Bachelor Thesis:

Flaming motivation in YouTube users as a function of the traits Disinhibition seeking, Assertiveness and Anxiety?

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Abstract

The phenomenon flaming has received a lot of interest in the last decades. However, most research on flaming focused on situational factors as explanation for flaming in computer mediated communication. Since no other study ever investigated the role traits play in flaming motivations in YouTube users, a survey was conducted among 51 YouTube flamers to find out whether the personality traits Sensation seeking, Assertiveness and Anxiety can predict the flaming motivations Escape, Pass time, Relaxation and Entertainment.

The results of several regression analyses show that most of the traits were not significantly or positively related with the flaming motives. There was however, a statistical tendency found for Disinhibition seeking and flaming for entertainment, which indicates that Disinhibition might be a predictor of flaming for entertainment. So future studies might investigate this relationship further by conducting experiments in which actual flaming behavior can be measured. However, the results of the study suggest that other factors than traits are responsible for flaming on YouTube. Thus it seems that flaming is rather due to the lack of social cues, the prevalence of a flaming norm, or the different social, religious and political backgrounds that YouTube flamers have.

Abstract

Het fenomeen flaming heeft er gedurende de laatste decennia veel aandacht getrokken. Echter hebben de meeste onderzoekers hun aandacht gericht op situationele factoren als verklaring voor flaming in *computer mediated communication*. Om de reden dat er dus nog geen onderzoek gedaan is naar de rol die persoonlijkheidstrekken spelen bij de flaming motivaties in YouTube gebruikers, werd er een survey gedaan met YouTube flamers om te onderzoeken of de karaktertrekken *Sensation-seeking, Assertiveness* en *Anxiety* de flaming motivaties *Escape, Pass time, Relaxation* en *Entertainment* kunnen voorspellen. Uit de resultaten van meerdere regressieanalyses blijkt, dat de meeste karaktertrekken geen significante en positieve relatie toonden met de flaming motivaties. Er was echter een tendens gevonden voor Disinhibition seeking en *flaming for entertainment* hetgeen impliceert dat deze karaktertrek mogelijkerwijs een voorspeller is van dit motief. Dus zouden toekomstige onderzoeken deze relatie door middel van experimenten kunnen onderzoeken. Over het algemeen wijzen de resultaten van dit onderzoek er echter op dat karaktertrekken geen grote rol spelen bij het flamen, het lijkt dus dat flaming op YouTube eerder veroorzaakt wordt door de afwezigheid van *sociale cues* op YouTube, de prevalentie van een *flaming norm*, of de verschillende sociale, religieuze en politieke achtergronden van de YouTube flamers.

1. Introduction

The phenomenon flaming has received a lot of interest during the last four decades. The term flaming has been defined differently during the time. In early research, flaming included all types of emotional expressions, while more recent research only refers to offensive language such as swearing and insults (Moor, Heuvelman & Verleur, 2010). Thus, Siegel, Dubrovsky, Kiesler & McGuire (1986) defined flaming as "the expression of strong and inflammatory opinions" (p. 161) and for Steele, Woods, Finkel, Crispin, Stallman & Goodfellow (1983) flaming was "to speak rabidly or incessantly on an uninteresting topic or with a patently ridiculous attitude" (p.158). According to Kayani (1998) however, flaming can be defined "an expression of hostile emotions directed at another person, as opposed to criticism that is directed at ideas and opinions" (p.1137). Also Moor et al. (2010) defined flaming as "displaying hostility by insulting, swearing or using otherwise offensive language" (p. 1536). This study focuses on flaming in this sense.

1.1 Flaming in computer mediated communication

Many studies have shown that flaming occurs more frequently in computer mediated communication which includes emails, computer conferencing, electronic blackboards, computerized bulletins, data transference systems, group decision support systems, etc. (Andriessen, 1991; Roe, 1994), than in face to face communication. For example, Kiesler, Zubrow, Moses & Geller (1985) found that people who communicated by computer evaluated each other less favorably than did people who communicated face-to-face, they felt and acted as though the setting was more impersonal, and their behavior was more uninhibited. Furthermore, Orenga, Zornoza, Prieto & Peiró, (2000) found that flaming and informal speech occurred more often in computer-mediated communication than in videoconference and face-to-face. Additionally, Siegel et al. (1986) carried out a set of experiments and the results showed that uninhibited behavior appeared more frequently when groups communicated via computer instead of face to face. Siegel et al. (1986) further found that anonymous conditions and simultaneous communication increased the frequency of uninhibited behavior.

1.2 Explanations of flaming in computer mediated communication:

Reduced cue explanation

Flaming in computer mediated communication is often regarded as the result of the negative online Disinhibition effect. This means that the online environment is expected to decrease behavioral inhibitions and thereby is thought to lead to inhibited behaviors like flaming. An example of a typical flame in the in computer mediated communication is " This sucks, go die". Flaming is mostly seen as resulting from the lack of social cues in computer environments (Collins, 1992). This approach which has been called "cues filtered out " (Culnan & Markus, 1987), suggests that the lack of nonverbal social cues makes CMC difficult and thereby leads to flaming in computer mediated communication. Thus, according to this approach, the characteristics of the computer medium are responsible for flaming in computer mediated communication. For example, Lapidot-Lefler & Barak (2012) studied 3 typical online communication factors on inducing the negative online disinhibition effect: Anonymity, invisibility and lack of eye contact. The results of their experiment showed that lack of eye contact made participants feel less exposed and more anonymous and thus more engaged in flaming.

