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VOYEURISM AND EXHIBITIONISM AS GRATIFICATIONS FROM PROSUMING SOCIAL NETWORKING SITES

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Complete Research

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Abstract

In social networking sites (SNSs), the user has a dual role as one produces content for both oneself and for the other users, and consumes the content produced by other users. Thus, we argue the SNS users can be characterized as prosumers. Drawing on the Uses & Gratifications approach, we further argue that voyeurism and exhibitionism are important gratifications from prosuming SNSs. We thus examine voyeurism as an outcome of content consumption and exhibitionism as an outcome of content production in SNS setting. To this end, we use Partial Least Squares (PLS) to analyse a sample of 289 Facebook users. The results show that content consumption significantly predicts voyeurism and content production exhibitionism. The study contributes to the literature on SNS use by disaggregating SNS use into content consumption and content production, and placing voyeurism and exhibitionism as the outcomes of the two. As its second main contribution, the study applies and further develops the concept of prosumption towards SNS use.

Keywords: Exhibitionism, Voyeurism, Prosumption, Social Networking Sites, Content consumption, Content production

1   Introduction

Engagement in social networking sites (SNSs) such as Facebook and its Chinese equivalent Renren has mushroomed globally in the past years. Nearly 80% of the Internet users use SNS services and these sites currently account for nearly one quarter of the total time spent online (Panek et al., 2013). For example, Facebook alone reported to have 1.19 billion monthly active users in September 2013.

SNS are "web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system" (boyd & Ellison, 2007, p. 211).

Due to the rapid growth and the size of the SNS use as a phenomenon, also research on the positive and negative aspects of SNS use has increased rapidly. With respect to the positive side, prior research has reported SNS use having a positive relationship with social capital (Ellison et al., 2007; Steinfield et al., 2008), utilitarian gratifications such as an immediate access to friends for organizing social activities and distributing information (Xu et al., 2012). In addition, there has been a growing interest towards the adverse aspects of SNS use (Carpenter, 2012; Garcia & Sikström, forthcoming; Shelton & Skalski, forthcoming). Alarmingly, research has reported SNS use to be positively related to socially toxic psychological phenomena such as addiction (Turel & Serenko, 2012), narcissism (Carpenter, 2012; Panek et al., 2013) and psychopathy (Garcia & Sikström, forthcoming).

However, with respect to SNS use, there are an increasing number of phenomena that are not overtly negative or positive, but can develop into both directions. For example, SNSs can help people to stay better informed on what is happening in their social circle. On the other hand, SNSs can be used to stalk other people. With this paper, we focus on this 'grey area' related to SNS use. Furthermore, since today's SNSs are aggregations of different media (Smock et al. 2011) that offer a wide range of different features and components from different information systems, it is plausible to assume that different ways to use SNSs have distinct antecedent and consequences.

Against this backdrop, we introduce voyeurism and exhibitionism as gratifications stemming from SNS use. In addition, we disaggregate the SNS use into consuming and producing the content of an SNS. Creating content in SNSs facilitates self-presentation (Belk, 2013; McAndrew & Jeong, 2012) and self-disclosure (Hollenbaugh & Ferris, 2014) that in turn drives exhibitionism. Hence, exhibitionism is required to make voyeurism possible. We further show that voyeurism and exhibitionism are relevant constructs in SNS setting also since they grasp important dimensions of how create value from using SNSs.

In social networking sites (SNSs), the user has a dual role as one produces content both for oneself and for the other users, and consumes the content produced by other users. When contributing to the content production with e.g. photo uploads or status updates, the user creates value for the other users but also for oneself in the form of feedback obtained from other users. Hence, due to the dual role as producer and consumer, a SNS user can be labelled to as a prosumer (Toffler, 1980; Xie et al., 2008). However, a SNS user deviates from a traditional prosumer in that one creates value not only for oneself but also for the other users of the service.

With this paper we contribute to two areas. By disaggregating SNS use into content consumption and content production, and placing voyeurism and exhibitionism as the outcomes of the two, we contribute to the literature on SNS use (Pempek et al., 2009; Smock et al., 2011; Steinfield et al., 2008). Second, by applying the prosumer concept to SNS users, we contribute to the discussion on the roles of users of social media as prosumers (Toffler, 1980; Xie et al., 2008), as content creators (Chen et al., 2013) and as value (co-)creators (Payne et al., 2008; Vargo & Lusch, 2004; Vargo et al., 2008). In doing so, we also advance the understanding of the mutual dependencies between SNS users to create network effects (Armstrong, 2006).

The paper proceeds as follows: after the introductory section, we present the theoretical foundation in sections 2 and 3 to draw the hypotheses in the fourth section. In section 5, we report the empirical research. In the sixth section we present the main findings as well as discuss the implications for theory. We conclude by unveiling the limitations of the study and offer suggestions for future research.

