to a total score of *Agreement* with high *Number of Likes* and low *Number of Likes*.

3.5.3. Flaming

In order to assess Flaming, participants were asked to fill in a closing questionnaire which asked for a self-report of flaming behaviour. This self-report was based on the Theory of Reasoned Action by Ajzen, Fishbein and Heilbroner (1975). The questionnaire included in total 30 items and the participants were asked to respond on a 5-point Likert scale (1= I totally disagree, 5= I totally agree). Items like 'Flaming is a norm for communication in cyberspace' or 'I flame regularly' were developed. The total score of the questionnaire was summed up

with a range of 1 (low flaming) to 5 (high flaming). An average score of 3 was defined as medium flaming.

3.6. Reliability

As a measurement of reliability Cronbach's alpha was calculated for the Flaming self-report and for the measurements of the *Agreement*. With an alpha score α=.94 the self-report was sufficient reliable. Since the constructs of measuring *Agreement* consisted of only four items the alpha scores were relatively low but sufficient with α=.67, α= 58, α=.53, α=.39, α=.65, α= 58, α=.54 and α=.62.

4. RESULTS

4.1. Demographic data

The average age of the respondents was 28, ranging from 16 to 58 years. In average, the participants were 2 to 3 hours online per day (M = 2.71, SD = 1.49). Thereof, the participants were 3 to 6 times per day on Facebook (M = 3.27, SD = 1.28) and their average usage time was 10 to 30 minutes per day (M = 2.16, SD = 1.22).

4.2. Agreement

A multivariate MANOVA was carried out with *Anonymity* as between-subject independent variable, and *Number of Likes* as within-subject independent variable, and the *Agreement* with the comments placed under the pictures dealing with four different messages (i.e., Albig, Erdogan, Goman, and Ukraine) as dependent variable.

The results show a non-significant main effect of *Anonymity* (F (4, 67) = 1.24 , p = .03) and a non-significant interaction effect between *Anonymity* and *Number of likes* (F (4, 67) = 0.66 ; p = .63). The main effect of *Number of Likes* proved to be only marginally significant (F (4, 67) = 2.34; p = .06). Univariate results show only a significant main effect of *Number of Likes* when the message was about Goman. *Agreement* was rated lower when *Number of Likes* was low (M = 3.24, SD = 0.68) compared to when it was high (M = 2.98; SD = 0.68; F (1, 70) = 7.11; p = .01). These results show that the manipulation of the *Number of Likes* does only marginally predict *Agreement*, and that *Anonymity* has no effect on *Agreement*. In other words, participants agreed marginal more with the commentator with the higher *Number of*

Likes irrespective of *Anonymity*.

4.3. Flaming

An univariate ANOVA of the effect of *Number of Likes* on the score of the self-report (conditions & control group) was not possible, since the differences between these groups were too large (75 vs. 17).

Given that the differences between the conditions were also too large, the univariate ANOVA of the effect on *Anonymity* on Flaming resulted in non-significant findings ($F(1, 73) = 0.44$; $p = .51$). To summarize, nor an effect of *Number of Likes*, nor of *Anonymity* on the tendency to flame could be confirmed.

DISCUSSION

This research aimed to investigate if group conformity predicts flaming behaviour and if anonymity might increase this effect. None of the hypotheses could be confirmed.

A marginal significance of Number of Likes on Agreement was detected. Nevertheless, the marginal p-value combined with the low Cronbach's alpha, obtained for this particular agreement rating, needs careful interpretation. Therefore, it can not be concluded that conformity was accomplished through the manipulation of Number of Likes. Furthermore, it can not be concluded that Anonymity increase the tendency to agree with flaming comments. Also, anonymity does not influence the tendency to flame. Regardless of the anonymity of the participants, they scored medium to low on the self-report of flaming. If the manipulation of the Number of Likes predicts flaming behaviour, could not be tested due to the large differences of number of participants in the condition and control group. Therefore, it is difficult to draw relevant conclusions about the effect of conformity on flaming behaviour.

To summarize these findings, group conformity developed only marginally wherefore it can not be confirmed that it predicted flaming behaviour, nor that anonymity increased the tendency to flame

Opposed to this research other studies confirmed a significant effect of manipulation of likes. For example Egebark and Ekström (2012) found that people usually give more likes to text based stimuli if these have already likes. In addition, Bak and Keßler (2012) found that conformity effects increased with a higher number of likes by stimuli. They also found that this effect is distinct from male intensive users of Facebook. The findings could explain why

the results of this research differ since the participation of women was considerably higher than the one of men in this study. On the other hand, the participants were not intensive users of Facebook. By a replication of this study these findings need therefore to be considered.

Moreover, the influence of anonymity on flaming behaviour could not be confirmed, although it is known from other studies that under the condition of anonymity greater incidents of negative impressions exists (Barak & Gluck-Ofri, 2007). The large differences between the group sizes of the condition anonymous and not anonymous might be an explanation why no effect of Anonymity on flaming behaviour in this research was found.

