
This is the published version of the paper.

This version of the publication may differ from the final published version.

Permanent repository link: http://openaccess.city.ac.uk/15343/

Link to published version: http://dx.doi.org/10.1016/j.elerap.2014.12.003

Copyright and reuse: City Research Online aims to make research outputs of City, University of London available to a wider audience. Copyright and Moral Rights remain with the author(s) and/or copyright holders. URLs from City Research Online may be freely distributed and linked to.
The Influence of Parents versus Peers on Generation Y Internet Ethical Attitudes

Note: All research procedures were conducted in accordance with the ethical guidelines of the host country.
Abstract

We examine the role of parental style vs peer influence on Generation Y’s attitudes towards online unethical activities using a survey of a matched parent-child sample. Results suggest that a protective parental style has the greatest impact on Generation Y’s online ethical attitudes, while a strict discipline style has no significant influence. Peers are more influential, but not as influential as when there is agreement between parents and their children on a specific activity. Methodologically, the research highlights the necessity to measure family dyads and assess whether or not parents and their children’s perceptions are the same.

Keywords: family dyads; online ethics; survey; regression; Austria
1. Introduction

Generation Ys (those born between 1980-2000\(^1\)) are the first generation to have grown-up with the Internet which has made it easier for them to engage in unethical activities such as; online pornography, hate-sites, bomb/drug making websites, copyright violation (Hope 2006) and pirating software (Aleassa et al. 2011; Liao, Lin and Liu 2010; Phau and Ng, 2010; Global Software Piracy Study, 2009, IFPI Digital Music Report 2010). This is partly because of the Internet’s separate culture or “Netiquette” (Johnston and Johal 1999) which; enhances a false sense of reality, lowers potential levels of detection, lessens punishment for potential miscreants, allows the adoption of a virtual persona (Freestone and Mitchell 2004) and results in Internet risk perceptions being non-existent (Hope 2006). These behaviours have an ethical dimension and while web research on young people has looked at; concerns over commercial intrusion online (Grant 2005); use as a shopping medium (Thomson and Laing 2003); emotional responses (Page et al. 2010) and pester power (Lawlor and Prothero 2011), relatively little research has explored Generation Y’s online ethical attitudes which we define as ‘how right or wrong consumers feel an online activity is’. Of the few which have, they have examined; the role of technology in teenage moral development (Subrahmanyam and Smahel, 2009), the ethical awareness of technology-related issues (McMahon and Cohen, 2009), how ethical illegal acts are seen (Freestone and Mitchell, 2004), and differences in downloaders and non-downloaders (Robertson, McNeill, Green and Robert, 2012). However, while technological factors have been highlighted as causes for the changing nature of Generation Y’s online ethical attitudes (Subrahmanyam and Smahel, 2009; McMahon and Cohen, 2009; Freestone and

---

\(^{1}\) See e.g. Bhave et al. (2013), Bristow et al. (2011), Weingarten (2009), or Sayers (2007)
Mituell, 2004; Robertson, McNeill, Green and Robert, 2012), work in this area has neglected the role of social factors.

Social learning theory suggests that understanding social conditioning is more important than rational consideration in explaining morality (Foo Nin et al. 1997, Fukukawa 2003). While social learning comes from numerous sources in a child’s upbringing, such as peers, school, religion and culture, one of the most dominant sources of moral guidance is parents. Parents are in fact a child’s “first and enduring teachers” (Department for Education and Employment, 1997) who shape developing norms, values and motivation among young people (Moore and Moschis 1981, Moschis 1985) and there is anecdotal evidence showing that parental interaction is an important tool for protecting teens’ online safety (e.g. Privacy Rights Clearinghouse 2009). However, young people also learn from direct and indirect interaction with peers through discussions, rulemaking, reinforcement and modeling (Koesten and Anderson 2004, Mangleburg et al. 1997, Moore et al. 2002). In particular, ‘digital natives’ have an inclination to trust peer opinion and public consensus rather than established data sources (Hershatter and Epstein 2010) and have in some cases entirely integrated their social lives and their electronic gadgets (Wells et al. 2012) using their smartphones to gather information and to connect with friends (Bhave et al. 2013). Despite the importance of parents in influencing ethical considerations of children (Bakir and Vitell 2010), we know little about how much they can influence ethical attitudes towards questionable online activities. Nor do we know how strong peer influence is in comparison to parenting style in determining online ethical attitudes.