2   Voyeurism & exhibitionism

2.1   Voyeurism

Traditionally, the concept of voyeurism has referred to the sexual interest in or practice of spying on people who are naked or who are engaged in sexual activities, or other actions that are usually considered private in nature (Hirschfeld, 1938). The psychoanalytic tradition has recognized voyeuristic behaviour as a source of gratification. Sigmund Freud (1905; 1975) used the term scopophilia with regard to the pleasure in looking.

The most extreme behavioural manifestations of voyeurism are clinically regarded as abnormal sexual behaviour. American Psychiatric Association's (APA) Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, 1994) offers the following psychiatric diagnostic criteria for paraphiliac voyeurism:

A. Over a period of at least 6 months, recurrent, intense sexually arousing fantasies, sexual urges, or behaviours involving the act of observing an unsuspecting person who is naked, in the process of disrobing, or engaging in sexual activity.

B. The person has acted on these sexual urges, or the sexual urges or fantasies cause marked distress or interpersonal difficulty.

Today, as pointed out by Calvert (2009), voyeurism does not necessarily include sexuality. In the context of media use**,** Calvert (2009, p. 2) defines voyeurism as "the consumption of revealing images of and information about other's apparently real and unguarded lives, often yet not always for purposes of entertainment but frequently at the expense of privacy and disclosure, through the mass media and Internet."

Importantly, many mundane activities such as watching reality TV can be driven by voyeuristic motives without any sexual connotation (Calvert, 2009). This conceptualization of voyeurism draws on Lacan's psychoanalytic thinking that voyeurs look for what they cannot otherwise see. Accordingly, voyeurism is a common personal trait possessed to different degrees by all "normal" individuals (Baruh, 2010, p. 203). However, voyeurism is different from pure curiosity or seeking for information that can also motivate people to use SNSs without contributing in the form of self-disclosure. As a result, we conceptualize voyeurism as pleasure derived from access to private details (Metzl, 2004).

In addition to pleasure, voyeurism is related to power. While looking at others a voyeur does not expose him/herself. At the same time, the voyeur obtains information and hence learns from others by watching them, but gives little in return. Thus, voyeurism affords social comparisons by helping to place oneself in relation to others as well as in the society. Social comparisons are important for obtaining self-relevant information in the social identity and for building the extended self (Oyserman, 2007). In doing so, the voyeur places him/herself in a superior position in relation the ones he/she watches.

In addition to power, voyeurism is about maximizing control. A voyeur does not contribute to social exchange that characterizes human interactions and relationships (Blau, 1964) as it would require at least some degree of self-disclosure (Ellison & Firestone, 1974). Hence, the voyeur also avoids the opportunities for attachment building and developing social relationships.

In SNS setting, a voyeuristic behaviour is a means to maintain maximum control over one's use of use of the SNS, and at the same time, the power over the other users one observes in the SNS (cf. Calvert, 2009). This in turn reflects the private and individualistic nature of voyeurism. Voyeurism does not require interaction with other people or involvement in communities (Calvert, 2009). From a broader perspective, it points to the increasing individualism, decreased face-to-face interaction that according to some theorists characterize the erosion of social capital in the western societies, particularly in the US (Putnam, 2000).

2.2   Exhibitionism

Exhibitionism refers to self-disclosure "process of making the self known to others"(Jourard & Lasakow, 1958, p. 91). With regard to exhibitionism, the self-disclosure is not driven by building trust to develop interpersonal relationships (see e.g. Joinson et al., 2008). Rather, the self-disclosure is driven by one's narcissistic tendency (Ames et al., 2006; Brunell et al., 2011; Carpenter, 2012) to demonstrate superiority and to seek for admiration from other people in order to build a desirable self-image. To this end, exhibitionism is defined as "an extravagant behaviour that is intended to attract attention to oneself" (Oxford English Dictionary) and "the act of practice of behaving so as to attract attention to oneself" (Webster's Ninth Collegiate Dictionary).

As a psychological trait in the general population, exhibitionism is not overtly negative or harmful like for example manipulation of others or hostility. Rather, it indicates extraversion and low impulse control (Panek et al., 2013). Furthermore, exhibitionism is considered as a first order-component of narcissistic personality (Ames et al., 2006; Raskin & Terry, 1988). A combination of self-absorption, vanity, superiority, and exhibitionistic tendencies that illustrates the features of self-love and theatrical self-presentation is labeled grandiose exhibitionism (Ackerman et al., 2011). Exhibitionism is diagnosed paraphiliac when it fulfils the following criteria (DSM-IV, 1994):

A.   Over a period of at least 6 months, recurrent, intense sexually arousing fantasies, sexual urges, or behaviours involving the exposure of one's genitals to an unsuspecting stranger.