Deindividuation Theory

Based on the cues filtered out explanation, early research focused on deindividuation as explanation for flaming. According to Diener (1977) deindividuation or submergence in a group-, occurs when there is a reduction in self-awareness because of situational characteristics such as anonymity, altered responsibility and sensory input overload. This is expected to lead to impulsive and assertive behavior (Moor et al., 2010). Adapted to computer mediated communication, the deindividuation theory states that because of the lack of personal cues in computer mediated communication, people´s self-awareness and awareness of others is reduced**,** which eventually leads to flaming (Kiesler, Siegel & McGuire, 1984).

Social identity model of Deindividuation effects

An alternative explanation of flaming is offered by the social identity model of deindividuation effects (SIDE model) of Reicher, Spears & Postmes (1995). According to this model, people in a deindividuated situation do not experience a reduction of self-awareness, rather their personal identity is replaced by a social identity, which is called depersonalization (Turner, as cited in Moor 2007). Two consequences of this process are a possible confirmation to perceived group norms and higher attraction of fellow group members (Moor, 2007). In a review of 60 studies, Postmes & Spears (1998) found that the SIDE model was a better predictor of CMC behavior than the deindividuation theory. This suggests that flaming might be due to a flaming norm and therefore is no impulsive and uninhibited behavior (Moor, 2007).

Further critique on the former approaches which claim that the characteristics of CMC promote flaming comes from Lea, O´Shea, Fung & Spears (1992) who state that those approaches have decontextualized flaming. According to Lea et al. (1992) flaming behavior is social context dependent. This social context is thought to be communicated via the medium. Flaming is then thought to depend on social category cues which, by referring directly to the communicator's membership in specific social groupings, make the relevant norms salient for the specific context (Orenga et al., 2000). Additionally, Kayani, (1998) studied the effects of social context in which flaming occurs, i.e. the social, religious and political background and affiliations, and found that flaming occurrence was dependent on the subculture, suggesting that the social context and not the medium is the primary determinant of online uninhibited behavior.

In conclusion, most studies focused on characteristics of the medium, thus reduced social cues in computer mediated communication, whereas some studies also focused on the social context and a conformation to a perceived flaming norm. However, there has been little research on the role individual characteristics play in flaming. Therefore, this study deals with this possible cause of flaming. More specifically, the current study is inspired by Alonzo & Aiken (2004) who found that certain traits can lead to flaming. That is why their study will be reviewed first.

1.3 The uses and gratifications theory (UGT)

Alonzo & Aiken (2004) investigated people´s flaming motivations in electronic communication with the help of the UGT. According to the UGT, people use different media types to satisfy their needs. The UGT presupposes that people are goal driven and active media users who are aware of their needs and select media to gratify these needs (Katz, Blumler & Gurevitch, 1974; Blumer, 1979). Although the UGT has first been applied to the mass media radio and television, UGT could also be successfully applied to study the uses and gratifications people seek in the Internet (Eighmey, McCord, 1998; Newhagen & Rafaeli, 1996). More specifically, the uses and gratifications literature indicates that ”a primary use of computer-mediated forms of communication involves entertainment and exploration” (Eighmey & McCord, 1998, p. 189). The motive entertainment will also be of relevance in one of the motivations for flaming in computer-mediated communication, namely the need for stimulation. The motivations for flaming in computer mediated communication will be explained in the following section.

1.4 McGuire's psychological theories of human motivation:

More specifically, Alonzo & Aiken (2004) investigated the role of personality traits in flaming motivation because these were expected to influence people´s needs which in turn is thought to decide the gratifications people seek. To examine flaming motives, they chose four of McGuire´s (1974) psychological theories of human motivation which originally explained television-viewing motives (Conway & Rubin 1991). These theories described the needs for stimulation, assertion, tension reduction and expression. These motivations were linked to the four personality traits of sensation seeking, assertiveness, anxiety and creativity respectively because these traits were thought to represent the particular needs. The relations between the traits and flaming motives are presented in figure 1 (which illustrates Alonzo´s & Aiken´s (2004) conceptual model.)

