The predictors of parental privacy invasion with regard to adolescents' online behavior

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Abstract

The focus of this study was on examining three predictors of parental monitoring in adolescents' online behavior. Parental motivations, the parenting characteristics control and warmth, and parental comfort with social media technologies were investigated as possible predictors. Internet survey data from 73 Dutch parents showed that some specific parental motivations and both of the parenting characteristics were substantial predictors for parental privacy invasion when it comes to adolescents' online behavior. Results are discussed in terms of Petronio's (1994) distinction of parental monitoring (direct and subversive monitoring), the social domain theory (Smetana et al., 2006) and the categorization of parenting characteristics according to Baumrind (1991). Based on these new insights, appropriate interventions can be implemented to evoke consciousness among parents in their monitoring behaviors, what in turn makes it possible to find a good balance between monitoring and maintaining the adolescents' privacy.

Keywords: privacy invasion, parents, adolescents, monitoring, motivations, social media, parenting, comfort

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For the current generation of adolescents it is hard to imagine experiencing life without forms of electronic communication, such as e-mail and text messaging, as well as communication-oriented Internet sites such as blogs and social networking (Subrahmanyam & Greenfield, 2008). In the Netherlands, 91% of the Internet users between 16 and 25 years make use of social networking sites (Plat, 2011). The Internet and social media (or social network sites), like Facebook, Hyves and Twitter, are used both as a basic tool for and a mirror of social interaction, personal identity, and network building among adolescents (Debatin, Horn, & Nughes, 2009; Subrahmanyam & Greenfield, 2008). However, given adolescents' increasing use of the Internet and social media, there is much concern among parents about its impact on their children's development (Liau, Khoo, & Ang, 2008; Lenhart & Madden, 2007; Youn, 2008). As a result, parents try to set rules and monitor the online behavior, which in turn feels invasive to the adolescents' privacy (Petronio, 1994). Feelings of privacy invasion can affect the welfare of adolescents negatively, in terms of internalizing symptoms (Hasebe, Nucci, & Nucci, 2004), poorer psychological adjustment (Waizenhofer, Jackson-Newsom, & Buchana, 2004), and it can also negatively affect the parent-child relationship (Petronio, 1994). To prevent these negative outcomes in the relationship between parent and child, it is important to understand why parents commit privacy invasion and whether there are other predictors of such behavior. Currently, research has not yet examined these predictors. Therefore, this study investigates the predictors of parental privacy invasion in adolescents' online behavior.

When the predictors of parental privacy invasion on their children's online behavior are known, it is possible to develop interventions and protect adolescents in their development. This study contains four aims to investigate. The first aim is to examine whether a distinction can be made in privacy invasive behavior of parents with regard to their adolescents' online behavior. The other aim is investigating three predictors with regard to adolescents' online behavior, namely parental motivations, parenting characteristics and parental comfort with social media technology.

Parental monitoring behaviors

During adolescence, individuals identify boundaries around privacy to mark their ownership of space, possessions and information. This is especially substantial for adolescents in their process of individuation (Kerr & Stattin, 2000; Hawk, Hale, Raaijmakers & Meeuw, 2008; Petronio, 1994) because during this process adolescents draw new boundary lines (Petronio, 1994; Petronio & Caughlin, 2006). Privacy invasion

often occurs when the boundary definition between parents and children is dissimilar (Petronio, 1994). Following Petronio (1994), there are forms of privacy invasive behavior, direct monitoring behaviors and subversive monitoring behaviors. Direct monitoring behaviors are overt and visible for the child. Examples of direct monitoring behaviors are asking for personal information, making unsolicited remarks about the adolescent's personal life, and giving advice. Subversive monitoring behaviors are covert and more secret from the child. It contains monitoring behaviors such as going through personal belongings without permission, listening to a telephone conversation on extension without permission, and eavesdropping on conversations (Petronio, 1994).

Adolescents experience these monitoring behaviors as privacy invasive (Petronio, 1994). It is not clear, however, whether parents use the same behaviors in monitoring the online behavior of adolescents. Therefore, we hypothesize that, also in monitoring online behavior, there is a same distinction between direct and subversive monitoring behaviors as described by Petronio (1994).

Parental motivations for privacy invasion

The second aim of this study is investigating three predictors with regard to parents monitoring adolescents' online behavior. The first predictor is about parental motivations. A motivation refers to the dynamics of behavior, which involves the needs, desires, and ambitions in life. Motivations drive parents in their monitoring behavior (Gollowitzer, 1996). However, it is not clear in the literature which motivations exactly determine parents' monitoring behavior adolescent's online behavior. Therefore, this study examines which parental motivations most strongly predict privacy invasive monitoring behaviors. The social domain perspective is utilized as a conceptual framework (Smetana, 1999; Smetana, Villalobos, Tasopoulos-Chan, Gettman, & Campione-Barr, 2009).

According to Smetana and colleagues (2009), the social domain theory focuses on children's active construction of knowledge from varied social experiences and different interaction partners, including parents as well as peers. The theory distinguishes among the *prudential issues* (pertaining to adolescents' health, safety, comfort, or harm to the self, including behaviors like smoking cigarettes and illicit drug and alcohol use), *moral issues* (pertaining to others' welfare, fairness, or rights), *conventional issues* (defined as arbitrary, agreed on uniformities like manners and etiquette that structure interactions in different social systems), *personal issues* (pertaining to control over one's body, privacy, and preferences and choices about appearances, activities and friendship choices), and *multifaceted issues* (which overlap the personal and either the conventional or prudential issues; Smetana et al., 2009). Previous research has indicated that adolescents and parents agree that parents should have legitimate authority over moral issues,

conventional issues, and prudential issues. However, they disagree about whether parents legitimately can control personal, and to some extent, multifaceted issues (Smetana et al., 2006).

Parents have different motivations for their monitoring behaviors due to their concerns about the online behavior of their children (Dehue, Bolman, & Vollink, 2008; Subrahmanyam & Greenfield, 2008; Youn, 2008). Based on scientific literature, there are three parental concerns regarding Internet use of adolescents, which include prudential issues and one moral issue. The first concern is about online privacy of their children. According to the social domain theory, this is a prudential issue (Smetana et al., 2006). Many parents believe that adolescents are not as careful as they should be with disclosing personal information online (Lenhart & Madden, 2007; Youn, 2008). Another prudential issue refers to parents concerns about the extent to which children are exposed to sexual content, including pornography, sexual photos, movies, and advertising (Greenfield & Yan, 2006; Liau, Khoo, & Ang, 2008). Many children between ages 8 and 16 have viewed pornography on the Internet (Subrahmanyam & Greenfield, 2008). Such experiences by adolescents who have not yet developed a full maturity could pose negative impacts on adolescent development, and could potentially manifest in their social interactions with peers, their sexual activity, and their emotional development (Greenfield & Yan, 2006; Subrahmanyam & Greenfield, 2008). The last parental concern is a moral issue about cyberbullying. Recently, a number of studies revealed that among children between 10 and 19 years old, 4-15% bullied, the percentage increasing with increasing age, and three to twenty-five percent had been bullied at least once via the Internet (Dehue, Bolman, & Vollink, 2008; Van de Bosch & Van Cleemput, 2008). The more parents hear about this new trend on the Internet, the more they want to protect their children from it (Dehue, Bolman, & Vollink, 2008).