B.   The fantasies, sexual urges, or behaviours cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

As pointed out in the literature, self-disclosure in blogs (Hollenbaugh, 2011) or Facebook (Carpenter, 2012) can be driven by exhibitionism as a narcissistic trait. As Facebook does not allow publishing nudity, there are several more appropriate online venues for extremely voyeuristic and exhibitionistic individuals. Thus, we do not consider voyeurism and exhibitionism as psychopathological conditions but conceptualize exhibitionism as a gratification that stems from a narcissistic tendency to disclose personal information online.

SNSs include a number of features that facilitate self-disclosure. Thus, extensive self-disclosure via SNSs can lead to unintended consequences such as "oversharing" (Labrecque et al., 2011). Sharing one's life experiences in SNSs is not only about social interaction but also increasingly an important means to build the self (Belk, 2013). The prevalence of online venues such as SNSs has increased people's dependency of the feedback from other people in the process of building the self (Belk, 2013).

To sum up, the diffusion of SNSs and social media has created new opportunities for voyeurism and exhibitionism. Voyeurism cannot exist without disclosure whereas exhibitionists require an audience. Hence, voyeurism and exhibitionism essentially co-exist in SNSs.

3   Co-created gratifications

Social media services such as SNSs facilitate the production of user-generated content(Kaplan & Haenlein, 2010). The user-generated content is also the core source of value that makes the users

engaged in the service. Thus, when acting as content producers the users are co-creators of value (Vargo & Lusch, 2004). The service operator in turn facilitates and offers premises for the users' content production. The facilitation and premises offered by the service operator can be viewed as value propositions that the users utilize in their value-creation (Vargo & Lusch, 2008).

When sharing their experiences, reading and commenting the posts of other users, the users create value both for themselves and for other users. This value is typically experiential and subjective for each user (Vargo & Lusch, 2008) but also essentially dependent on the activities of other users. As a result, SNSs are an insightful example of interdependent networks of users as simultaneous producers and consumers, often referred to as prosumers (Toffler, 1980; Xie et al., 2008). Eventually, through utilizing the user base and the user-created content, the users' value creation may translate into benefit to the service operator.

Interestingly, in our case, the value creation differs between voyeurs and exhibitionists. In terms of contributing to content production, a voyeur appropriates value from viewing others but creates little content and hence value for others in return. However, yet the voyeurism does not directly advance content production, it is still essential to create an audience that exhibitionism requires to flourish and garner the content production.

Due to the duality of users as content consumers and content producers, instead of viewing usage as a monolithic black box (cf. Benbasat & Barki, 2007), it is theoretically meaningful to disaggregate the usage to reflect these two aspects. Moreover, as pointed out by Smock and his colleagues (2011), Facebook is more usefully conceived of as a collection of tools utilized in different ways to meet different needs. Hence, due to the multitude of features and different forms of user-generated content, the underlying needs, the actual sources of value as well as the respective uses and gratifications are presumably diverse.

Against this backdrop, we employ the Uses & Gratifications (U & G) (Blumler, 1979; Katz et al., 1973) paradigm as the theoretical foundation of the study. We posit that using Facebook offers affordances that relate to satisfy one's voyeuristic and exhibitionistic needs. According to U & G, needs are "the combined product of psychological dispositions, sociological factors, and environmental conditions" (Katz et al., 1973, p. 516-517) that motivate media use. Gratifications in turn are the perceived fulfilment of a need through an activity, such as media use (Rayburn & Palmgreen, 1984). Thus, we view voyeurism and exhibitionism as gratifications from SNS use.

We thus examine to what extent voyeuristic gratifications are a consequence from consuming the content posted on a SNS by others users and exhibitionistic gratifications a consequence from producing content on a SNS. We define content consumption as the frequency of consuming the content posted on a SNS and content production as the frequency of producing content on a SNS.

By placing voyeurism and exhibitionism as outcomes SNS use, our reasoning departs from the dominant perspective of the technology adoption and use literature where the psychological gratifications, e.g. perceived enjoyment are typically viewed as antecedents of use (Venkatesh et al., 2003). In the following section we elaborate our hypotheses in detail.

4 HYPOTHESES

According to the research on media choice, user perceptions of the affordances of a tool will affect which medium users choose for a particular task (Daft et al., 1987). U & G studies often focus on understanding the motives, or reasons people use media, which in turn helps predict the gratifications they will gain from media use (Ruggiero, 2000). Rather than a single media or tool, SNSs today are increasingly aggregations of different media such as instant messaging, media sharing and repository services. In other words, SNSs today have been extending from the 'traditional' social network features that afford building and explicating one's connections. Thus, using a SNS to consume content is driven

by different motives and offers different gratifications than use that focuses on producing content.