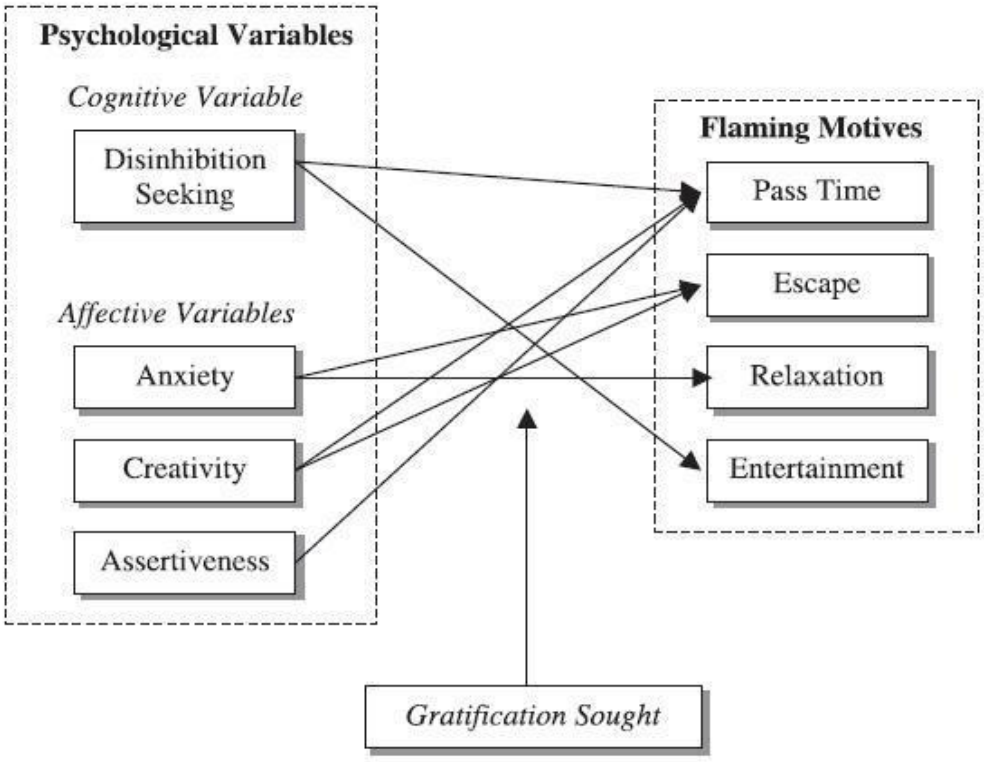

Fig. 1. Conceptual model of flaming motives. Reprinted from "Flaming in electronic communication" by M. Alonzo and M. Aiken, 2004. *Decision Support Systems, 36(*3*)*, p.207. Copyright 2004 by Elsevier Science B.V.

McGuire's stimulation theory

This theory, which is a cognitive paradigm, states that an individual's need for stimulation is grounded in the fact that people want to escape from the aversive state of boredom (Alonzo & Aiken, 2004). Therefore it was assumed that people who score high on sensation seeking which can be defined by the need for ''novel, varied, complex and intense sensations and experiences and the willingness to take risks for such experience'' (Zuckerman, as cited in Alonzo and Aiken, 2004) are willing to take risks and thus engage in flaming for pass time and for entertainment. Sensation-seeking consists of the four domains thrill-seeking, experience seeking, Disinhibition, and boredom. From those domains, Disinhibition was selected as most relevant to flaming in electronic communication because it is thought to

occur when social constraints break down, and communication is anonymous (Alonzo & Aiken, 2004).

McGuire´s assertion theory

This theory, which is an affective paradigm, suggests that people want to have control, dominance and power over others (Alonzo & Aiken, 2004). Therefore it was expected that people who score high on assertiveness would flame for pass time which would them allow expressing their opinions, beliefs and attitudes.

McGuire´s tension-reduction theory

This theory, which is like the assertion theory an affective paradigm, states that people want to maintain stability and therefore seek to reduce arousal and negative tension (Alonzo & Aiken, 2004). Because anxiety is a form of stress, the hypothesis was tested whether people who score high on anxiety would flame for escape or for relaxation.

McGuire´s expression theory

This theory, which is also an affective paradigm states that people seek gratification by self-expression and acting out feelings (Alonzo & Aiken, 2004). It was tested whether flaming in computer mediated communication might be a form of negative self-expression. Therefore the authors hypothesized that people who score high on creativity would flame to pass time and for escape.

1.5 Methodology

In Alonzo´s & Aiken´s (2004) study, participants had to generate comments anonymously in parallel with a group support system (GSS) in order to investigate flaming behavior afterwards and then, the above mentioned traits and the flaming motivations were measured. The trait Sensation seeking was measured with the Disinhibition Sensation-Seeking Scale, Anxiety was measured using the State-Trait Anxiety Inventory, Creativity was measured with the Reflections of Self and Environment (ROSE) Scale and the trait Assertiveness was measured with the Rathus Assertive Schedule.

Flaming motives were measured with self-assessed, 5-point Likert scales, for which statements about reasons for watching television were reworded. Additionally to that, user satisfaction with the GSS was measured and user comments were recorded automatically.

1.6 Results and its implications for the current study

The results of Alonzo´s & Aiken´ study showed that people who scored high on sensation seeking would flame for pass time and for entertainment. Furthermore the hypothesis regarding Assertiveness was confirmed, thus the results showed that high levels of Assertiveness were indeed associated with flaming for pass time. The hypothesis regarding tension reduction was confirmed as well, thus a high level of anxiety could predict flaming for escape and relaxation. However, the hypothesis regarding expression and creativity was not confirmed. That is why this study only focused on sensation-seeking, assertiveness and anxiety as predictors of flaming motivations. Furthermore results showed that males flamed more often than females, which is consistent with the results of past research of Aiken & Waller (2000). So, in this study it was investigated whether men flame more than women.

However, the procedure used in this study was a little different than that of Alonzo & Aiken (2004) where an experiment was conducted in order to investigate flaming behavior before the traits and motives where measured. In this research, participants were chosen when they had flamed on a website instead, and then the previously mentioned traits and flaming motivations were assessed through an online survey.