As already mentioned above, parents and adolescents agree that parents should have legitimate authority over moral, conventional, and prudential issues. Therefore, we hypothesize that the attitudes toward direct monitoring behaviors are positively related, and that the attitudes toward subversive monitoring behaviors are negatively related to prudential, moral and conventional issues. On the other hand, parents and adolescents disagree about parental monitoring in the multifaceted issues. We hypothesize that the attitudes toward direct monitoring behaviors are negatively related, and that the attitudes toward subversive monitoring behaviors are positively related to multifaceted issues.

Parenting characteristics and privacy invasion

Besides several parental motivations, parenting style could be an predictor for parental privacy invasion in adolescents' online behavior. A balance between parents' authority

and children's autonomy is necessary for effective parenting. The amount of autonomy parents actually grant their child depends on their general style of parenting (Smetana, Crean, & Campione-Barr, 2005). A mixture of parenting characteristics result in different parenting styles. However, little research examined this predictor in parental privacy invasion.

A common parenting style categorization is created fifty years ago by Diana Baumrind (Baumrind, 1991). She suggested that a parenting style is used to capture normal variations in parents' attempts to control and socialize their children. Normal parenting revolves around issues of *control.* Parental control refers to the claims parents make on their children to become integrated into society by maturity demands, behavior regulation (behavioral control) and the supervision of the child's activities (monitoring). Maccoby and Martin (1983) identified a second dimension of parenting behavior, parental *warmth.* This element is recognized by Baumrind and she consequently states that warmth refers to "the extent to which parents intentionally foster individuality, self-regulation by being attuned, supportive, and acquiescent to children's special needs and demands" (Baumrind, 1991).

In relation to regulating adolescents' online behavior, parental control is about setting rules based on the time, frequency and the location of Internet use. Parents who are highly controlling remain physically present during Internet usage of the child. Others require password information or demand that they become Facebook friends with their child (Yardi & Bruckman, 2011). Controlling behavior is also checking browser history, installing control software, or sending the child's email forward to their own inbox, with or without the child's permission (Wang, 2005). Parental warmth refers to creating a safe environment where the child can raise questions about Internet usage and talk about potential difficulties or personal information. Parents use an understanding and supportive attitude towards their child and, for example, they recommend specific websites while surfing together on the Internet (Valcke et al., 2010). Current studies have rarely examined whether the parenting characteristics of control and warmth are a predictor for the way parents monitor their child's online behavior.

Looking at the definition of privacy invasion, it might be that parental control, using strict guidelines and demands, is associated with both direct and subversive monitoring behaviors. The parent likes to stay informed about the child's online activities, with or without the child's cooperation. In addition, when parents create an open atmosphere and warmth is their key characteristic, subversive monitoring behaviors are not used a lot. Besides, it is also possible that direct monitoring will only occur in dialogue. Due to communication and trust, the parent can obtain relevant information. These assumptions can be translated into two hypotheses. Firstly, parents accept both direct and subversive monitoring behaviors more when they use more parental control.

The second hypothesis states that parents accept direct monitoring behaviors more and subversive monitoring behaviors less, when they use more parental warmth.

Parental comfort with social media and privacy invasion

The last possible predictor in this study focuses on the parental comfort with social media technology. Media scholars have long been interested in the way parents oversee media use by their children (Livingstone, 2007). For many adolescents, it is largely taken for granted that one must be connected and available to peers at all times through social media sites (Lenhart & Madden, 2007). Parents, on the other hand, use the Internet and social media sites less often. Yet, parents' use of social media is increased and nowadays at least half of the adults in the age of 25-55 years are active on social media sites (Plat, 2011). This increase can be confirmed by the fact that, in the last few years, there has been an enormous growth in the Internet use among older generations. The highest growth is among adults in the age of 50 and older. Possible reasons why social media use increased is the reconnection with people from their past or provision of a powerful network to embark on a new career (Zickuhr, 2010). However, social media usages among parents could also bridge generational gaps, namely by sharing online information across different generations divides (Madden, 2010).

Although the Internet use is increased among adults, one thing seems to remain the same: young people experience the technology in their lives much differently than their parents do, and this can be a source of tension in family life (Wang, Bianchi, & Raley, 2005). Based on these findings, it can be assumed that there is a generation gap between parent's and adolescent's use of social media sites (Kvasny, 2006). This generation gap is maintained by the amount of digital expertise, which includes experiences and knowledge about digital media (Ribak, 2001). Subsequently, this influences the amount of comfort a person feels in using the Internet and social media.

Parents believe that children need the Internet and social media for academic purposes and their individuation process. On the other hand, greater Internet usage raises parental concerns about the possible online dangers as well as negative physical and psychological effects (Wang, Bianchi, & Raley, 2005). Concerns about the effects of the Internet on children are similar to those expressed about other media, such as television. The majority of parents report that children are subject to family rules about television. Unlike television, where parents and children are equally skilled in using the technology, social media presents new challenges to parent's ability to supervise their children's usage. In fact, a study found that 64% of online youth say they know more about the technology than their parents, and 66% of parents agree (Wang, Bianchi, & Raley, 2005). This indicates that parents are less familiar and experienced with the use of social media sites and have therefore less comfort with these technologies.

Parents adopt different strategies for dealing with this gap in knowledge and experience. Parents indicate they use several methods in monitoring their child, namely they check what their child posted online and which websites their child visited (Rideout, 2007). The majority of parents (87%) indicate that they check the list of friends in the social network pages of their child and 82% of the parents looks at their child's online profile.

Little is known about whether parental comfort with social media technologies is a predictor for parental privacy invasion in adolescents' online behavior. Research suggests that parents who are more comfortable with social media technology track their children's activities easily (Abril, 2007). These parents also discover personal information of the adolescent. This enables the adolescent to give the impression that their privacy is violated (Abril, 2007). This subversive behavior of privacy invasion might be characteristic for parents with more comfort with social media technologies. It is also stated that parents who are less comfortable set ineffective rules, which can be easily disabled by their children, or do not set rules at all (Çankaya & Odaba, 2009). To still monitor the adolescents' online behavior, these parents need to ask in a direct way what their child is doing online. Therefore, direct monitoring behaviors might be characteristic for parents with less comfort. In this study, we hypothesize that parental comfort with social media technology is positively related to subversive monitoring behaviors and negatively related to direct monitoring behaviors.