In general, the features of SNSs facilitate increasing self-disclosure. The accelerated self-disclosure in turn makes obtaining information easy and hence increases the voyeuristic value of SNSs. Thus, people use SNSs to obtain information about other people. As stated by Steinfield et al. (2008) "features within the site make it easier for users both to broadcast information about their own activities and to engage in a form of social surveillance wherein they can track the activities of a wide set of Facebook Friends".

Subsequent studies have empirically verified this notion. People have been found to use SNSs to look for information about other people (Antheunis et al., 2010) and to stay updated on what is happening in their social circle (Junco, 2012). Furthermore, Pempek and her colleagues (2009) found that lurking other users is an important activity students engage on Facebook. As a result, by drawing on U & G and the evidence from previous literature, we assert that using a SNS by consuming the content of the service will offer the user voyeuristic gratifications and hypothesize the following:

H1: User's degree of consuming content of a SNS has a positive effect on voyeurism.

Calvert (2009) argues that a mutual dependency between voyeurs and exhibitionists exists. Exhibitionists essentially seek for opportunities to show off in the pursuit of attention and admiration from other people. Exhibitionistic gratifications cannot be obtained through passive consumption of a SNS but require active communication. Typically, SNSs offer a wide range of features, but even more importantly, an audience for exhibitionistic purposes (Wang & Stefanone, 2013).

Exhibitionism has been broadly considered as either a component of (Ames et al., 2006; Raskin & Terry, 1988), or at least closely related to (Ackerman et al., 2011) narcissism. Narcissism in turn has been found to predict establishing a profile that projects positive image to others, posting photos, getting to know as many people as possible as well as having a positive relationship with the number of friends in SNSs (Bergman et al., 2011). After accounting for extraversion, narcissism has been found to predict profile picture rating and status update frequency (Ong et al., 2011).

Furthermore, with regard to exhibitionism in particular, prior research has found exhibitionism to be positively related to the amount of self-disclosure (Hollenbaugh & Ferris, 2014) and check-in intensity (Wang & Stefanone, 2013) on Facebook. Finally, grandiose exhibitionism was found to predict self-promotion on Facebook (Carpenter, 2012). Hence, it is plausible to assume that a positive relationship between exhibitionism and content production exist. To this end, we put forward our final hypothesis:

H2: User's degree of creating content on a SNS has a positive effect on exhibitionism.

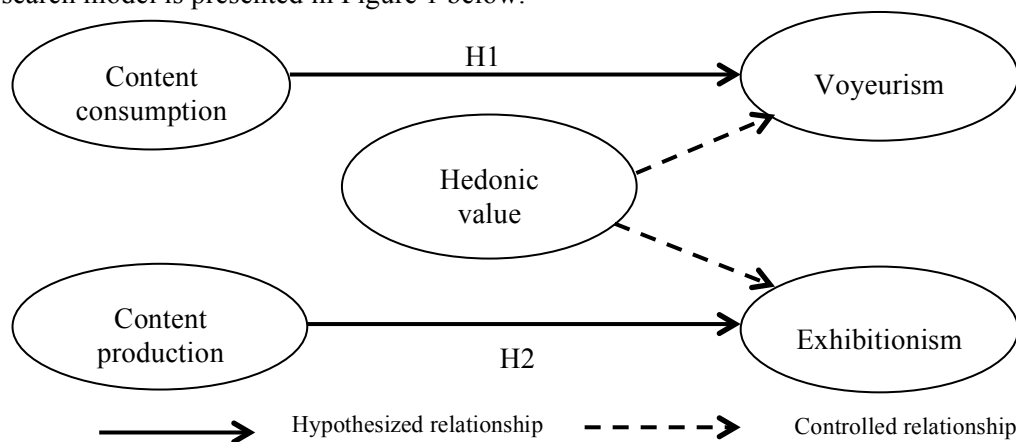The research model is presented in Figure 1 below.

Figure 1. The Research model

To more accurately investigate that extent to which content consumption predicts voyeurism and content production exhibitionism, we used hedonic value as a control variable for voyeurism and exhibitionism. Prior literature has associated hedonic gratifications with SNS use (Kim et al., 2011; Lin & Lu, 2011). Therefore, it is meaningful to further examine the relationships between the gratifications.

5 Empirical research

5.1 Data collection

The data was collected with an online survey among student of a Finnish university. The respondents were randomly selected from a sample that in turn was randomly selected from student database. The survey was sent to altogether 1,500 respondents. Altogether 289 usable responses were received. This yielded to a response rate of 19.3 per cent. With regard to the gender distribution of the respondents, 68 per cent of were female.