1.7 Flaming on YouTube: A prevalent problem

As already mentioned, flaming happens often in computer mediated communication.
More specifically, flaming is very prevalent on the video sharing website YouTube. YouTube has become the most successful internet side during the last seven years by providing a new generation of short video sharing service (Cheng, Dale & Liu, 2007). It is evident that almost every video on YouTube has flaming comments. Also Moor et al. (2010) who examined flaming behaviors and its causes on YouTube found that flaming is common on YouTube and perceived regularly. Also Lange (2007) found in her qualitative study that hate videos are common on YouTube and that hating is a problem for many YouTube participants. This high prevalence of flaming on YouTube might be explainable with the reduced cue

explanation. Thus, on YouTube there is a lack of social cues such as facial expression, physical size or tone of voice which, as already mentioned, might lead to deindividuation and thus to flaming. More specifically, it seems that the situation specific factors anonymity, invisibility and lack of eye-contact play a role in flaming on YouTube since they are three typical factors thought to cause the negative online Disinhibition effect (Lapidot-Lefler & Barak , 2012). The concept anonymity incorporates an unidentifiability aspect which refers to "the realistic condition of being unknown to online partners in terms of identifying personal details, such as gender, weight, age, occupation, ethnic origin, residential location and so on" (Lapidot-Lefler & Barak , 2012, p.435). Since on YouTube these conditions are met, thus all personal details can be hidden on this website, it seems that YouTube is a fairly anonymous medium. Additionally to that, people on YouTube are invisible to each other and do not have any eye-contact. Thus it seems that the characteristics of YouTube facilitate flaming. Moreover, the deindividuation experienced on YouTube, might lead to depersonalization which, as already mentioned might result in a possible confirmation to perceived group norms. This suggests that flaming on YouTube also might be due to a perceived flaming norm.

Furthermore, the social context, such as social, religious and political background and affiliations might foster flaming on YouTube because YouTube is an international side which allows people with different social, religious and political background to view and comment to the same videos. Thus, if there is a video showing nudity, people from a Muslim country might react negatively towards the content and might therefore post flames.

Thus, altogether, there are a lot of pre-conditions which might facilitate flaming on YouTube. Therefore, YouTube provides a good platform to study the reasons for flaming.

1.8 Purpose and relevance of the present study

Since traits have been shown to be successful predictors of flaming motivations (Alonzo & Aiken, 2004) and no other study has ever investigated the role traits play in flaming motivations in YouTube users, the purpose of this study is to find out whether flaming motives in YouTube users can be attributed to the personality traits sensation seeking, assertiveness and anxiety. In this regard the following hypotheses have been formulated:

Hypothesis 1:

a: A higher level of Disinhibition seeking is significantly and positively associated with flaming for pass time in YouTube users

b: A higher level of Disinhibition seeking is significantly and positively associated with flaming for entertainment in YouTube users

Hypothesis 2:

a: A higher level of assertiveness is significantly and positively associated with flaming for pass time in YouTube users

Hypothesis 3:

a: A higher level of anxiety is significantly and positively associated with flaming for escape.

b: A higher level of anxiety is significantly and positively associated with flaming for relaxation.

Furthermore, this study is of relevance because it can provide further theoretical knowledge in the causes of flaming. Thus, if this study provides evidence that those traits are responsible for flaming behaviors, this might change implications, since many theorists made the characteristics of computer mediated communication responsible for flaming and therefore searched for solutions that regarded the medium itself. There have even been launched laws by some states of the USA that sought to restrict online anonymity (Mendels, 1999). So, if this study finds evidence that it is not the media characteristics of CMC which lead to flaming, but personal traits, solutions like that can be forgotten. In addition to that, this discovery might improve the image of this form of communication in the eyes of the public and the researchers.

2. Method

2.1 Participants

Fifty-one YouTube users participated in this study. From these participants 10 were female and 41 were male.

2.2 Procedure

With the help of the YouTube randomizer (http://youtuberandomvideo.com/) different videos were chosen (at random) in order to obtain a random sample from all existing YouTube videos and its users. However, the videos were only chosen if the comments on the video were in English, Dutch or German. The senders of the most recent flames were selected for every video apart. Then, all people who fulfilled these requirements received an invitation on YouTube to participate in a study on flaming. More precisely, 740 messages were sent during a four weeks period. The subject line of each message was called `Flaming on YouTube`. In the invitation, the topic of the questionnaire was shortly explained so that respondents would know what the study was about, furthermore it was indicated how long the survey would approximately take and finally, it was also made clear that the results would be kept confidential and anonymous. This invitation can be found in the appendix section, table 1. Each message contained the URL of the questionnaire.

2.3 Questionnaire:

The whole questionnaire consisted of 8 pages. On the first page, a definition of the term flaming was provided (see appendix section, for entire questionnaire) so that participants would understand what flaming really means. Then, participants were asked whether they had ever flamed and how often they did. Thereafter, flaming motives were measured and lastly, the 3 traits were assessed. In total, the questionnaire consisted of 65 questions. After submitting the survey, the participants were thanked for their participation and they were asked whether they would like to receive the results of the study and if they would like to participate in further studies.

2.3.1 Dependent Variables

Flaming motives were measured using self-assessed, 5-point Likert scales ranging from strongly agree to strongly disagree. The questions for measuring the motives entertainment and pass time were based on Hanson´s and Haridaiki´s (2008) questions measuring YouTube user's motives for watching and sharing different types of news-related content. These questions were thus reworded for the flaming context.

Questions for the motives relaxation and escape were based on Weaver´s (2000) questions about television viewing motives, which were reworded for flaming as well. Since there were not enough questions available in this study for measuring the escape and relaxation motives, additional questions had to be created. All 18 questions were randomized using RANDOM.ORG.