In sum, previous studies present some useful information about parental monitoring behaviors, motivations of parents for privacy invasion, the role of parenting characteristics and parental comfort with social media technologies. There is, however, no clear and well-founded information about how and why parents commit privacy invasion in their children's online behavior and whether parenting characteristics and parental comfort with social media technologies are possible predictors for privacy invasion of parents. In addressing these gaps in literature, we focus on parents with adolescents in the age between 14 and 17 years because they use social media, in particular, more than younger children (Plat, 2011).

Method

Participants

Participants consisted of 73 parents with children in the age of 14-17 years, selected from different parts in the Netherlands. It is, however, not known from which towns the participants came from, due to the use of an Internet questionnaire. Most parents (72.6%) had one child in the age of 14-17 years and the rest had two or more children in this age range. Most children (87.6%) in these families lived with both parents, with the rest of the sample (12.4%) being divided among other family structures (e.g., mother

only, mother and stepfather, etc.). Among the 60 participants (53 mothers and 20 fathers), everyone used the Internet and 57.5% of the parents and 93.2% of their children used social media. The educational level of the fathers and mothers could be differentiated as 24.7% low education, 56.2% middle education and 56.2% high education, respectively.

Measures

This study measured the predictors for the parental attitudes toward privacy invasion in children's online behavior. Four constructs were investigated among parents: parental attitudes toward monitoring behaviors (direct and subversive), parental motivations, parenting characteristics and parental comfort with social media technology. The questionnaire that was used to collect data is partly based on existing questionnaires and constructed by the researchers. The first part of the questionnaire contains background questions about the parent and child characteristics, including age of the children, education level of the parents, and family setting.

Frequency and type of social media use was measured with one novel scale to get a perspective on the social media use of parents and their view on the social media use of their children. This 'Social media-using scale' contained 8 items about parents' own use and 8 items about their children's social media use. There were 7 items with yes/no response options about their awareness of, their knowledge about and their usage of social media. An example of one item was: 'Do you know about the existence of Facebook?'. There was one item about frequency of use with 5 response options (*Never, 1-3 times a week, 3-6 times a week, 7-10 times a week, 10 or more times a week*). This item stated: 'How many times a week do you use social media sites?'.

Parental attitudes toward monitoring behaviors were measured with one novel scale, which was subdivided by direct and subversive monitoring behaviors, as inspired by Petronio (1994). The 10-item 'Monitoring scale' is a 5 point Likert scale with items ranging from 1 (*Totally disagree*) to 5 (*Totally agree*). Originally there were five items in the direct scale and five items in the subversive scale. However, the factor analysis in this study showed that eight items measured the attitudes toward direct monitoring, and two items measured the attitudes toward subversive monitoring behaviors. An example of an item that measured the attitudes toward direct monitoring behavior is: 'I find it important that parents are sitting next to the child when he/she is using social media'. An example of an item that measured the attitudes toward subversive monitoring behavior is: 'I find it important that parents check the websites children visited, without the child knowing about it'. The appearance of both monitoring behaviors can be determined. The overall reliability of this subscale is interpreted as very good, Cronbach's α = .87. The reliability of the eight items in the direct monitoring behavior subscale is also very good,

Cronbach's α = .86. For the subversive monitoring behavior subscale a correlation was calculated, because this subscale exist of two items, the correlation was interpreted as strong, $r(73)$ = .49, p < .01.

   Parental motivations were measured with a 30 item self-constructed subscale. This subscale contained motivations of four domains-specific issues, including moral, prudential, conventional, and multifaceted issues. The multifaceted issues contained two prudential-personal issues and a personal-conventional issue. Each item in this subscale had a statement about an issue, in which the parents could indicate which monitoring behaviors were OK to use in order to obtain information about these aspects of their children's' lives. The statement of the moral issue was about cyberbullying, namely: 'A parent is worried about the fact that his/her child is probably bullying another child on social media sites. Is it OK that the parent…'. The parents could then answer 5 items about direct and subversive monitoring behaviors, which of them where OK to use in order to obtain information. Examples of the monitoring behaviors were: asking the child (direct monitoring), looking on the social media sites of the child (subversive monitoring), checking the Internet sites on the computer after the child has been on it (subversive monitoring), watching the child when he/she is on the social media sites (direct monitoring) and asking the child if he/she can show the parents his/her social media sites (direct monitoring). The other issue-statements in the questionnaire were: 'A parent is worried about the personal information that the child presents on social media sites' (prudential issue), 'A parent is worried that the child is not following the rules about which music he/she listens on the social media sites' (conventional), 'A parent is worried about the opportunity that the child sees sexual sites' (multifaceted), 'A parent is curious about the friendships a child has on the social media sites' (multifaceted), and 'A parent has a feeling that the child is not always honest about what he/she is doing on social media sites' (multifaceted). The moral, prudential and conventional issues had all one issue-statement and were each measured through five items. The multifaceted issue, existing out of three issue-statements, was measured through fifteen items. A 5-point Likert scale was used, the items ranged from 1 (*Not OK*) to 5 (*OK*). By calculating mean scores for each domain-specific issue, it is determined which parental motivations most strongly predict parental attitudes toward monitoring behaviors. Based on the differences in the domain-specific issues, a Cronbach's Alpha was calculated for each issue. The overall reliabilities of this subscale were interpreted as acceptable. The Cronbach's Alpha of each issue in the subscale consisted out of .79 for the moral issue, .71 for the prudential issue, .80 for the conventional issue and .86 for the multifaceted issues.

   Parenting characteristics were measured by the 'Internet Parenting Style Instrument (IPSI)' of Valcke and colleagues (2010). This instrument reflects the parental

warmth and control variables and it is a 5-item Likert scale with 25 items ranging from 1 (*Never*) to 5 (*Always*). Parental control was studied through 11 items with statements about supervision, stopping Internet usage and Internet usage rules. An item-example is: 'I'm around when my child surfs on the Internet'. Parental warmth was studied through 14 items about communication and support. An item-example is: 'I explain Internet rules to my child'. The Internet parenting style questionnaire reflected a good reliability. Cronbach's alpha of the parental warmth subscale was .90. Cronbach's Alpha of the parental control subscale was .78.