To investigate the possible non-respondent bias, we ran a series of independent samples t-tests. The respondents were first divided into two groups based on the median date of completion of the survey and then compared on their Facebook use, voyeurism, exhibitionism and enjoyment (Armstrong & Overton, 1977). The test did not reveal any statistically significant differences between the early and late responses, supporting the notion that non-response bias was not a major concern in our study.

5.2 Measurement development

We developed the measures of content production and content consumption. We first reviewed existing measures on SNS use. We found that the existing measures (Chen et al., 2013; Smock et al., 2011) did not fully cover the wide selection of activities available for users of SNSs such as Facebook. Hence, we concluded that it is meaningful to develop the respective measures by ourselves. We decided to focus contextually on Facebook since it is the most widely used SNS and offers a wide range of features for various purposes.

In order to develop the items of content production and content consumption, we asked a group of Facebook users to elaborate the activities they engage in when using Facebook. After this, we established an expert panel to discuss the tangible uses of Facebook. The panel consisted of IS faculty members and PhD students of a Finnish university with first-hand experience on different SNSs, including Facebook. The panel was established as an invitation-only Facebook group. The main reasons for using Facebook was that it assisted the panel members to see and recall each other's comments and keep a record of the discussion. In addition to open discussion on SNS use, the panel was asked to describe their own use of Facebook at a detailed level.

Based on the review of prior measures obtained from the literature and the use activities that emerged from the comments obtained from the group Facebook users and the expert panel, we established the list of candidate items. This list was again sent to subgroup of the expert panel for comments. After having received the comments, a final list of items was included in the survey instrument.

The measures for voyeurism, exhibitionism, and the control variable, enjoyment were adopted from existing scales. All constructs were measured with reflective indicators. The items were measured on a five-point Likert scale. The items measuring content consumption and content production were on a five-point frequency scale, using adjectives deemed to indicate approximately equal intervals in the measurement literature: never, seldom, sometimes, often, and very often (Schriesheim & Schriesheim, 1978). The other items were anchored from strongly agree to strongly disagree. Table 1 contains the measurement items with references to the respective literature.

Construct	Item	Source
Content consumption	***Please evaluate how often do you engage in the following activities on Facebook:***	Developed by the authors
	CC1Friendsprofiles: Watch my friends profiles	
	CC2Othersphotos: Watch other users' photos (others than my friends)	
	CC3Othersprofiles: Watch other users' profiles (others than my friends)	
	CC4Friendsphotos: Watch my friends' photos	
	CC5Friendsupdates: Follow my friends' updates	
	CC6Receivelikes: Receive likes/comments to my postings	
Content production	***Please evaluate how often do you engage in the following activities on Facebook:***	Developed by the authors
	CP1Statusupdate: Update my status	
	CP2Addphotos: Add photos to my galleries	
	CP3Commentspostings: Comment other users' postings	
	CP4Like: Like other users' postings	
	CP5Tagphotos: Tag my friends to the photos I have added to my galleries	
	CP6HBDwishes: Wish my friends happy birthday	
	CP7Checkin: Use the check-in feature to indicate where I am	
Exhibitionism	EXHIBIT1: I really like to be the center of attention on Facebook	(Ames et al., 2006)
	EXHIBIT2: I am apt to show off on Facebook if I get the chance.	
	EXHIBIT3: I get upset when people don't comment/put a like on my posts on Facebook	
	EXHIBIT4: I get into a bad mood if people don't comment/put a 'like' on my posts on Facebook	
Hedonic value	HED1: Using Facebook is enjoyable	(Davis et al., 1992)
	HED2: Using Facebook is pleasurable	
	HED3: Using Facebook is fun	
	HED4: Using Facebook is exciting	
	HED5: Using Facebook is interesting	
Voyeurism	VOYEUR1: I enjoy viewing Facebook because it helps me get a peek into other's private moments	(Bagdasarov et al., 2010; Nabi et al., 2003; Nabi et al., 2006)
	VOYEUR2: I get satisfaction out of watching others when they are unaware.	
	VOYEUR3: I like Facebook because it provides access to other people's information.	
	VOYEUR4: I like Facebook because people don't know that I am accessing their information	
	VOYEUR5: I enjoy viewing others' photos on Facebook no matter if I know them or not	
	VOYEUR6: I like watching people when they don't know that they are being watched	

Table 1. Measurement items and their sources

5.3 Data analysis

We employed the partial least squares (PLS) approach with SmartPLS software (Ringle et al., 2005) in our analysis. PLS is a second-generation regression method that combines confirmatory factor analysis with linear regression, and this makes it possible to run the measurement and structural models simultaneously.