Another reason for that might be the methodology. Moor and colleagues (2010) found that people in their self-report said they do not flame, but their comments proofed to be different (Moor, Heuvelman & Verleur, 2010). Participants in this research had no possibility to write their own comment. A difference between how participants score on the self-report and the written comments might be possible. After finishing some participants said, that they did not notice the manipulated likes or they did not understand the term flaming, despite the preceding definition. Therefore, the likes need to be more apparent in a replication and the definition needs to be more coherent.

In spite of the non-significant results a replication of this study under the consideration of the listed improvements is meaningful, because this study is of essential importance, since there is still insufficient research done about the effect of social processes on Facebook. Conformity often takes place in public spaces so that also Facebook offers the potential of development. According to Moor and colleagues (2010), users would adapt to negative social norms in cyberspace to feel appropriate which supports the development of flaming behaviour. Based on the fact that flaming has negative effects, (O' Sullivan & Flanigan, 2003) it deserves more research of Facebook use and the consideration of social group effects.

Hence, a replication of this study should consider, amongst others factors, the social desirability and self-monitoring and self-perception to fathom the power of social processes in the social media. Facebook, as a social medium, is getting more and more popular in many areas of life wherefore it is ever more important to understand the social processes that are taking place in order to protect the people who suffer damage through this development.

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Appendix

Appendix A - Manipulations


BASE DE 12:43
SPIEGEL ONLINE
Erdogans islamisch-konservative Partei hat die Kommunalwahlen in der #Türkei für sich entschieden. Auch wenn er nicht selbst zur Wahl stand, hatte der Ministerpräsident die ersten Wahlen nach den #Gezi-Protesten zu einem Referendum über sich erklärt. Nach dem Sieg droht er seinen Kriti… Weiterlesen
Wahlsieg für Erdogan: "Ihr werdet bezahlen!"
spiegel.de
BASE DE 12:48
Beitrag
KOMMENTATOR 1
Ihr ahnungslose medienmanipulierte hirnlose schwätzer
vor 4 Stunden · Gefällt mir · 247
KOMMENTATOR 2
@ Kommentator 1 : Ob es uns passt oder nicht: Die Wahl Adolf Hitlers war wahrscheinlich die letzte wirklich demokratische in unserem Land...
4 Std · Gefällt mir · 3,2 Tsd.
Kommentar verfassen ...
Posten


BASE DE 12:49
SPIEGEL ONLINE
Sie betrügen Senioren um Zehntausende Euro, doch die Polizei ist oft machtlos. Die berüchtigte Leverkusener Großfamilie #Goman tritt seit Jahren wiederholt mit Betrugsdelikten in Erscheinung. Die komplexen Familienverflechtungen sind allerdings auch für erfahrene F… Weiterlesen
Betrügermafia: Die Geschäfte der Großfamilie Goman
spiegel.de
BASE DE 12:55
Beitrag
KOMMENTATOR 1
Da kann man keine Nettiquette mehr einhalten,schmeißt das Pack raus aus Deutschland....
Gestern · Gefällt mir · 14
KOMMENTATOR 2
Mit so einem Pack hat nur der normale Bürger ärger Die Politiker werden vor so einem Drecksvolk bestens und teuer geschützt
Gestern · Gefällt mir · 564
Kommentar verfassen ...
Posten

Appendix B - Self-report attitude flaming

1. I think flaming is annoying
2. When I see flaming behaviour on Facebook, I find it amusing
3. I think flaming is usually meant to be funny
4. I think flaming is a norm for communicating in the digital world
5. I think flaming is just an honest way of expressing disagreement
6. In my opinion people flame because they just have to pass time when they are bored
7. I think flaming has no dramatical consequences for the flamer himself
8. I think flaming has no dramatical consequences for the victim who gets flamed
9. I think it is the victim's own fault for getting flamed
10. I think flaming is under certain conditions acceptable
11. I think it is important what other people think off me
12. I want that the other people have a good picture of me
13. I feel pressure to flame myself when others show flaming behavior
14. People who are important to me think that flaming is acceptable
15. My reputation by other members increases when they see me flaming
16. I am very pleased when I got likes/comments for my activities on Facebook
17. People expect that I comment or like their status on Facebook
18. People expect that I like their flame behaviors
19. I am very pleased when I got likes/comments for my flaming behavior
20. People expect that I show my disagreement
21. I intend to flame
22. I intend to flame when I disagree with other people's opinion
23. I intend to flame when I am bored
24. I intend to flame when others also flame
25. I intend to flame to amuse myself
26. I have already flamed in the past

27. I flame regularly
28. I will probably flame in the future
29. I will flame under the condition that other people flame as well
30. I will flame if I do not agree with other people's opinion