Parental comfort with social media technology was measured by one novel scale. The scale existed out of 7 items, where a 5-point Likert scale was used, ranging from 1 (*Totally disagree*) to 5 (*Totally agree*). An example of an item is: 'I'm confident that I can control my personal information that I put on social media sites'. The reliability of this subscale is interpreted as good, Cronbach's α = .77.

Procedure

The participants in this study were recruited via the Internet. Through an advertisement on the site of the Open University of Amsterdam, many respondents contacted one of the researchers by e-mail. Other respondents out of the researchers' network were approached directly by e-mail and this caused a snowball effect. Overall, there were 73 parents that reacted on the advertisement and email solicitations. Researchers informed the parents about the research and gave instructions for the Internet questionnaire. The questionnaire took approximately 15 to 20 minutes. The respondents received an email with the link to the questionnaire and were asked to complete the questionnaire within a certain timeframe of two weeks. Further, there were no dropouts of respondents. After completing the study, participants were thanked for their participation and debriefed.

Statistical analyses

To test the aforementioned hypotheses, this study performed a factor analysis and several hierarchical regression analyses. Firstly, we examined the parental monitoring behaviors of privacy invasion. To investigate the operationalization of privacy invasion in two parental monitoring behaviors, direct and subversive, a factor analyses was performed. This statistical analysis established a two-factor structure for the parental monitoring behaviors, i.e. a two dimensionality of factors within the construct privacy invasion. Based on this distinction, further hypotheses could be examined.

Six hierarchical regression analyses were run to examine the effects of 1) parental motivations, 2) parenting characteristics and 3) parental comfort with social media technologies on the attitudes toward direct and subversive monitoring behavior as the dependent variable. Each predictor contained two analyses, one for the relation with

direct- and one for the relation with subversive monitoring behaviors. Parent's gender was entered in the first block to control for their effects.

Results

The descriptive statistics of the demographic variables can be viewed in Table 1. Several analyses were conducted to investigate whether the characteristics of the parents and their family situation was related to the attitudes toward direct and subversive parental monitoring behaviors. For the variable family composition, a one-way ANOVA showed a significant effect for the attitudes toward both direct monitoring behaviors, $F(1, 70) = 7.93$, p < .05 and subversive monitoring behaviors, $F(1, 70) = 5.91$, $p < .05$. This indicated that there was a significant difference between the two-parent family condition (M = 2.82, SD = .72) and the one-parent family condition, divorced or widower (M = 1.96, SD = .75). There were no significant differences between fathers and mothers in their attitudes toward direct or subversive monitoring behaviors, nor were differences found between the education levels (MBO, HBO and WO) of parents.

There were no significant differences found between Facebook, Hyves and Twitter for frequency or type of use among parents and children. Most parents were not very active users, namely 38% of the parents were a Facebook member, 19% were Hyves members and 27% uses Twitter. About 43% of the parents report that they never use their accounts and 23% uses their social media sites once or twice in the week. They report that their children use the social media sites much more often, 47,9% uses the social media ten times or more during the week.

Furthermore, all measures were checked for univariate normality with skewness < 2 and kurtosis <7 before conducting the main analyses. The data was screened for univariate outliers. There were no missing data. The minimum amount of data for factor analysis was satisfied, with a final sample size of 73 (20 fathers and 53 mothers).

Parental attitudes toward monitoring behaviors

The first hypothesis, which proposed a distinction in the attitudes toward parental monitoring behaviors (direct and subversive monitoring behaviors), was tested through a principle components analysis. The initial values showed that the first factor explained 45% of the variance, the second factor 11% of the variance, and a third factor 9% of the variance. The fourth and fifth factors explained both 7%. Three, four and five factor solutions were examined, using both varimax and oblimin rotations of the factor loading matrix. The two factor solution, which explained 56% of the variance, was preferred because of its previous theoretical support, the 'leveling off' of values on the scree plot after two factors, and the insufficient number of primary loadings and difficulty of interpreting the third, fourth and fifth factors. There was little difference between the

varimax and oblimin solutions, thus both solutions were examined in the subsequent analyses before deciding on an oblimin rotation for the final solution. An Oblimin rotation provided the best defined factor structure; all items had primary loadings over .4.

None of the items were eliminated because they all contributed to one of the factors and succeeded in meeting the criteria of having a primary factor loading of .4 or above. There was not a simple factor structure because there were double loadings. The rotated factor matrix and items are reported in Table 2. The factor loadings for each of the (5-item) scales are unusually high and reveal what appear to be two differentiated factors.

The first factor, labeled Direct Monitoring, had positive loadings from .57 to .78 on eight items. Scores on this factor indicated attitudes toward acceptance of behavior of parents in which they monitor the online behavior of their child in a direct way, such as asking personal information, watching the child during Internet use, or giving advice. The second factor, labeled Subversive Monitoring, had positive loadings of .42 and .76 on two items. The item with a factor loading of .42 (I think it is important that parents monitor the websites the child visited without the child knowing about it) loaded actually higher (.60) on the Direct Monitoring factor. However, based on the face-valid content and the fact that one item in a subscale is not acceptable, the decision was made to include this item in the Subversive Monitoring factor. Scores on the subversive factor reflected actions of parents in supervising their children's Internet websites and also asking brothers and sisters for more information.

Internal consistency for the direct monitoring factor was examined using Cronbach's alpha. The alpha was very good, Cronbach's α = .87. No substantial increases in alpha for the direct monitoring scale could have been achieved by eliminating items. The subversive monitoring factor consisted out of two items and therefore a Pearson correlation was examined. There was a strong correlation, $r(73)$ = .49, $p < .05$.

Overall, these analyses indicated that two distinct factors were underlying parental monitoring behaviors in the questionnaire, and that these factors were moderately internally consistent. An approximately normal distribution was evident for the composite score data in the current study, therefore the data were well suited for parametric statistical analyses. These results supported the hypothesized distinction between direct and subversive parental monitoring attitudes toward behaviors in social media use of adolescents.

Parental motivations in attitudes toward parental monitoring behavior
For the second variable 'parental motivations' (Hypothesis 2), we hypothesized that the attitudes toward direct monitoring behaviors are positively related, and that the attitudes toward subversive monitoring behaviors are negatively related to prudential, moral and

conventional issues. We hypothesized further that the attitudes toward direct monitoring behaviors are negatively related, and that the attitudes toward subversive monitoring behaviors are positively related to multifaceted issues. These hypotheses were tested through two hierarchical regression analyses. In the first hierarchical regression analysis the attitudes toward direct monitoring behaviors of parents were predicted by the parents' gender at Step 1, by the four issues at Step 2, and two-way interaction effects in Step 3. These results are displayed in Table 4. In the second hierarchical regression analysis the attitudes toward subversive monitoring behaviors of parents were predicted by the parents' gender at Step 1, by the four issues at Step 2, and two-way interaction effects in Step 3. These results are displayed in Table 5. The means, standard deviations, and correlations between the studied variables are displayed in Table 3.