We followed Gefen and Straub's (2005) procedure to test convergent and discriminant validity. Convergent validity indicates the extent to which the items of a scale that are theoretically related are also related in reality. We evaluated the convergent validity by examining item loadings, composite

reliabilities and average variance extracted (AVE) values. With regard to item loadings, Fornell & Larcker (1981) have recommended values at least 0.7 to be acceptable. As can be seen from Table 2, CP6HBDwishes, CP7Checkin, CC5Friendsupdates, and CC6Receivelikes do not fulfill this criterion. Thus, we decided to delete these items from subsequent analysis. Since the loading of EXHIBIT4 was only marginally below (0.67) the threshold, we retained it in the measurement. The composite reliabilities above 0.8 and AVE values exceeding 0.5 (see Table 3) further support that the convergent validity was satisfactory (Fornell & Larcker, 1981).

Construct	Item	Mean	Standard deviation	Loading	P value
Content production	CP1Statusupdate	2.21	0.75	0.76/0.76	<0.001
	CP2Addphotos	2.24	0.72	0.72/0.75	<0.001
	CP3Commentpostings	2.87	0.81	0.74/0.74	<0.001
	CP4Like	3.64	0.99	0.78/0.78	<0.001
	CP5Tagphotos	2.03	0.95	0.72/0.75	<0.001
	CP6HBDwishes	*3.34*	*1.17*	*0.63*	*<0.001*
	CP7Checkin	*1.33*	*0.67*	*0.50*	*<0.001*
Content consumption	CC1Friendsprofiles	3.18	0.99	0.88/0.88	<0.001
	CC2Othersphotos	3.00	1.10	0.86/0.87	<0.001
	CC3Othersprofiles	2.37	1.05	0.81/0.84	<0.001
	CC4Friednsphotos	3.34	0.91	0.80/0.79	<0.001
	CC5Friendsupdates	*3.83*	*0.97*	*0.61*	*<0.001*
	CC6Receivelikes	*3.24*	*1.00*	*0.51*	*<0.001*
Exhibitionism	EXHIBIT1	2.19	1.11	0.80	<0.001
	EXHIBIT2	2.13	1.14	0.77	<0.001
	EXHIBIT3	2.77	1.40	0.84	<0.001
	EXHIBIT4	1.93	1.16	0.67	<0.001
Hedonic value	HED1	2.98	0.99	0.86	<0.001
	HED2	3.23	0.99	0.88	<0.001
	HED3	3.42	0.95	0.84	<0.001
	HED4	2.68	1.01	0.75	<0.001
	HED5	3.29	0.98	0.84	<0.001
Voyeurism	VOYEUR1	2.78	1.25	0.76	<0.001
	VOYEUR2	1.64	0.99	0.72	<0.001
	VOYEUR3	2.64	1.25	0.80	<0.001
	VOYEUR4	2.36	1.36	0.85	<0.001
	VOYEUR5	2.27	1.23	0.71	<0.001
	VOYEUR6	2.14	1.22	0.80	<0.001

Note: Items in Italic were removed from the analysis due to low loadings

Table 2.   Item means, standard deviations, and loadings

Item	AVE	C.R.	Content Consumption	Content Production	Exhibitionism	Enjoyment	Voyeurism
CC1Friendsprofiles	0.72	0.91	**0.88**	0.44	0.31	0.38	0.47
CC2Othersphotos			**0.87**	0.35	0.28	0.30	0.49
CC3Othersprofiles			**0.84**	0.28	0.30	0.22	0.63
CC4Friednsphotos			**0.79**	0.46	0.31	0.37	0.37
CP1Statusupdate	0.57	0.87	0.23	**0.76**	0.45	0.31	0.10
CP2Addphotos			0.31	**0.75**	0.40	0.34	0.21
CP3Commentpostings			0.31	**0.74**	0.34	0.33	0.06
CP4Like			0.45	**0.78**	0.42	0.40	0.18
CP5Tagphotos			0.34	**0.75**	0.47	0.38	0.29
EXHIBIT1	0.60	0.85	0.25	0.47	**0.80**	0.33	0.27
EXHIBIT2			0.23	0.47	**0.77**	0.25	0.24
EXHIBIT3			0.34	0.47	**0.84**	0.36	0.41
EXHIBIT4			0.26	0.26	**0.67**	0.24	0.38
HED1	0.70	0.92	0.26	0.39	0.34	**0.86**	0.23
HED2			0.30	0.44	0.32	**0.88**	0.19
HED3			0.31	0.44	0.31	**0.84**	0.18
HED4			0.38	0.29	0.31	**0.75**	0.28
HED5			0.26	0.40	0.34	**0.84**	0.22
VOYEUR1	0.60	0.90	0.48	0.32	0.47	0.36	**0.76**
VOYEUR2			0.34	0.13	0.32	0.15	**0.72**
VOYEUR3			0.44	0.15	0.34	0.28	**0.80**
VOYEUR4			0.46	0.15	0.33	0.15	**0.85**
VOYEUR5			0.57	0.17	0.19	0.15	**0.71**
VOYEUR6			0.38	0.14	0.25	0.13	**0.80**