2.3.2 Independent Variables:

Sensation seeking

Sensation seeking was measured using the Sensation-Seeking Scale from Zuckerman (1979) Form V which consists of 40 questions and contains a two choice format. The SSS-V is a widely used measure which has been applied to study diverse behaviors (Gray & Wilson, 2007). According to Trimpop, Kerr & Kirkcaldy (1999) it is even regarded as one of the most widely recognized measures of risk-taking behavior. Moreover, the reliability and validity of this measure have been verified by the many hundred studies done over the years (Zuckerman, as cited in Zuckerman, 2007).

The SSS-V measures the four domains Boredom Susceptibility, Disinhibition, Experience seeking and Thrill and Adventure seeking. However, as suggested by Alonzo and Aiken (2004) Disinhibition is of particular relevance for flaming in electronic communication, and therefore the only domain measured in this study. Since there are 10 questions for every domain, and for every question one can get maximal 1 point (for high sensation seeking behavior), the maximum score for the domain Disinhibition is 10. The questions are scored as follows: 0-2 scores indicate very low Disinhibition seeking, 3-4 scores stand for a low degree, 5-6 signal an average degree, 7-8 a high degree, and finally, 9-10 scores imply a very high degree of Disinhibition seeking.

Assertiveness

Assertiveness was measured with the Simple Rathus Assertiveness Scale–Short Form (SRAS-SF) developed by Jenerette & Dixon (2010) which is a shorter version of the Simple Rathus Assertiveness Schedule (SRAS) published by McCormick (1984). The SRAS in turn is a modified version of the original Rathus Assertiveness Schedule (RAS) (Rathus,1973), which requires a much lower reading level than its forerunner (McCormick, as cited in Lumley, 2001).

However, in contrast to the RAS and the SRAS, the SRAS-SF consists of only 19 instead of 30 items and has been found "to reduce the respondent burden while maintaining an adequate reliability, and simultaneously maintaining a near-perfect relationship with the longer scale" (Jenerette & Dixon, 2010, p.322). The SRAS-SF consists of a 6 point likert scale ranging from 1 (very unlike me) to 6 (very much like me).

Notably, there are no specific guidelines for the RAS about what counts as assertive or unassertive (Lumley, 2001). The differentiation between high and low assertiveness is done by means of the maximum and the minimum score. The total scores for the SRAS were obtained by adding the numerical responses to each item, with 30 as the minimum score and 180 as the maximum score indicating the highest level of assertiveness (Jenerette & Dixon, 2010). So, in order to obtain the maximum score for the SRAS-SF, the numerical responses (1-6) to each item are added, which results in a maximum score of 114 (high assertiveness) and the minimum score of 19 (low assertiveness).

Anxiety

It was not possible to measure Anxiety with the State-Trait Anxiety Inventory that Alonzo and Aiken used in their study because this questionnaire was not available without a charge. So instead of measuring Anxiety, Worry was measured in this study because it is comparable to Anxiety, since Generalized Anxiety Disorder (GAD) is mainly defined by chronic Worry (DSM-III-R, APA, as cited in Meyer, 1990**).** Worry was measured using the Penn State Worry Questionnaire (PSWQ) which was developed by Meyer in 1990. Furthermore, the PSWQ has been shown to have a good correlation with the STAI-Trait (r= 0.64) but a weaker correlation with STAI-State (r=0,49). The reason therefore seems to be that the PSWQ is a general trait measure which will therefore show a better correlation with the trait than with the

state measure (Meyer, 1990). Overall, the PSWQ has been found to possess high internal consistency and good test-retest reliability (Meyer, 1990). This questionnaire consists of 16 items and a 5 point Likert scale format ranging from 1 (not at all typical of me) to 5 (very typical of me). The total scores range from 16 to 80 with 16-39 scores indicating low worry, 40-59 indicating moderate worry and 60-80 scores implying high worry.

2.4 Data analysis

The data-analysis was done with SPSS 20. First, a reliability analysis of the flaming motives was conducted to see whether the Cronbach´s alpha of the subscales was above the threshold of 0,70 and if the inter-item correlations were above 0,20. Furthermore, descriptives were calculated. Then, several regression analyses were performed to see whether the relevant traits could explain the variance of the particular flaming motivations.

3. Results

3.1 Pre-analysis

The results of the reliability analyses of the subscales show that all subscales had a good till excellent reliability. Thus, the subscales Relaxation and Pass time show good alphas of 0,819 and 0,898 and the subscales Entertainment and Escape had excellent alphas of 0,939 and 0,902. Furthermore, the inter-item correlations in the particular subscales were all above 0,20 ranging from 0,319 till 0,932. Therefore, no items had to be deleted.

Table 1 summarizes the number of males and females and their past flaming behavior.

Table 1. Frequencies of gender and past flaming

Variables		Gender		
		Female	Male	Total
Flamed in the past	Never	3	6	9
	Few times	7	24	31
	Regular basis	0	11	11
Total		10	41	51

As can be seen in this table, there were more males than females participating in this study. From the female participants 30% stated that they had never flamed, 70% stated that they had flamed a few times and no woman stated that she flamed on a regular basis. From the male participants 15% stated that they had never flamed, 58% stated that they had flamed a few times and even 27% admitted that they flamed on a regular basis.

In table 2 the means, standard deviations, maximum and minimum scores of the traits and flaming motives are summarized.