Attitudes toward direct monitoring behaviors were examined in the first regression analysis, to see whether there was a relationship with the issues of parental motivations. There were mostly significant positive correlations between the attitudes toward parental monitoring behaviors and issues. The attitudes toward direct monitoring behaviors and the prudential issue, including disclosing personal information online by the child, had no significant correlation. The results of the first step of the regression analyses indicated that gender of parents was not predictive of parents' attitudes toward direct monitoring behaviors. However, the issues of parental motivations, entered as a second step, contributed significantly to the model, explaining an additional part of the variance in the attitudes toward direct monitoring behaviors, $\Delta R^2 = .25$, $F(4, 67) = 5.64$, $p = .00$. This analysis revealed a positive significant main effect of the multifaceted issue, $\beta = .42$, $t(72) = 2.19$, $p = .03$. This indicates that when parents have concerns about a multifaceted issue, they belief that direct monitoring behaviors are more appropriate to use. This finding was inconsistent with our hypothesis. In the third step, ten interactions were calculated. This model did not explain a significant part of the variance compared to model two.

Attitudes toward subversive monitoring behaviors were examined in the second regression analysis to see whether there was a relationship with the issues of parental motivations. There were mostly significant positive correlations between the attitudes toward parental monitoring behaviors and issues. The attitudes toward subversive monitoring behaviors and the conventional issue, including the child not obeying the rules about which music he/she listens on social media sites, had no significant correlations. The results of the first step of the regression analyses indicated that gender of parents did not contribute significantly to parents' attitudes toward subversive monitoring behaviors. However, the issues of parental motivations, entered as a second step, contributed significantly to the model, explaining an additional part of the variance in the attitudes toward subversive monitoring behaviors, $\Delta R^2 = .26$, $F(4, 67) = 5.86$, $p =$

.01. This analysis revealed a positive significant main effect of the multifaceted issue, β = .62, $t(72)$ = 3.21, p = .00. The more a parent was concerned about the multifaceted issue, the more the parent believed that it was justified to use subversive monitoring behaviors. Attitudes toward subversive monitoring behaviors was negatively related to the conventional issue, β = -.31, $t(72)$ = -2.07, p = .04. This meant that the more a parent was concerned about the conventional issue the less the parent believed it was justified to use subversive monitoring behaviors. In the third step again ten interactions were calculated. This model did not explain a significant part of the variance compared to model two.

Overall, the attitudes toward direct and subversive monitoring behaviors were more accepted by parents when they were concerned about multifaceted issues. When parents were concerned about a conventional issue, they believed it was less justified to use subversive monitoring behaviors. The hypothesis, whether direct monitoring behaviors were more, and subversive monitoring behaviors were less accepted by parents when they are concerned about moral, prudential and conventional issues, was therefore rejected. However, the hypothesis, whether direct monitoring behaviors were less, and subversive monitoring behaviors were more accepted by parents when they are concerned about multifaceted issues, was partly retained.

Parenting characteristics in attitudes toward parental monitoring behavior
For the variable 'parenting characteristics' (Hypothesis 3), we hypothesized that direct monitoring behaviors were more accepted by parents who use more parental control. Further, subversive monitoring behaviors were less accepted by parents who use more parental warmth. These predictions were tested through two hierarchical regression analyses. The first regression analysis examined whether the attitudes toward direct monitoring behaviors of parents were predicted by the parents' gender at Step 1, by parenting characteristics (parental warmth and parental control) at Step 2 and two-way interaction effects between gender and parenting characteristics in Step 3. The results are displayed in Table 6. The second hierarchical regression examined the same only for subversive monitoring behaviors, these results are displayed in Table 7.

Attitudes toward direct monitoring behaviors and the parenting characteristics warmth and control were examined in a third regression analyses. Only the characteristic parental control correlated positively and significantly on both direct and subversive monitoring behaviors. This indicates that the higher parents score on parental control, the higher they score on the attitudes toward direct and subversive monitoring behaviors. The results of the first step showed that gender of parents did not contribute significantly to parents' attitudes toward direct monitoring behaviors. However, parental control and parental warmth, entered as a second step, contributed significantly to the

model, explaining a significant proportion of the variance in the attitudes toward direct monitoring behaviors, ΔR^2 = .51, $F(2, 69)$ = 36.66, p = .001. This step revealed a positive significant main effect of the parental control characteristic, β = **.82,** $t(72)$ = 7.29, p = .00. This indicated that the higher parents score on parental control, the more the parents believes it is justified to use direct monitoring behaviors. The parental warmth characteristic wasn't a significant predictor for direct monitoring behaviors. In the third step, the interaction between parental control and parental warmth did not contribute significantly to the model.

Attitudes toward subversive monitoring behaviors and the parenting characteristics control and warmth were examined in a regression analysis to see whether there is a relationship between these variables. The results of the first step of the regression analyses indicated that gender did not contribute significantly to parents' attitudes toward subversive monitoring behaviors. However, parental control and parental warmth, entered as a second step, contributed significantly to the model, explaining an significant proportion of the variance in the attitudes toward subversive monitoring behaviors, ΔR^2 = .17, $F(2, 69)$ = 7.03, p = .00. This step revealed a positive significant main effect of the parental control characteristic, β = **.55,** $t(72)$ = 3.74, p = .001. When parents scored high on control, they believed it was more justified to use subversive monitoring behaviors**.** Further, there was a negative significant effect of the **parental warmth characteristic,** β = -.34, $t(72)$ = -2.29, p = .03. This means that when parents scored high on warmth, they believed it was less justified to use subversive monitoring behaviors. The interaction between gender and the parenting characteristics and between the both parenting characteristics, warmth and control, included in the third step, was not a significant contribution to the model.

In summary, parental control and the attitudes toward direct and subversive monitoring behaviors were positively related. Therefore the hypothesis, whether direct and subversive monitoring behaviors are more accepted by parents who use predominantly parental control, was retained. Parental warmth was only negatively related to the attitudes toward subversive monitoring behaviors. No relationship was found with direct monitoring behaviors. Therefore, the second hypothesis, that the attitudes toward direct monitoring behaviors are more accepted than the attitudes toward subversive monitoring behaviors, when using more parental warmth, was rejected.

Parental comfort in the attitudes toward monitoring behavior
The fourth hypothesis, that parental comfort with social media technologies positively predicts the attitudes toward subversive monitoring behaviors and negatively predicts the attitudes toward direct monitoring behaviors, was tested through a hierarchical

regression analysis. The attitudes toward direct and subversive monitoring behaviors of parents were predicted by gender at Step 1, by parental comfort with social media technology at Step 2 and interaction effects in Step 3. The results of the attitudes toward the direct monitoring behaviors are displayed in Table 6 and the results of the attitudes toward the subversive monitoring behaviors are displayed in Table 7.

