

Exploring Selective Exposure and Selective Avoidance Behavior in Social Media

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ABSTRACT

This study investigates social media users' preferences of encountering or actively avoiding undesired content and conflicts in social interaction with others. Based on a nationwide survey (N=3706) conducted in Finland and using principal component analysis, we identify three different types of social media use in relation to online information sharing and social interaction: conformist, provocative and protective. We then modelled those variations according to demographic variables and subjective life satisfaction. We found that women are more likely to use social media in a conformist and protective way whereas men have a higher probability to be provocative. We also found that younger and more educated people have a higher probability to use social media in a conformist and protective way. Finally, we suggest that subjective life satisfaction more powerfully predicts provocative use compared to age or education.

CCS CONCEPTS

• **Human-centered computing** → **Human computer interaction (HCI)**; User studies, → **Collaborative and social computing**; Social media

KEYWORDS

selective exposure, selective avoidance, social media, social networking

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1 INTRODUCTION

The connection between an individual's psychological well-being and social media use has received plenty of scholarly attention. There is evidence that online social networking can increase people's social capital and improve their well-being [1]. There is also a positive relationship between an individual's life satisfaction and intensity of Facebook use, which has been explained by users' engagement in behaviors that contribute to their social capital [2]. Particularly, the quality of interaction on social media has been found to matter for psychological well-being. Social media provides users with many supportive elements, which are important for experienced life satisfaction [3].

Recently, there has been discussion on how social media can reinforce people's existing beliefs and biases. By providing people with information they prefer and similarly preventing them from exposure to contradicting views, social media is suspected to facilitate the emergence of

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groups with high agreement and non-tolerance of challenging views, often referred to as “echo chambers” [4]. The terms “selective exposure” and “selective avoidance” are used to describe the behavior in which a person actively seeks for information that supports their views and avoids information that challenges them [5]. Consistently, experimental studies have shown that selective exposure to attitude-consistent messages strengthens related attitudes and selective exposure to attitude-discrepant messages weakens related attitudes [6].

In social media, selective avoidance can be easily performed by removing or hiding unwanted content or persons. Social media users can add individuals from different social contexts to their friends list. This characteristic, which brings people from diverse contexts together in a single location, is referred to as “context collapse” [7]. Context collapse is likely to create tensions when someone attempts to maintain a consistent presentation of self for these fragmented social media audiences [7]. However, also increased and repeated exposure to dissonant information and perspectives can motivate selective avoidance and use of boundary regulation tools, such as hiding and unfriending, to control the exposure to unwanted content and connections that transmit this content [8, 9]. The exposure to unpleasant or inappropriate content and attempts to manage it have been named as one of the main stressors in social media interaction [10].

Previous research indicates that there are substantial differences in access to online media, use purposes, skills and benefits gained from its use [11, 12]. In Finland, context of the present study, recent statistics show that highly educated and wealthier users are utilizing social media more actively [13]. Gender has also become a prominent factor in Finns’ social media use during this decade, as women are more generally logged on to social media sites [14].

Although the majority of research has focused on younger demographics, some studies on the variety of social media use in different age groups have surfaced. Older people have been found to be more conventional and restricted in their social media participation, while younger adults and especially teenagers have a much more extensive selection of different behavior models and roles when using Facebook [15]. There are also age differences in how users experience privacy on Facebook. For teenagers and younger adults, having multiple audiences in the same place disrupts the content sharing process and causes experiences of social surveillance and social control [16]. As a reaction to this, they use conformity as a strategy and avoid sharing anything too private and personal [16]. According to the same study, older adults over age 40 were less aware of their privacy settings on Facebook, and overall, they found the privacy tools too difficult to use.

There is still not much work investigating the variety of people’s preferences regarding social media exposure. Munson and Resnick [17] found that Internet users vary greatly in their attitudes regarding diversity and conformity of information, as some of them prefer a greater spectrum of views when reading political content more than others. They argue that none of these behaviors are a fundamental trait of

human behavior that describes all people but instead, they describe different preferences of different groups of people, and should be better considered when designing websites and aggregating content. In this study, we focus on social media users’ social action and choices in the case of unwanted content. Our goal is to provide a new frame to understand how people are dealing with unwanted content and information. We form a new typology for social networking site users by means of selective exposure and selective avoidance. We also assess how sociodemographic factors and life satisfaction affect various behavior models on these platforms. The majority of the research investigating selective exposure and selective avoidance on social media has been focusing on single platforms, such as Twitter or Facebook. In this work, we approach social media more extensively, covering discussion forums, social networking sites and online news sites with comment sections.

This work-in-progress paper is based on empirical data collected via population-wide survey in Finland between December 2017 and January 2018. With this data we will answer the following research questions:

1. Is there variety in the respondents’ behavior in confronting undesired information and social interactions?
2. To what extent is online behavior associated with the demographic background of respondents?
3. To what extent are online behavior and an individual’s overall life satisfaction associated?