Table2. Means, standard deviations, maximum and minimum scores of the independent variables and the flaming motives

Variables	Mean	S.D.	Min score	Max score
Independent variables:				
Disinhibition seeking	4,82	2,86	0	10
Assertiveness	65,27	14,32	19	114
Worry	43,0	19,06	16	80
Flaming motives:				
Entertainment	13,65	6,97	5	25
Pass time	9,75	5,29	4	20
Relaxation	8,80	4,34	4	20
Escape	11,02	5,93	5	25

The mean of Disinhibition can be rounded off to 5 which according to the norm group indicates an average degree of Disinhibition seeking. The mean of assertiveness is 65, this falls according to the norm group into a high degree of assertiveness. Thus, on an average the participants scored relatively high on this trait. The mean score of Worry is 43, which falls according to the scoring norms into a moderate degree. Thus, on an average, participants scored moderately high on Worry.

3.2 Regression analyses:

Several regression analysis were conducted to test the hypotheses, thus to examine whether the traits could predict the specific flaming motivations. Each hypothesis was tested with a different regression analysis, so in total 5 regression analyses were performed. The particular motive was entered as the dependent variable and the relevant trait was of course added as the independent variable.

Flaming for pass time

As can be seen from table 3, Disinhibition seeking accounted for only 2,6% of the variance in the flaming model. No evidence is found for hypothesis 1a, that a higher level of Disinhibition seeking is significantly and positively related to flaming for pass time. So this hypothesis is rejected. Additionally, it was tested whether a higher level of Assertiveness is significantly and positively related with flaming for pass time. As can be seen in table 3 however, Assertiveness explains only 0,7% of the variance of the model and is not significantly and positively related with flaming for pass time. Therefore, also hypothesis 1b is rejected.

Table 3. Beta coefficients, R Square and significance level of Disinhibition-seeking, Assertiveness and Pass time

	Dependent variable: Pass time		
	Adj. R	ß	p
Predictors:			
Disinhibition seeking	0 ,026	0,162	0,256
Assertiveness	0,007	0,085	0,554

Flaming for entertainment

As can be seen in table 4, Disinhibition accounted for only 5,6% of the variance of the entertainment motive. Furthermore, Disinhibition was not significantly associated with flaming for entertainment, but there was a statistical tendency suggesting that Disinhibition seeking might be a predictor of flaming for entertainment.

Table 4. Beta coefficients, R Square and significance level of Disinhibition-seeking and flaming for entertainment

	Dependent variable: Entertainment		
	Adj. R	ß	p
Predictor:			
Disinhibition seeking	0,056	0,238	0,093(*)

Flaming for escape

The psychological variable Worry accounted for only 0,6% of the variance in the escape motive. There was found no evidence for hypothesis 3a which predicts that a higher level of Worry was significantly and positively associated with flaming for escape.

Table 5. Beta coefficients, R Square and significance level of Worry and flaming for escape

	Dependent variable: Escape		
	Adj. R	ß	p
Predictor:			
Worry	0,006	0,076	0,597

Flaming for relaxation

The psychological variable Worry could account for only 4,9% of the variance of the relaxation motive. Furthermore, table 7 shows no evidence for hypothesis 3b which suggested that a higher level of Worry would be significantly and positively associated with flaming for relaxation. That is why also the last hypothesis is rejected.

Table 6. Beta coefficients, R Square and significance level of Worry and flaming for relaxation

	Dependent variable: Relaxation		
	Adj. R	ß	p
Predictor:			
Worry	0,049	0,221	0,120

4. Discussion

The purpose of this study was to find out whether flaming motives in YouTube users can be attributed to the personality traits sensation seeking, assertiveness and anxiety. However, results show that most of these traits are not significantly or positively related with the flaming motives. Thus, Disinhibition seeking and Assertiveness could not predict flaming for pass time, nor could Worry predict flaming for relaxation or flaming for escape. However, a statistical tendency was found for Disinhibition seeking and flaming for entertainment, which suggests that Disinhibition might be a predictor of flaming for entertainment. This is in contrast with the results of Alonzo´s & Aiken´s (2004) study, in which all of these traits could predict the particular flaming motivations. In the following section, the limitations of the study will be taken into account, then future recommendations will be made and finally, a conclusion will be drawn.

4.1 Limitations and recommendations

One limitation of the current study concerns the respondents. The fact that only 51 YouTube users completed the questionnaire, which results in a response rate of only 6,9% might have influenced the accuracy of the results since many researchers stated that higher response rates assure more accurate survey results (Babbie 1990; Backstrom & Hursh 1963; Rea & Parker 1997). On the other hand, Visser, Krosnick, Marquette and Curtin (1996) have even found that surveys with low response rates around 20%, yielded more accurate measurements than did surveys with higher response rates around 60 or 70%. Moreover, the results of a study on the impact of low response rates conducted by Holbrook, Krosnick and Pfent (2007) have shown that surveys with much lower response rates were only minimally less accurate. This in turn, suggests that the low response rate did not affect the quality of the results in this research.