Attitudes toward direct monitoring behaviors and parental comfort with social media technology were examined in the fifth regression analysis. The results of the regression analysis showed no significant effects for gender in Step 1, for parental comfort with social media technology in Step 2, or for the interaction between gender and parental comfort with social media technology in Step 3.

Attitudes toward subversive monitoring behaviors and parental comfort with social media technology were examined in the last regression analysis. The results of the last hierarchical regression indicated that gender in Step 1, parental comfort with social media technology in Step 2, and the interaction between the aforementioned variables were not significant.

Due to the results, the hypothesis that parental comfort with social media technology positively predicts the attitudes toward subversive monitoring behaviors was rejected. The same applied for the attitudes toward direct monitoring behaviors. This indicated that parental comfort was not a predictor for the attitudes toward subversive or direct monitoring behaviors.

Discussion

This study examined the predictors of parental privacy invasion with regard to adolescents' online behavior when using social media. The recent growth of social media in the lives of adolescents causes much concern among parents about its impact on their children's development (Liau, Khoo, & Ang, 2008; Lenhart & Madden, 2007; Youn, 2008). In general, parents try to set rules and monitor the behavior, which in turn may foster feelings of privacy invasion in children (Kerr & Stattin, 2000; Hawk et al., 2008). Although several studies indicated that parents use diverse strategies to monitor children's online behavior, there is not much information about the predictors for the use of these strategies. Therefore, this study investigated which variables were potential predictors of parental privacy invasion in adolescents' online behavior. We expected that, in monitoring online behavior, we would observe a similar distinction between direct and subversive monitoring as described by Petronio (1994; Hypothesis 1). We also expected that the attitudes toward direct and subversive monitoring would be predicted by parental motivations inspired by the social domain theory (Smetana et al., 2009; Hypothesis 2), by parental warmth and control (Hypothesis 3) and parental comfort with social media technology (Hypothesis 4). Overall, we did identify a similar behavioral

distinction, as suggested by Petronio (1994), between the parental attitudes toward direct and subversive monitoring of children's online behaviors. Furthermore, some of the parental predictors of privacy invasive monitoring behaviors were found, including certain parental motivations and the parenting characteristics of warmth and control. There was no support found for the other predictors.

Supporting Hypothesis 1, there were two main factors underlying monitoring behaviors of parents in their children's online behavior. This indicated that parental attitudes toward direct monitoring behavior, like asking their child about his/her online behavior, and parental attitudes toward subversive monitoring behavior, like parents asking brothers and sisters about their child's online activities, were distinguished. This distinction generally matched the one suggested in earlier research by Petronio (1994) about offline behavior. However, a qualification of this finding is that it does not automatically imply that parents actually engage in both types of behavior. Looking at the mean scores which were normally distributed for both behaviors, it is still difficult to determine whether parents feel associated with both monitoring behaviors. A limitation, which called for caution in interpreting the additional results, was that the distinction in factors was weak. The subversive monitoring scale consisted only of two items, of which both items had double loadings above .4 on both factors. The item 'I think it is important that parents monitor the websites the child visited without the child knowing', was included in the subversive factor. Despite an inaccurate statistical underpinning, it was for two reasons necessary to include this item. Firstly, it strengthened the factor because, otherwise, it was only consisting out of one item. Secondly according to our opinion, it fitted inherently to the subversive factor. On the other hand, all factor loadings were above .4 on the Direct Monitoring factor and explained more than half of the variance in the scale. Therefore, it was also possible to use one underlying dimension. However, for this research we decided to interpret the results as a two factor finding. For future research, it is important to construct additional items that are more exhaustive of the different parental monitoring behaviors in the questionnaire. Further, generating and testing a more comprehensive list may yield further useful information about this distinction. It could also be useful to consider the child experience of parental monitoring behaviors, because they can perceive parental monitoring behaviors differently (Wang et al., 2005). Nevertheless, the other three hypotheses were examined based on the distinction made here.

The second hypothesis about parental motivations in the attitudes about direct and subversive monitoring behaviors was partly retained. Four different issues, inspired by the social domain theory (Smetana et al., 2009), indicated the parental motivations. These included moral, prudential and conventional issues, and their overlap in multifaceted issues. Parents and adolescents disagree about parental monitoring in

multifaceted issues, because these contain an overlap of the personal and either the conventional or prudential domain (Smetana et al., 2009). We first hypothesized that the attitudes toward direct monitoring behaviors are positively related, and that the attitudes toward subversive monitoring behaviors are negatively related to prudential, moral and conventional issues. The findings indicated that the conventional issue ('A parent is worried that the child is not following the rules about which music he/she listens to on social media sites') was negatively related to the parental attitudes toward the acceptability of subversive monitoring behaviors. This result was partly in line with the social domain theory (Smetana et al., 2009) as only concerns about conventional issues predicted attitudes toward subversive monitoring behaviors, and not also the moral and prudential issues. An explanation for the fact that only the conventional issue is a predictor, is that parents and adolescents agree that parents should have legitimate authority over conventional issues. Further, we hypothesized that the attitudes toward direct monitoring behaviors are negatively related, and that the attitudes toward subversive monitoring behaviors are positively related to multifaceted issues. We found that the multifaceted issues predicted parental attitudes toward the acceptability of both direct and subversive monitoring behaviors. This suggested that, when parents were concerned about honesty, friendship or viewing pornography on social media, they thought it is justified to use both direct and subversive monitoring behaviors. This result was in line with the social domain theory. Parents and adolescents disagree about the parental authority concerning multifaceted issues. Therefore, while parents for example may see viewing pornography as a prudential issue, children may see it as a personal issue. According to Smetana and colleagues (2009), parents think they have the legitimate authority when it comes to moral, conventional or prudential issues. This disagreement between parents and adolescent explains the parent's attitude to still use both monitoring behaviors.

A limitation, specific for hypothesis 2, was first of all the limited amount of items for measuring the different issues. Only six issues were investigated, in which three of them where based on earlier research and the others did not have a proper theoretical basis. Therefore, it was difficult to indicate exhaustive conclusions about parental motivations. Further, it was not clear what the actual motivations of parents were, there were only situations asked in which parents were worried about a specific situation. Motivation is a broad concept and can't be measured by only a few statements about parental concerns. In this study, only the worries of parents were investigated and that is only one aspect of the concept motivations. For further research, it is important to examine the actual motivations. It might be an option to ask parents in a direct way what they think motivates them in their monitoring behaviors. In this way, it is possible to ascertain the motivations besides the parental concerns.