2 DATA AND METHODS

Our analyses are based on a survey, which was collected from two different sources. The first part was distributed by mail to a simple random sample of 8000 15–74-year-olds who live in Finland and speak Finnish. A total of 2452 Finns responded to this collection, which amounted to a 31 percent response rate as those who could not be reached were omitted from the sample. Secondly, we improved the data by collecting a sample of 1200 respondents aged 18-74 from an online panel of volunteer respondents administrated by a market research company. The final data included a total of 3706 respondents of which 66% are based on probability sampling and 34% are based on nonprobability sampling.

The survey included questions of the participants’ basic demographics, such as gender, education and age. The data represent both genders well as 50% of the participants were male and 50% female. The final sample is also relatively representative in terms of education, as 51% of the sample has secondary level education and 34% holds master or bachelor degree. Respondent age ranged from 18 to 74 years, mean being 51 years, which makes the age distribution of the data slightly skewed towards the older age groups as the population mean is 46 with respect to applied age range.

Other questions focused on their media use and attitudes. For instance, we asked which traditional and online media they used,

the frequency of use and the reasons for use. Usually, older people might be expected to use the Internet less frequently and with less variety than younger ones. In general, the Internet and social media are commonly used in Finland among all age groups, including older people and unlike in younger age groups, social media use is expected to grow among people over age 44 [18]. According to the recent report by Official Statistics of Finland [13], 43% of the age group of 55-64 years and 25% of the age group of 65-74 years reported using social networking sites. In this respect, our sample is bit overrepresented with social media users especially in terms of older users, as 52% of the age group of 55-64 years and 42% of the age group of 65-74 years reported using the social networking sites.

We begin our analysis by utilizing principal component analysis (PCA) for different kind of behavioral variables addressed to social media use. The main target of PCA is to extract visible features of how each variables are associated with one another. According to the PCA solution, we establish dependent variables for multivariable analysis.

We conduct multivariable analyses separately for different dependent variables by using ordinary least squared (OLS) models. The aim of the explanatory analysis is to find the main predictors for different kind of social media use. In this respect, we test the extent to which independent variables, namely gender, age, education and life satisfaction are associated with dependent variables. We measure the subjects' experienced life satisfaction with one question: "How would you rate on a scale from 0 'very unsatisfied' to 10 'very satisfied' your satisfaction of your life?" We also control respondents' social media use frequency.

3 RESULTS

We wanted to find out if there are individual differences in respondents' social media behavior, more specifically, in their willingness to encounter dissonant views, undesirable content and conflicts, and if demographic factors explain these differences. Drawing on existing literature [15, 17], we expected that different user types could be identified in relation to predictability or diversity of content, and we created statements that would distinct these individual differences. Principal component analysis was conducted in order to reveal users' different behavioral patterns. In a questionnaire, applied items were presented to respondents as a set of statements to the main question of "What do you think of the following statements". Respondents were asked to choose their opinion from a five point Likert-scale in which they were given options such as 1 – "Completely disagree", 3 – "Do not agree or disagree", and 5 – "Completely agree". A total of nine statements were presented and they were all employed in PCA. As a result of PCA, we found three main components measuring respondents' online behavior from different approaches. These components are formed on the basis of eight different items as the one item was excluded from the final solution because of the high uniqueness and low intercorrelation with any component. The final solution is presented in Table 1.

The first component, Conformist use, includes items about fear of hurting others' feelings, avoidance of conflict, giving a good impression online and supporting others. The component two, Provocative use, consists of items about deliberately provoking others on social media by disagreeing with others and sharing content that is expected to annoy others. The third component is named as Protective use, because it describes the aim to protect

oneself from harmful or offensive online content using selective avoidance strategies. It includes items about hiding undesirable content and removing or hiding annoying persons from social networks.

On the basis of the PCA solution, we generated three mean variables. The descriptive statistics for mean variables is shown in Table 1. Each of variables are continuous-types and suitable for parametric tests as interval variables [19]. Next, we run OLS models to find the main predictors of generated variables. Only those respondents who used social media at all and had valid scores on all three dependent variables were included in the analysis.

Table 1: Three Main Components and Their Loadings

Survey questions	1	2	3
The fear of offending others limits my posting of my opinions on social media	.57		
I try to give others on social media an improved image of who I am	.38		
I very often "like" other users' posts in order to show support and empathy	.38		
I purposefully share material on social media that I believe will provoke others		.60	
I comment on others' posts on social media even when I disagree with them		.62	
I share content on social media that I feel could lead to disputes		.33	
I have hidden content that conflicts with my points of view on social media			.70
I have hidden or removed annoying or bothersome users on social media			.57

<i>Descriptive statistics for mean variables, Means (Std.dev)</i>			
Component 1: Conformist use	2.5 (0.9)		
Component 2: Provocative use		2.2 (0.8)	
Component 3: Protective use			2.3 (1.2)

Table 2 displays the effects of demographic variables and life satisfaction on the dependent variables. As seen in the first column that presents effects on the conformist use, gender was a crucial predictor as females differ significantly from males. Also there can be seen a strong effect of age, as the younger people tend to use

social media in a more conformist way than older. However, interestingly, this effect can be seen solely when examining the three oldest age groups (45-55, 55-64 and 65-74). When it comes to differences between educational levels, we found that the respondents with master degree had the highest scores in the conformist variable. Those with higher life satisfaction tend to be less conformist.