Table 3.   Item to construct correlation values, construct composite reliabilities and average variance extracted values

Discriminant validity refers to whether the items measure the construct in question or other (related) constructs (Gefen & Straub, 2005). We evaluated the discriminant validity by comparing the square roots of AVE values to the inter-construct correlations (Fornell & Larcker, 1981). Table 4 shows the correlation matrix with the square root of AVE values presented diagonally. As can be seen from the table, the square root of the AVE values for the variables are consistently greater than the off-diagonal correlation values, suggesting satisfactory discriminant validity between the variables.

We further verified the discriminant validity by examining item cross-loadings. As Table 3 shows, all items load higher on their assigned latent construct than any other construct (Fornell & Larcker, 1981). This indicates that discriminant validity on the item level is met for all the constructs (Gefen & Straub, 2005).

	Content Consumption	Content Production	Hedonic Value	Exhibitionism	Voyeurism
Content Consumption	**0.85**				
Content Production	0.44	**0.75**			
Hedonic Value	0.36	0.47	**0.84**		
Exhibitionism	0.35	0.56	0.39	**0.77**	
Voyeurism	0.59	0.24	0.27	0.41	**0.77**

Table 4. Square roots of AVEs and correlations between constructs

6 Discussion

6.1 Key Findings

The results from PLS analysis are presented in Figure 2. The empirical results offer support for our original assertions that voyeurism and exhibitionism are to significant degree associated with SNS use. Consequently, we present two main findings from the present study.

First, we have empirically demonstrated that voyeurism can be placed as a gratification variable that stems from consuming the content of SNS after having accounted for the influence of hedonic value. The positive association between these two variables is indirectly supported by prior studies. For example, Baruh (2010) reported a positive association between voyeurism and reality TV consumption. We have also found that content production significantly influences exhibitionism. This finding is also in line with prior studies (Hollenbaugh & Ferris, 2014; Wang & Stefanone, 2013) that have reported positive relationships between exhibitionism and self-disclosure (Hollenbaugh & Ferris, 2014) and check-in intensity (Wang & Stefanone, 2013) on Facebook.

Second, we have empirically shown that content consumption and content production are mutually dependent but distinct aspects of SNS use. Thus, disaggregating SNS use into content consumption and content production is a meaningful way to obtain a more fine-grained understanding of SNS use and the respective value creation. As a whole, the present study advances the concept of prosumption towards scenarios where the users produce the service not only for themselves but also for other users.
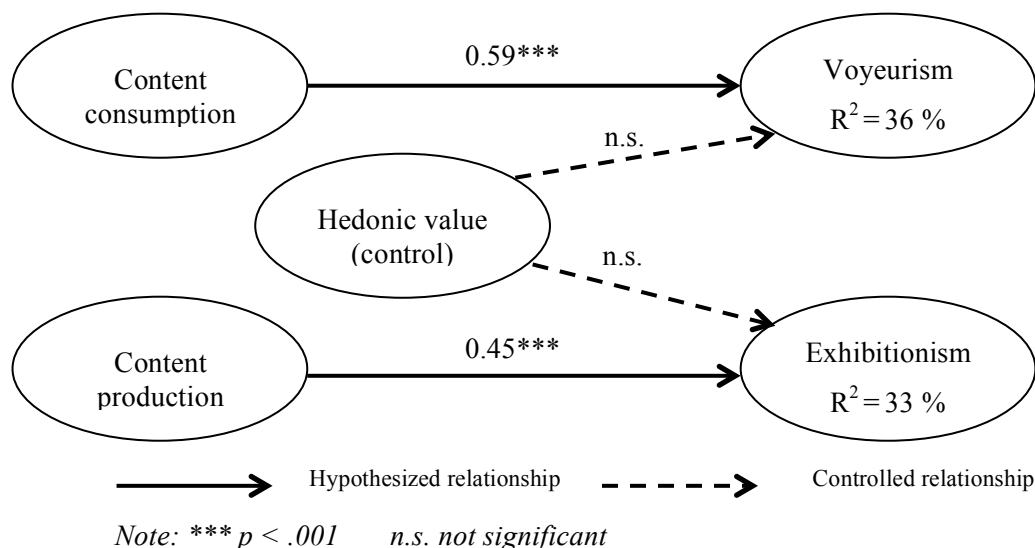

Note: *** p < .001   n.s. not significant

Figure 2. PLS results

6.2 Theoretical implications

From the uses and gratifications perspective, our study has implications to both the uses and the gratifications. Together, we shed light on two questions *how* and *why* people use SNS? This in turn adds on the understanding of SNSs as socio-technical systems but also the responds to the calls for a better understanding of the sociotechnical context in value creation (Vargo et al., 2008, p. 151).

