SOCIAL NETWORK PROFILES AS INFORMATION SOURCES FOR

ADOLESCENTS' OFFLINE RELATIONS

(Student Paper)

ABSTRACT

This paper presents the results of a study concerning the use of profile pages by adolescents to get to know more about offline friends and acquaintances. Previous research has indicated that social network sites are used to gather information on new online contacts. However, several studies have demonstrated a substantial overlap between offline and online social networks. Hence, we question whether online profiles are meaningful in gathering information on these 'offline' friends and acquaintances. The results indicate that the combination of passive uncertainty reduction (monitoring a profile) and interactive uncertainty reduction (communication through a profile) explains certainty about both friends and acquaintances. Second, it shows that the results of online uncertainty reduction positively affect self-disclosure, which is imperative in building a solid friend relation. Furthermore, we find that uncertainty reduction strategies positively mediate the effect of social anxiety on the level of certainty about friends.

INTRODUCTION

Social network sites (SNS) serve as rich sources of information. Through various kinds of content such as text and audiovisual materials, a myriad of particulars are disclosed (Liu, 2007; Livingstone, 2008). Even more, this information is suggested to be fairly accurate. For example, in a recent study, independent raters were able to accurately predict Facebook profile owners' personality traits (Back, et al., 2010). Moreover, uses-and-gratifications studies on SNS engagement have indicated that besides a strong social motive, information seeking and surveillance function as major attractors (Bumgarner, 2007; Park, Kee, & Valenzuela, 2009; Raacke & Bonds-Raacke, 2008). Also, research has pointed out that various strategies of uncertainty reduction are used to gather information on new acquaintances met online (Antheunis, Valkenburg, & Peter, 2010).

Yet, several studies have demonstrated a substantial overlap between offline and online social networks (Ellison, Steinfield, & Lampe, 2007; Subrahmanyam, Reich, Waechter, & Espinoza, 2008). This raises questions about the degree in which SNS are used to acquire information on relations nested within the offline network. In this article, we question whether adolescents get to know their offline social relations better through their profile pages. Our central thesis is that adolescents successfully acquire additional information on both their friends and acquaintances through their respective social network profiles. It is hypothesized that this information has a positive effect on the relationship formation process because a higher level of certainty provokes more self-disclosure, leading to a comfortable context of mutual information sharing. Moreover, we expect that these effects are stronger for acquaintances than for close friends. This would imply that SNS are beneficial in expanding and strengthening the existing social network. However, we propose

that when adolescents have higher levels of social anxiety, they tend to benefit more from SNS tot get closer with their friends.

Relations in adolescence

The specific choice for adolescents in this study has a twofold reason. First of all, SNS are anchored within youth culture, being actively used for self-representation and regular communication (Pfeil, Arjan, & Zaphiris, 2009). Second, the formation of intimate, dyadic and clique relationships with peers is a fundamental developmental task in adolescence. Friendships offer valuable emotional and social support, comprise important sources of peer influence and afford a socialization context to acquire essential social skills (Poulin & Chan, 2010). Still, peer influence is not limited to friends. Crowds, which are mainly deemed large, weakly linked, reputational and stereotypical collections of peers, also play an important role (Cross & Fletcher, 2009). They are suggested to channel and structure social interactions and foster opportunities to extend beyond the immediate circle and to form new social associations (Giodano, 2003). As such, the opportunity emerges to form more intensive relationships with acquaintances that might become friends over time. Both the centrality of SNS in adolescents' lives and the importance of forming successful peer relations render the population of adolescents especially interesting.

Acquiring information

Information about others is a perquisite in forming and maintaining a relationship (Knobloch & Solomon, 2006). An influential perspective on interpersonal information acquisition is the Uncertainty Reduction Theory (URT), originally proposed by Berger and Calabrese (1975). It postulates that people are concerned with reducing uncertainty about others in order to predict their behavior. To do so, three strategies are used: (a) passive strategies, such as non-intrusive observation of the target, (b) active strategies, such as

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inquiring others about the target person and (c) interactive strategies, which involves direct communication with the target.