However, the reasons for the low response rate should be assessed anyway. One obstacle for filling in the questions might have been the length of the questionnaire with its 72 items, although attempts have been made to reduce the length by using shorter versions of the questionnaires. Another obstacle might have been the fact that participants received nothing for their participation. An evidence therefore comes from the feedback of four persons who responded by asking what they would get for their participation. A theoretical basis for this assumption is provided by Vroom´s (1964) expectancy hypothesis which states that people are rational decision makers who analyze the benefits and costs of their actions. According to this theory, workers become motivated when their effort will result in improved performance, their performance will be recognized and rewarded, and the monetary and symbolic rewards offered are valuable. The first condition seems to be fulfilled since the relevance of the contribution in this research was made clear in the invitation letter. Thus, it seems that in the future, participant's motivation to participate can be increased by rewarding their performance with a valuable reward. This might be accomplished by offering a small monetary reward like 5$ or credit notes for a download store.

Regarding the gender of the respondents, it has to be mentioned that general flaming motivation might have even been less, if more women would have participated in the study, since this study found further evidence for the hypothesis that women flame less than men. The first indication is that from the 740 flamers selected, only around 8% were female. Furthermore, in this study it was found that from the female participants 30% stated that they

had never flamed, whereas from the male participants only 15 % stated that they had never flamed and most notably, no women stated that she flames on a regular basis, whereas from the male participants, even 27% stated that they flame on a regular basis. So it seems that overall, females flame less intensively than males.

With regard to the questionnaire**,** it might have been better to use the State-Trait Anxiety Inventory that Alonzo and Aiken used instead of the PSWQ because the PSWQ only measures one domain of Anxiety, namely the general trait domain and not the state domain (Meyer, Miller, Metzger, & Borkovec, 1990). Thus, if the STAI would have been used maybe people would have scored even higher on Anxiety than they did on Worry, because then also the state domain would have been included.

Since the results of this survey show a tendency for one trait and one flaming motivation, future studies on flaming in CMC or especially on YouTube-, could investigate this relationship further by conducting experiments in which flaming motivations are measured in direct relation with past flaming behavior. For example, participants could be presented with a problematic task like the one in Lapidot-Lefler´s and Barak´s (2012) experiment were flaming behavior was elicited by presenting students with a stressful ” life saving drug dilemma” which had to be discussed and solved with a random partner through an online chat.
After presenting respondents with a problematic task, participants could be asked what motivations underlay their flaming behavior and then traits could be measured, to investigate whether or not traits could predict these motivations. However, conducting an experiment is expensive and time-consuming. If it is desirable to reach YouTube users it could be instead of inviting flamers on YouTube for an experiment, conducted a survey which asks YouTube flamers directly for the motives for their specific flaming comment and then measures flaming motivations and the traits.

Nevertheless, since the current study has not found any significant evidence for traits as predictors of flaming motivations, the results of this study (which has been shown to possess reliability), indicate that traits are no good predictors of flaming behavior on YouTube, or more general in CMC. Therefore, it is expected that further research on flaming motivations and traits will not yield evidence for traits as predictors of flaming motivations. The results of the study thus suggest that other factors are more important than traits. Further evidence for this implication comes from the fact that there is less flaming in face to face

communication than in computer mediated communication. Thus, it seems very likely that the characteristics of computer mediated communication are responsible for the fact flaming occurs more often in this kind of communication than in face to face communication. These characteristics are the factors mentioned in the introduction section. The first factor is the lack of social cues on YouTube. Thus, it seems reasonable that flaming can mainly be attributed to a high degree of anonymity, invisibility and the lack of eye-contact, because these factors are overly present on YouTube. Furthermore, flaming might also be attributable to a perceived norm, thus maybe people flame because they think it is normal on YouTube. And lastly, flaming on YouTube might also be due to the social context, such as the different social, religious and political backgrounds that YouTube flamers have, which are likely to collide on an international website. Altogether, it seems that one of these or these three factors together, determine flaming behavior on YouTube and character traits do not play a significant role.

4.2 Conclusion

This study attempted to show how three character traits predict flaming motivations on a platform where it has never been studied before, namely on YouTube. Results show that the hypotheses regarding the traits could not be verified, although a tendency has been found for Disinhibition seeking as predictor of flaming for entertainment. So it has been concluded that the characteristics of the computer medium like the lack of social cues, the prevalence of a flaming norm, or the different backgrounds of the YouTube flamers determine flaming behavior, and that character traits do not play a significant role.

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Appendix

Table 1: Invitation to participate in the study

YouTube Survey

Dear respondent,

In an effort to complete my bachelor degree I am conducting a research study with YouTube users on hating comments on YouTube. Your input can help to increase knowledge about this so called flaming on YouTube. We estimate that it will take you approximately 15 minutes to complete the survey.

Simply click on the link below, or cut and paste the entire URL into your browser to access the survey:

http://www.studentenforschung.de/web/?id=295715

We would appreciate your response by *November 10th, 2012*

Your input is very important to us and will be kept strictly confidential (used only for the purposes of research for this project) and anonymous.

If you have any questions please email me at:

l.jonson@student.utwente.nl

Thank you in advance!

Sincerely,

Lena Jonson

Student at Universitiy of Twente

Drienerlolaan 5

7522 NB Enschede, The Netherlands

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The questionnaire:

Flaming on YouTube

This survey is about flaming on YouTube. Flames are hating comments which are unrelated to video content and express general hostility by insulting, swearing or using otherwise offensive language. An example of this is a comment like: "This sucks, go die!"

First you will be asked about flaming and then you will be questioned about your preferences and personality.

1.What is your gender?