First, with respect to the uses, our disaggregation of use into content consumption and content production offers a new angle to the research unboxing the use into more tangible behavioural components (Smock et al., 2011).

Our account of SNS use as content consumption and content production expands the concept of prosumption. Compared to the traditional examples of prosumption in gasoline stations, airline check-in or fast food restaurants where the consumer produces the service only for himself/herself (Xie et al., 2008), in SNSs the production is directed to other users. However, the value from this production is created from one's increased well-being (Vargo et al., 2008). The increased well-being in turn stems from the (positive) feedback from and interaction with other users. Hence, the value is dependent on the other users.

To be more precise, the exhibitionistic value of an SNS is dependent on the audience, i.e. voyeurs. The voyeuristic value in turn is dependent on the presence of exhibitionists. The success and business value of an SNS in turn is dependent on the balance between voyeurists and exhibitionists. Thus, the co-existence and mutual dependence of voyeurism and exhibitionism can be described as a scenario of a two-sided market (Armstrong, 2006).

Second, with respect to the gratifications, we have advanced the understanding of motivation and gratifications related to SNSs use (Antheunis et al., 2010; Panek et al., 2013; Ross et al., 2009; Smock et al., 2011; Xu et al., 2012) by introducing and empirically testing voyeurism and exhibitionism as outcomes prosuming a SNS. Considering that particularly the voyeuristic aspects of SNS use have thus far remained an uncharted territory, our study points out to a new source of value from SNS use. In addition, we have deepened the conceptual understanding of exhibitionism related to SNS use. In particular, our operationalization of exhibitionism extends the measurement beyond the somewhat simplistic motivation employed in prior studies (Hollenbaugh & Ferris, 2014; Wang & Stefanone, 2013).

6.3   Implications for practice

The operators of SNSs have paid considerable attention to introducing features that facilitate self-disclosure and hence exhibitionism. Due to ethical considerations, we are not comfortable with explicitly recommending service provider to add voyeuristic features. However, the number of features developed deliberately to satisfy voyeuristic needs is limited compared to the exhibitionistic ones. Since SNSs resemble two sided markets in that the exhibitionistic value is dependent on voyeurs and voyeuristic value on exhibitionists, we argue that voyeuristic users remain an underserved segment in the SNS business. To this end, Facebook has recently introduced the Graph Search feature that allows searching users with specific interests or places that one's friends visit. Taken together, we recommend SNS operators paying increasing attention to the balance between exhibitionistic and voyeuristic features and content.

The voyeuristic users may not contribute to the content production but still actively use the service to obtain information. Thus, from SNS operators' perspective voyeurists and exhibitionists are equally valuable as potential targets for advertising. In fact, SNS operators could investigate whether the responses to advertising differ between voyeuristic and exhibitionistic users.

Last, making voyeurism and exhibitionism more transparent could potentially mitigate their possible negative consequences. Consequently, we suggest SNSs operators to offer the users information about other users viewing their profile.

6.4   Limitations & future research

This study has several limitations. At the same time however, the limitations could serve as avenues for further research. First, the data was collected exclusively from Facebook users, only from one country and from a student population. A broader data collection would thus offer more generalizable findings. In addition, the research design was cross-sectional. Hence, we refrain from making causal inferences based on this study. To overcome this limitation, future research should employ a longitudinal design.

Second, we relied on self-reported measures and focused only two aspects of SNS use. Future research could broaden the conceptualization of use (Burton-Jones & Straub, 2006) by e.g. accommodating the feature use aspect (Jasperson et al., 2005; Limayem et al., 2007) as well as obtain more objective measures of use instead of self-reported data.

Third, we placed content production and content consumptions as antecedents of exhibitionism and voyeurism, respectively in this study. However, in addition to these behavioural variables, exhibitionism and voyeurism and presumably affected by, and lead to, a number of other behavioural as well as psychological factors such as personality traits (Ross et al., 2009; Ryan & Xenos, 2011) or addiction (Turel et al., 2011). Hence, we suggest further research with a broader focus.

Fourth, due to space limitations, we did not examine the differences and similarities between voyeurists and exhibitionists. Future research could differentiate between voyeurists and exhibitionists to detect how the gratifications and usage patterns differ between the groups.

Fifth and finally, one's activities in SNSs are not isolated from other ways of communicating and interacting with other people. Further studies could aim at examining connections between SNS use and social interactions in other online channels such as microblogs (Twitter), content sharing (Pinterest), but also the offline-online interactions.

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