Previous research has indicated that young people are prone to employ online channels (including SNS) to gather information on a variety of relatively close relations such as classmates, friends and best friends (Westerman, Van Der Heide, Klein, & Walther, 2008). Recently however, URT has been directly tested in the context of an SNS (Antheunis, et al., 2010). It was found that, in contrast to active strategies, passive and interactive strategies are quite frequently used to gather information on new online acquaintances. Moreover, both strategies appear to be substantially correlated. In their further analysis, Antheunis and colleagues (2010) computed a path model that shows how interactive strategies mildly explain the level of uncertainty of the target, which in part affects social attraction to the target. Yet, the question remains whether friends' and acquaintances' profile pages also afford the gathering of new information. Because of adolescents' wide appropriation of these sites and the considerable amount of information they accumulate, we hypothesize they actually do. In our research, we focus on both passive and interactive URS because both have a direct link with the target's profile. The former involves gathering information by browsing the profile, checking status updates, looking at pictures, etc. In turn, the latter involves the use of the communication tools that profiles are usually interspersed with (e.g. public and private messages, instant messaging). As active URS involve a third party and this extend beyond the dyadic relationship and - most important - do not necessarily involve the target's profile page, they are not included in the present study. Therefore, from now on, we refer to passive and interactive URS as 'online uncertainty reduction'. This leads to a first hypothesis:

H1a: Online uncertainty reduction on SNS affects the level of uncertainty about both friends and acquaintances

Still, as mentioned, friend relations are by definition more intense than those with acquaintances. It is therefore very unlikely that SNS will afford the same kind of novel information. Hence, we expand the first hypothesis:

H1b: The effect of URS on SNS will be stronger for acquaintances than for friends.

Relation intimacy

An interpersonal relationship, especially in case of friends, is fueled by a substantial amount of intimacy (Bauminger, Finzi-Dottan, Chason, & Har-Even, 2008). This is usually described as a feeling of closeness and the openness in sharing cognitions and emotions (Harvey & Omarzu, 1997). Meta-analytic evidence points out that disclosure by another is associated with an increased liking of the discloser (Collins & Miller, 1994). On the other hand, relations - especially with friends - require an imperative degree of reciprocity (Rubin, Bukowski, & Parker, 1998). In other words, the more someone allows us to know about him or her, the more reliable our appraisal of that specific person will be. This in turn incites to disclose information about our self. As previously argued, we at least to some extent consider SNS as informative for social relations. Consequently, we propose a second hypothesis:

H2: Employing URS on SNS affects self-disclosure, which is however mediated by the effectiveness of these strategies

Social anxiety

An important factor when studying computer-mediated communication is the degree of social anxiety. This refers to anxiety about social situations and fear of negative evaluation by peers and potential embarrassment (Greca & Lopez, 1997). Research concerning friendship development has shown that adolescents who have low levels of social anxiety in the offline world, use online platforms such as social network sites as an extension to offline communication and therefore expand their friendships and maintain their current ones

(Mikami, Szwedo, Allen, Evans, & Hare, 2010). This however does not imply that highly anxious adolescents communicate less and therefore get socially isolated. More introverted adolescents tend to compensate their lack of social skills in the offline world by communicating more frequently on online platforms. They too will self-disclose, resulting in more friendships of higher quality (Valkenburg, Peter, & Schouten, 2005). Still, while adolescents low in social anxiety usually have solid networks of relatively close friends, they tend to use SNS to expand their networks with new contacts (Schneider, 2009). Therefore, we put forward the following hypotheses:

H3a: In case of friends, social anxiety is positively associated with the use of URS strategies, which mediates the effect of social anxiety on the level of certainty

H3b: In case of acquaintances, social anxiety is negatively associated with the use of URS strategies, which mediates the effect of social anxiety on the level of certainty

METHODOLOGY

Sampling procedure

Our study took place in Flanders, the Northern region of Belgium. A sample of 352 adolescents took part in our study (M_{age} = 16.44, SD = 1.39; 30% male, 70% female). This gender imbalance was corrected with a post hoc weighting procedure. To gather the sample, three schools agreed to participate in our study. These schools were carefully selected, as to assure an equal spread of education types. In these schools, randomly chosen class groups filled out paper and pencil questionnaires. As such, a self-selection bias was avoided. Four respondents indicating not to use any SNS were excluded from this study.

Measures

Online uncertainty reduction assessed the use of passive and interactive uncertainty reduction strategies to gather information on friends and acquaintances. It was measured with

a seven-item instrument, adapted from previous research, that taps into the kind of information that is sought (Antheunis, et al., 2010). For each URS, separate measures were obtained for friends and acquaintances. The respondents were asked to rate whether they (a*) monitor their friends'* [or acquaintances'] *profiles...* and (b) *engage in conversation on SNS with friends* [or acquaintances] *through chat and public/private messages...* to get to know more about the target's character, hobbies, personal affairs, opinions, feelings, family situation and current occupation. Each item was rated on a seven-point scale ranging from 'does not apply' to 'strongly applies'. All four measures yield satisfactory α-values, ranging from .87 to .99.