☐ Male ☐ Female

2. Have you flamed in the past?

☐ I have never flamed ☐ I have flamed a few times ☐ I flame on a regular basis

Please give you opinion

	strongly agree				**strongly disagree**
3. I would flame to get away from what I'm doing	○	○	○	○	○
4. I would flame because it's entertaining	○	○	○	○	○

5. I would flame because it amuses me

6. I would flame because it's a pleasant rest

7. I would flame because it's thrilling

8. I would flame because it gives me something to occupy my time

9. I would flame because it's just a habit, just something to do

10. I would flame when I have nothing better to do

11. I would flame because it calms me down when I'm upset

12. I would flame to release my bad mood

13. I would flame because it helps pick me up when I'm feeling blue

14. I would flame because it's enjoyable

15. I would flame because it passes the time away particularly when I an bored

16. I would flame because it's fun to play around and check things

17. I would flame because it relaxes me

18. I would flame to escape from the present

19. I would flame when I want to think about something else

20. I would flame to forget about my worries and responsibilities

Each of the items below contains two choices, A and B. Please indicate which of the choices most describes your likes or the way you feel. In some cases you may find items in which both choices describe your likes or feelings. Please choose the one which better describes your likes or feelings. There are no right or wrong answers as in other kinds of tests. Be open and give your honest appraisal of yourself.

21. ☐ A. I like "wild" uninhibited parties ☐ B. I prefer quiet parties with good conversation

22. ☐ A. I dislike "swingers" (people who are uninhibited and free about sex) ☐ B. I enjoy the company of real "swingers"

23. ☐ A. I find that stimulants make me uncomfortable ☐ B. I often like to get high (drinking liquor or smoking marijuana)

24. ☐ A. I am not interested in experience for its own sake ☐ B. I like to have new and exciting experiences and sensations even if they are a little frightening, unconventional, or illegal

25. ☐ A. I like to date members of the opposite sex who are physically exciting ☐ B. I like to date members of the opposite sex who share my values

26. ☐ A. Heavy drinking usually ruins a party because some people get loud and boisterous ☐ B. Keeping the drinks full is the key to a good party

27. ☐ A. A person should have considerable sexual experience before marriage ☐ B. It's better if two married persons begin their sexual experience with each other

28. ☐ A. Even if I had the money I would not care to associate with flight rich persons like those in the "jet set" ☐ B. I could conceive of myself seeking pleasures around the world with the "jet set"

29. ☐ A. There is altogether too much portrayal of sex in movies ☐ B. I enjoy watching many of the "sexy" scenes in movies

30. ☐ A. I feel best after taking a couple of drinks ☐ B. Something is wrong with people who need liquor to feel good

Read each sentence carefully and give your opinion:

very unlike me **very much like me**

○ ○ ○ ○ ○

31. Most people stand up for themselves more that I do

32. There are times when I look for a good strong argument

33. At times I have not made or gone on dates because of my shyness.

34. When I am eating out and the food I am served is not cooked the way I like it, I complain to the person serving it.

35. If a person serving in a store has gone to a lot of trouble to show me something which I do not really like, I have a hard time saying “No"

36. I try as hard in life to get ahead as most people like me do.

37. I have sometimes not asked questions for the fear of sounding stupid.

38. To be honest, people often get the better of me.

39. I do not like making phone calls to businesses or companies.

40. I feel silly if I return things I don’t like to the store that I bought them from

41. If a close relative that I like was upsetting me, I would hide my feelings rather than say that I was upset

42. During an argument, I am sometimes afraid that I will get so upset that I will shake all over.

43. If a famous person were talking in a crowd and I thought he/she was wrong, I would get up and say what I thought.

44. If someone has been telling false and bad stories about me, I see him or her as soon as possible to “have a talk” about it.

45. I often have a hard time saying “No.”

46. I complain about poor service when I am eating out or in other places.

47. When someone says I have done very well, I sometimes just don’t know what to say

48. If a couple near me in the theater were talking rather loudly, I would ask them to be quiet or to go somewhere else and talk.

49. I am quick to say what I think

Please give your opinion

not at all typical of me **very typical of me**

50. If I do not have enough time to do everything, I do not worry about it.

51. My worries overwhelm me.

52. I do not tend to worry about things.

53. Many situations make me worry.

54. I know I should not worry about things, but I just cannot help it.

55. When I am under pressure I worry a lot

56. I am always worrying about something.

57. I find it easy to dismiss worrisome thoughts.

58. As soon as I finish one task, I start to worry about everything else I have to do.

59. I never worry about anything.

60. When there is nothing more I can do about a concern, I do not worry about it anymore

61. I have been a worrier all my life.

62. I notice that I have been worrying about things

63. Once I start worrying, I cannot stop.

64. I worry all the time.

65. I worry about projects until they are all done

Your participation in this study is appreciated, also on behalf of StudentenForschung!

Would you like to receive the results of this study?

Yes, and I would not mind to complete other studies in the future. Yes

- *StudentenForschung will ask the report from the student. However, since this is voluntarily, we cannot promiss you that we will always be able to sent you the study results.*

No, but I would not mind to complete other studies in the future. No

Your email address:

StudentenForschung appreciates your participation in future studies by students for study purposes. You will receive at maximum 1 invitation per month. Unsubscription is always possible, at the bottom of each invitation you will find the unsubscribe-link. Your email address is never directly given to students, nor other third parties.

Thanks for your participation!