The data confirmed our expectation that parental control positively predicted the attitudes toward direct and subversive monitoring behaviors (Hypothesis 3). Controlling parents use maturity demands, behavior regulation and supervision. Related behavior contains setting firm limits and using direct confrontation (Baumrind, 1991). The results indicated that these controlling parents believed in the necessity of direct and subversive techniques for monitoring adolescents' online behavior. It was not surprising that these parents believed they could use both monitoring behaviors because they tend more often to seize any opportunity to gather information that they consider as necessary (Wang et al., 2005). The second hypothesis stated that parents who use more warmth, would show more acceptance of direct, and less acceptance of subversive monitoring behaviors. Parental warmth is the extent to which parents are attuned, supportive, and acquiescent to children's special needs (Baumrind, 1991). The hypothesis was partly in line with our findings. The results showed that more parental warmth only predicted less acceptance of subversive monitoring. No relation was found between parental warmth and the beliefs of acceptability of direct monitoring behaviors. In other words, warm parents, who create a safe and open environment, don't think it is necessary to use subversive monitoring behaviors, like asking brothers or sisters about their child's online behavior. Additionally, a supportive environment encourages child disclosure of information (Kerr & Stattin, 2000). Child disclosure might also be a possible reason for the fact that warm parents don't feel the inclination to use subversive monitoring behaviors. However, to be sure whether there is a negative relation between child disclosure and subversive monitoring, further research is necessary.

In contrast to the expectations in Hypothesis 4, this study showed that parental comfort with social media was not a predictor for the parental attitudes toward direct and subversive monitoring behaviors. We hypothesized that parental comfort with social media technology was positively related with the parental attitudes toward subversive monitoring behaviors and negatively related with the parental attitudes toward direct monitoring behaviors. The expectation was partly inspired by the prior finding that parents who are more comfortable with the social media technologies, track their child's activities more easily. Further, the rather large gap in technological expertise between children and parents tend to be smaller when parents use social media sites more often (Abril, 2007). Unfortunately, no relationship was found between parental comfort with social media technology and the attitudes toward direct and subversive monitoring behaviors. Nevertheless, some other studies have found significant effects for technological experiences and prior Internet knowledge on the way parents reflect on children's online behavior, in which awareness about possible risks made them consider monitoring to be of high importance (Valcke et al., 2010). A suggestion for further research is to operationalize parental comfort with social media technology more

specifically, preferably in terms of accurate parental technological skills. In this study, we namely investigated the experience of parents with social media through basic questions about the knowledge of social media existence, whether they used social media, and the frequency of use. It is, however, also important to examine the actual knowledge of parents, to gain insight in their technological expertise. Further, it is possible to observe the parents' use of social media to get a broader perspective of the familiarity with social media.

General limitations and conclusion

This study contained several general limitations. A first general limitation was the small sample size (73 parents), which made generalizing the findings to a broader extent more difficult. The small sample size made it hard to get clear distinctions between the parents and their different attitudes toward monitoring behaviors. To compute a satisfactory factor analysis it is important to have a bigger sample size of at least 100 participants (Field, 2009). Strong data is needed in which item communalities are consistently high, factors exhibit high loadings on a substantial number of items, and the number of factors is small. Further, it was unclear whether the findings extend to families of other socioeconomic backgrounds or residential areas (rural or urban). As mentioned by Valcke and colleagues (2010) these variables could be of influence on parenting. Additionally, other essential background information, like the age of the parents, the sex and the exact age of the child, were not included in the survey. If questions about more specific characteristics were included, it would be possible to control for these background variables. This also made it less possible to generalize the findings to a broader context. Another limitation was the presence of some missing or inaccurate questions in the questionnaire. It is important to mention that we examined the actual parental attitudes toward monitoring behaviors themselves, and not their past behaviors. This choice possibly led to socially desirable answers. To avoid this limitation in further research it is better to include other methods, such as measuring actual past behavior or gathering responses from multiple informants. Probably, with both a bigger sample size and a more accurate questionnaire, we would have been better able to distinguish the monitoring behaviors, the parental motivations, the parenting characteristics, and the parental comfort with social media technologies. This would be a recommendation for future research. Another recommendation for future research is to measure whether child disclosure or parent-child attachment is correlated with parental monitoring behavior. Low child disclosure might be a motivation for parents to use more frequent and diverse monitoring behaviors, and a disturbed attachment can possibly lead to more monitoring behaviors (Yardi & Bruckman, 2011).

In conclusion, the present results supported the notion that Petronio's (1994) distinction in parental monitoring behaviors, namely direct and subversive monitoring behaviors, also extends to the parental attitudes toward monitoring adolescents' online behavior. We found some of the predictors for parental privacy invasive monitoring behaviors, including parental motivations with regard to the multifaceted issues and the conventional issue, and the parenting characteristics of control and warmth. According to the social domain theory (Smetana et al., 2009) and the results in this study, when parents faced a multifaceted issue, they indicated that they thought it was necessary to use both direct and subversive monitoring behaviors. Additionally, when parents faced a conventional issue, they thought it was OK to use less subversive monitoring behavior. Also, parental control positively predicted both the parental attitudes toward direct and subversive monitoring behaviors. Subversive monitoring behaviors were less accepted by parents who used predominantly parental warmth. Further, parental comfort with social media technology was not a predictor for the parental attitudes toward privacy invasive monitoring behaviors in children's online behavior.

The findings of this study suggested several parental predictors for privacy invasive monitoring behaviors in adolescents' online activities. Parents think some issues, like conventional and multifaceted issues, are a legitimate reason to commit privacy invasion. Also, when parents use more parental control and less warmth, parents have a more positive attitude towards using privacy invasive behaviors. As mentioned before, privacy invasive monitoring behavior could have a negative effect on the welfare of adolescents (Hasebe, Nucci, & Nucci, 2004; Petronio, 1994; Waizenhofer, Jackson-Newsom, & Buchana, 2004). The results of this study highlight the need for specific attention for the abovementioned motivations and characteristics of parents. When understanding these predictors for privacy invasion, it is possible to develop interventions to guide parents in using their monitoring behaviors properly and, as a consequence, protect adolescents during their development.