Level of certainty was measured for both friends (α = .76) and acquaintances (α = .77). A five-item measure was drawn from Clatterbuck (1979). Sample items are *'I understand these persons well'* and *'I can predict how these persons will behave'*. The items were rated on a seven-point Likert scale, ranging from 'totally disagree' to 'totally agree'.

Self-disclosure to friends (α = .75) and acquaintances (α = .73) was measured by a five-item measure obtained from Parks & Floyd (1996). Sample items are *'I usually tell these persons how I feel'* and *'I tell these persons things about myself they cannot get from any other source'*. The items were rated on a seven-point Likert scale, ranging from 'totally disagree' to 'totally agree'.

Social anxiety was measured with the Social Interaction Anxiety Scale (SIAS, α = .89) (Mattick & Christopher, 1998). Sample items are *'I have difficulty talking with other people'* and *'I am nervous mixing with people I don't know well'*.
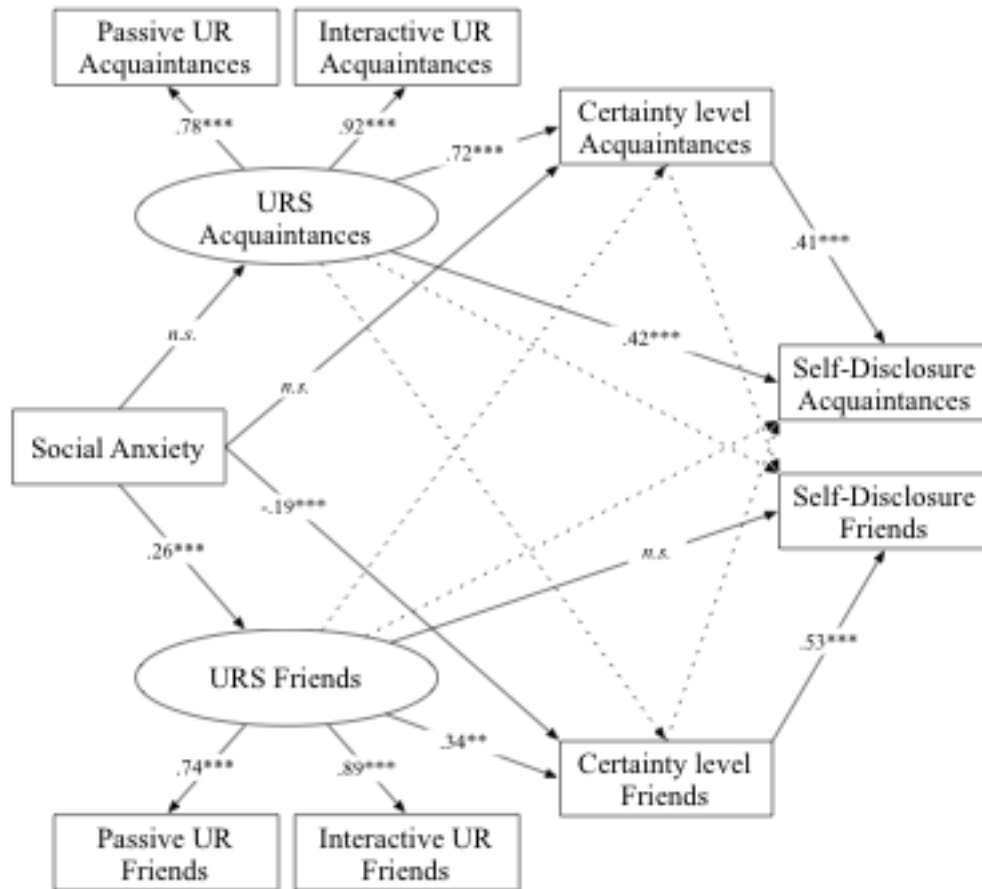
RESULTS

In order to test for the proposed hypotheses, the outlined paths are specified in a structural equation model ran on the weighted covariance matrix with an equal gender distribution (Figure 1). This model simultaneously incorporates measures of acquaintances and friends. As such, cross-effects are implicitly modeled to correct for the methodological pitfall of auto-correlation (see dotted lines in Figure 1). Moreover, parallel measures' error terms were allowed to correlate, as it is very likely that mutual factors explain additional variance. The model yields an acceptable goodness-of-fit ($\chi^2(11) = 25.11$, $p < .05$, TLI = .96, CFI = .99, RMSEA = .06 CI_{90} .03, .09, $p_{close} = .26$).