Table 2: Predicting Three Types of Social Media Behavior

VARIABLES	(1) Conformist use	(2) Provocative use	(3) Protective use
Female	0.155*** (0.031)	-0.323*** (0.029)	0.182*** (0.043)
Age (omitted under 30 years)			
31-44	-0.069 (0.049)	0.068 (0.045)	-0.050 (0.068)
45-54	-0.175*** (0.052)	0.076 (0.048)	-0.337*** (0.072)
55-64	-0.304*** (0.051)	-0.022 (0.047)	-0.515*** (0.070)
65 or older	-0.294*** (0.053)	-0.014 (0.049)	-0.610*** (0.073)
Education (omitted primary/secondary)			
Tertiary	0.060 (0.036)	-0.011 (0.033)	0.133** (0.050)
Master	0.170*** (0.040)	0.005 (0.037)	0.192*** (0.056)
Life satisfaction	-0.034*** (0.008)	-0.040*** (0.008)	-0.033** (0.011)
Constant	1.885*** (0.096)	2.398*** (0.088)	1.790*** (0.133)
Observations	2,716	2,716	2,716
R-squared	0.247	0.074	0.197

Standard errors in parentheses

Models control for social media use frequency

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

When moving to the next column in order to evaluate predictors of provocative use, we can see that the direction of gender effect turn around as men reported higher scores than women. Interestingly, we did not find age or education effects in terms of provocative use. Instead, the effect of life satisfaction could be seen to be extremely strong. Those with higher life satisfaction reported lower scores for provocative use. Finally, we turn to analyze protective use. Here, we also found a significant difference between genders, as women reported higher scores. As is the case with conformist use, protective use is also dependent on users' age. Younger users seem to be more protective than the older users. Again, this is especially the case of the three oldest groups who

reported lower scores than younger. In terms of education, we found that highly educated users had higher scores. The final component underlines the effect of life satisfaction, which was similar in all three behavior models.

4 CONCLUSIONS

In this work-in-progress paper, we have presented the initial findings from the nationwide survey exploring people's social media behavior, our special focus being on selective exposure and selective avoidance. Using principal component analysis we identified three types of social media use, which implicate differences in users' tolerance of conflicts and exposure to unwanted content. We generated three mean variables on the basis of component solution for further analysis.

According to the results of OLR analysis, there are significant structural differences in how different population groups encounter dissimilar opinions and conflicts. In terms of gender, women are more likely to protect themselves or act conservatively on social media. Men, on the other hand, are more likely to act provocatively. Also, the highly educated respondents are more likely to protect themselves from dissonant content or act more conciliatory when exposed to such subject matter. Our findings also show the effect of age in two behaviors, conformist and protective, as oldest respondents were less conformist and protective online. This finding is similar to previous work [16], which indicates that particularly young people experience social control online, and therefore, they tend to be more restricted in what they share with others. This may also indicate that older people are less aware of or less concerned about "netiquette" and their own privacy. However, in relation to provocative social media behavior, no age differences were found.

In terms of life satisfaction, our findings are not completely uniform with previous research. Surprisingly, those who are conformist, i.e., engage in supportive behavior and avoid offending others, did not score highest in life satisfaction. On the other hand, the effect of life satisfaction was extremely strong in provocative social media use: those who tend to engage in provocative behavior were the least satisfied with their lives. This confirms the assumptions that anti-social online behavior such as trolling and deliberately offending others reflects an individual's lower psychological well-being. These findings also suggest that people with higher life satisfaction do not need to resort to any of these different strategies, while those who are less satisfied with their lives are more dependent on these strategies when they are confronting undesired content.

Scholars have argued that one of the most harmful consequences of social media is exposure to antagonist material [20-22]. Taking this into account, it is not surprising that people are actively protecting themselves from such content. Especially women and younger age groups engaged in selective avoidance, which may indicate that those groups were more aware of harmful online content than others, or they did not prefer seeing conflicting views in their social media newsfeeds.

When considering the formation of echo chambers in social media environment, one of the most crucial factors is people's tendency to actively keep one's social media content preference-consistent. This can mean that different population groups' values and views are becoming more separated. In this sense, those who try to protect themselves are placing their individual and personal preferences before the benefit of society as a whole. Given that

isolation can encourage polarization in terms of norms, behaviors and attitudes, the formation of echo chambers poses a social risk. Thus, the balance between the desire to protect oneself and the cost of isolating oneself from opinions or people with whom one disagrees is an important one; where users seek to minimize challenging viewpoints that might otherwise widen a worldview beneficially, for example, a social loss is experienced in the form of lost opportunities for valuable dialogue. Harmful biases, prejudices and beliefs in inaccurate information represent the harmful side of protecting oneself against discomfort. On the other hand, protecting oneself from harassment and intrusive content or users is an important aspect of online navigation, one that should not be eliminated.

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