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Table 1

Descriptive statistics of the demographic variables

Variable		*N*	Percentage
Gender parents	Mother	53	72.6%
	Father	20	27.4%
Parent Educational level	MBO	18	24.6%
	HBO	41	56.2%
	WO	14	19.2%
Family composition	Two-parent family	64	87.7%
	One-parent family (divorced)	7	9.6%
	One-parent family (widower)	2	2.7%
Amount of children	One child in the age of 14-17 years	53	72.6%
	Two or more children in the age of 14-17 years	20	27.4%
Nationality	Dutch	73	100%

Table 2

Factor loadings based on a principle components analysis with Oblimin rotation for 10 items from the subscale 'Parental monitoring behaviors' (N = 73)

	Direct	Subversive
I think it is important that parents sit beside the child and watch them at the time the child is using social media sites.	.74	.02
I think it is important that parents regularly take a look at the computer when the child is using social media sites.	.74	.12
I think it is important that parents use filters to ensure that the child is not visiting inappropriate sites.	.69	-.20
I think it is important that children ask permission before they can make use of social media sites.	.58	-.37
I think it's important for parents to ask exactly what children do on social media sites.	.75	-.25
I think it's important for parents to visit the social media sites of their children, so they can see what children report on the site.	.77	.04
I think it's important for parents to determine the privacy settings of the child's social media sites.	.57	-.13
I think it is important that parents are 'friends' with their child on social media sites, so they can watch what their child does and says.	.78	-.18
I think it is important that parents monitor the websites the child visited without the child knowing.	.60	.42
I think it is important that parents inform a brother or sister about the social media use of the child.	.48	.76

Table 3

Descriptive statistics and correlations

	M	SD	1	2	3	4	5	6	7	8
Monitoring Behaviors										
1. Direct	2.73	.76								
2. Subversive	2.23	.84	.49*							
Parental motivations										
3. Moral	4.00	.64	.35*	.36*						
4. Prudential	3.85	.57	.26*	.36*	.79*					
5. Conventional	3.23	.87	.41*	.18	.53*	.56*				
6. Multifaceted	3.70	.57	.46*	.46*	.70*	.74*	.72*			
Parental characteristics										
7. Parental Control	2.22	.67	.71*	.33*	.27*	.25*	.33*	.40*		
8. Parental Warmth	2.86	.77	.38*	.03	.15	.11	.16	.12	.67*	
Parental comfort with social media										
9. Parental comfort	3.02	.79	.04	-.01	.05	.07	.02	-.09	.07	.35*

Note. $*p < .05$; N = 73.

Table 4

Results of regression analysis of the attitudes toward direct monitoring behaviors on the issues in the domains of parental motivations (moral, prudential, conventional and multifaceted)

	B	SE	β	ΔR²
Step 1				
Intercept	-.18	.22		.01
Gender	.25	.26	.11	
Step 2				
Intercept	-.16	.20		.25*
Gender	.22	.24	.10	
Moral issue	.20	.18	.20	
Prudential issue	-.31	.19	-.31	
Conventional issue	.17	.15	.17	
Multifaceted issue	.42	.19	.42*	
Step 3				
Intercept	.06	.22		.14
Gender	.16	.25	.07	
Moral issue	.52	.43	.52	
Prudential issue	.32	.46	.32	
Conventional issue	.55	.86	.55*	
Multifaceted issue	-.73	.53	-.73	
Gender x Moral issue	-.36	.48	-.31	
Gender x Prudential issue	-.73	.51	-.61	
Gender x Conventional issue	-.54	.34	-.44	
Gender x Multifaceted issue	1.35	.60	1.12*	
Moral issue x Prudential issue	-.21	.21	-.27	
Prudential issue x Conventional issue	-.07	.31	-.08	
Conventional issue x Multifaceted issue	-.06	.17	-.08	
Multifaceted issue x Moral issue	-.08	.31	-.10	
Multifaceted issue x Prudential issue	.10	.28	.14	
Conventional issue x Moral issue	.13	.41	.13	

Note. *p < .05.

Table 5

Results of regression analysis of the attitudes toward subversive monitoring behaviors on the issues in the domains of parental motivations (moral, prudential, conventional and multifaceted)

	B	SE	β	ΔR²
Step 1				
Constant	-.12	.23		.01
Gender	.17	.26	.08	
Step 2				
Constant	-.08	.20		.26*
Gender	.11	.24	.05	
Moral issue	.08	.18	.08	
Prudential issue	.02	.19	.02	
Conventional issue	-.31	.15	-.31*	
Multifaceted issue	.62	.19	.62*	
Step 3				
Constant	.01	.23		.08
Gender	.01	.26	.01	
Moral issue	.46	.45	.46	
Prudential issue	-.04	.48	-.04	
Conventional issue	-.31	.27	-.31	
Multifaceted issue	.20	.56	.20	
Gender x Moral issue	-.42	.50	-.36	
Gender x Prudential issue	.11	.53	.09	
Gender x Conventional issue	.07	.35	.06	
Gender x Multifaceted issue	.49	.63	.41	
Moral issue x Prudential issue	.31	.22	.40	
Prudential issue x Conventional issue	.06	.32	.06	
Conventional issue x Multifaceted issue	-.02	.18	-.02	
Multifaceted issue x Moral issue	-.20	.33	-.26	
Multifaceted issue x Prudential issue	-.13	.29	-.17	
Conventional issue x Moral issue	-.07	.43	-.07	

Note. *p < .05.

Table 6

Results of the regression analysis of the attitudes toward direct monitoring behaviors on parental warmth, parental control and parental comfort with social media technology.

	B	*SE*	β	*ΔR²*
Step 1				
Intercept	-.18	.22		.01
Gender	.25	.26	.11	
Step 2				
Intercept	-.03	.16		.51*
Gender	.04	.19	.02	
Parental control	.82	.11	.82*	
Parental warmth	-.17	.11	-.17	
Step 3				
Intercept	-.00	.17		.01
Gender	.02	.19	.02	
Parental control	.88	.22	.88*	
Parental warmth	-.11	.19	-.11	
Gender x Parental control	-.10	.26	-.10	
Gender x Parental Warmth	-.10	.24	-.10	
Gender x Parental comfort with social media				
Parental control x Parental warmth	.00	.07	-.00	

Note. *p* < .05.

Table 7

Results of regression analysis of the attitudes toward subversive monitoring behaviors on parental warmth, parental control and parental comfort with social media technology.

	B	*SE*	β	*ΔR²*
Step 1				
Intercept	-.12	.23		.01
Gender	.17	.26	.08	
Step 2				
Intercept	-.04	.21		.17*
Gender	.06	.25	.03	
Parental control	.55	.15	.55*	
Parental warmth	-.34	.15	-.34*	
Step 3				
Intercept	.01	.22		.05
Gender	.07	.25	.03	
Parental control	.75	.28	.75*	
Parental warmth	-.73	.25	-.73*	
Gender x Parental control	-.29	.33	-.25	
Gender x Parental warmth	.57	.31	.47	
Parental control x warmth	-.07	.09	-.08	

*Note. *$p < .05$.