Figure 1

*Specified structural equation model with hypothesized paths as solid lines and auto-correlation corrections as dotted lines. * p < .05, ** p < .005, *** p < .001. The model's variables' correlation matrix is included in the appendix section*

The results support hypothesis one's first part *(H1a)* as both paths from uncertainty reduction strategy usage demonstrate significant effects on the associated level of uncertainty. To test for *H1b*, both paths were constrained to equality in an additional model that fits significantly worse ($\Delta\chi^2(1) = 7.51, p < .05$). This indicates that the effect in case of acquaintances is significantly stronger than the one for friends, thus confirming *H1b*.

The second hypothesis *(H2)* predicted that URS indirectly affect self-disclosure through an increased level of certainty. In case of friends we indeed notice a full mediation, whereas for acquaintances, this mediation is only partial given both significant direct and indirect effects. Hence, this hypothesis is partially supported.

Finally, the third hypothesis' first part *(H3a)* is confirmed as URS indeed positively mediates that effect of social anxiety on the certainty level of friends. However, there are no

effects of social anxiety on the employment of URS and the certainty level for acquaintances, this disconfirming *H3b*.

Table 1 recapitulates the hypotheses and the results.

Table 1

Hypotheses overview

Hypothesis	Evidence
H1a: Online uncertainty reduction on SNS affects the level of uncertainty about both friends and acquaintances	Yes
H1b: The effect of URS on SNS will be stronger for acquaintances than for friends.	Yes
H2: Employing URS on SNS affects self-disclosure, which is however mediated by the effectiveness of these strategies	Partial
H3a: In case of friends, social anxiety is positively associated with the use of URS strategies, which mediates the effect of social anxiety on the level of certainty	Yes
H3b: In case of acquaintances, social anxiety is negatively associated with the use of URS strategies, which mediates the effect of social anxiety on the level of certainty	No

DISCUSSION

This study's results indicate that SNS are valuable sources of information for offline relations. By drawing upon their contents, adolescents get to know more about their many distant acquaintances and even their much closer friends with whom they meet on a regular basis. This actually emphasizes the important position these sites have established in adolescents' every day lives. Moreover, given the stronger effects for acquaintances, indicating that adolescents get to know much more about them, the results suggest that SNS play a valuable role at the onset of establishing or even reinforcing solid friend relations. That

is, they help to reduce entropy their mutual interaction, affording a more suitable context to engage in self-disclosure and hence to invest in the relationship.

Not surprisingly, the amount of novel information on friends obtained from SNS is much lower. However, when we take social anxiety into account, it appears SNS serve a very important function. As to be expected, we found a negative direct effect of anxiety on the level of certainty about friends. Teenagers characterized by a high degree of social anxiety often experience problems to engage in interaction, which impairs their ability to gain rich information directly from the source. As such, it is remarkable that there is a positive mediation of the aforementioned effect by uncertainty reduction strategies on SNS. This implies that these social Internet applications function as a bypass and aid to create a more comfortable context to engage in self-disclosure. This kind of investment, which is especially difficult for the socially anxious, in turn offers a better position to deepen and strengthen friend relations. Still, we found no similar effects for acquaintances, indicating there is no link between social anxiety and the use of SNS for uncertainty reduction on acquaintances.

In conclusion, this study sheds light on the dynamics of SNS and their consequences for everyday life communication. It demonstrates how it becomes increasingly difficult to conceive of the online and offline as a rigid dichotomy. What happens online has implications for the offline and vice versa. However, this study needs further verification in other studies in order to further demonstrate the validity of its results. Therefore, we encourage replications and extensions. One possible track of improvement is to seek a more fine-grained understanding of what kind of information is exactly obtained from SNS and how it is used in social interaction.

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Appendix

Table 2

Model's weighted zero-order Pearson correlation matrix, including means and standard deviations. All correlations with p > .05 are set in

italics.

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1. Passive UR Friends	-								
2. Interactive UR Friends	.67	-							
3. Self-disclosure Friends	.12	.18	-						
4. Certainty Level Friends	.18	.26	.53	-					
5. Passive UR Acquaintances	.59	.55	.10	.20	-				
6. Interactive UR Acquaintances	.49	.46	*.08*	.10	.70	-			
7. Self-disclosure Acquaintances	.13	.15	-.06	-.13	.30	.44	-		
8. Certainty Level Acquaintances	.17	.15	*-.01*	.12	.36	.43	.55	-	
9. Social Anxiety	.26	.22	-.12	-.10	.15	.17	*-.02*	*-.07*	-
M	3.35	3.50	5.34	5.08	2.98	2.67	3.09	3.22	65.45
SD	1.33	1.41	1.04	0.97	1.36	1.26	1.10	1.12	15.96