---

2 Helsper and Eynon (2010) define digital natives as “someone who comes from a media-rich household, who uses the Internet as a first port of call for information, multi-tasks using ICTs and uses the Internet to carry out a range of activities particularly those with a focus on learning” (pg. 515).
This raises several questions such as; which is more important in shaping young people’s online ethics, parenting style or peer influence? And if there is an effect, how big is it and is any particular parenting style more effective than another? A better understanding of the social influences at work in influencing the online ethical attitudes of Generation Y would be useful for knowing where and how to intervene. Thus, the research aims to investigate the influence of parenting style versus peer group on Generation Y’s attitude towards unethical online activities. By using the relatively unique research approach of parent-child dyads in our data collection, we provide important insights regarding dyadic ethical attitudes which previous research has not been able to identify (Schlegelmilch and Öberseder, 2010). We begin by anchoring our conceptual model in the literature and by developing several hypotheses. Next, we explain how these were tested with a sample of paired parents and their children using a survey methodology. After discussing the results, we conclude with some implications for organisations and parents concerned about young people’s online activities.

2. Literature Review and Hypotheses

Socialization is the process by which “young people” acquire skills, knowledge, and attitudes relevant to their functioning as consumers in the marketplace (Ward 1974). Here, we identify parents and peers as key agents of socialization and consider how different parental styles might affect a young person’s online ethical attitudes. Despite parental styles not being uniformly defined in the academic literature, and notwithstanding numerous conceptualizations (Baumrind
1991; Baumrind 1978; Baumrind 1971; Eastin et al. 2006; Rose et al. 2002), we consider them to be a steady composite of beliefs and attitudes that provide context for parental behavior (Darling and Steinberg 1993). Our model and hypotheses highlight the three most commonly discussed parental styles as presented in the “parenting styles” literature.

2.1. Encouraging verbalization parenting style

This style is closely related to the “Permissive” parental style which Baumrind (1971) describes as warm and nonrestrictive. These parents promote independence in their children and place few controls on their children’s media use (Rose 2002), which is likely to lead to greater exposure to unethical online activities. They are also least likely to exclude outside influences, such as the Internet, from their children’s environment (Carlson and Grossbart 1988), take few steps to orchestrate the content or monitor the motives of their children’s computer activity and rarely become directly involved in that activity themselves (Kerawalla and Crook 2002). The fact that they give their children adult rights without concomitant responsibilities and communicate openly with them (Carlson et al. 2001) suggests that children will be left to their own devices on the Internet to develop their own way of behaving or netiquette.

Such a permissive parenting style is also characterized by low levels of demand, in terms of standards and behaviours and relatively high levels of responsiveness (Eastin et al., 2006). Since these parents; are nontraditional and lenient, do not require mature behavior, allow considerable self-regulation, and avoid confrontation (Baumrind 1991), they are less likely to demand high ethical standards.
Their influence on children’s moral development is likely to be weak, since they seldom use overt control and encourage their children to develop an internally defined set of standards and perspectives (Rose 1999).

However, the encouraging verbalizing parental style helps children to talk about anxieties, conflicts, hostilities, and disagreements with parental policies (Schaefer and Bell 1957). This is similar to concept-oriented communications (Moore and Moschis 1981; Moschis 1985), where debate through open discussion of ethical issues is encouraged and furthers children’s own critical thinking about online issues (Carlson et al. 1990, Laczniak et al. 1995). For example, research has shown that teens’ discussion with their parents leads to higher levels of privacy concern (Youn 2008). In such a permissive and encouraging environment, children are likely to explore the Internet more and be exposed to more unethical activities as they develop their own sense of what is right and wrong in discussion with their parents. Thus, we hypothesize that;

H1 Encouraging verbalization parenting is positively related to Generation Y’s attitudes towards online unethical activities.

2.2. Protective parenting style

Protective, or fostering dependency, parents, are actively involved in monitoring and controlling their children’s environment and place a high degree of control on their children’s media exposure (Rose et al. 2002) which is likely to reduce their exposure to unethical online activities. They also have the most defined
expectations for children’s development (Carlson and Grossbart 1988) and are likely to balance children’s rights and responsibilities (Gardner 1982) which will have the effect of heightening expectations of ethical behaviour. They encourage self-expression, but expect children to act maturely and in accordance with family rules (Carlson et al. 2001) which provide high levels of demand and warmth (Eastin et al. 2006) similar to authoritative parents who monitor and impart clear standards for their children’s conduct (Baumrind 1991). This is likely to have a positive impact on their online ethics. Because these parents tend to emphasize vertical relationships, obedience, and social harmony, and limit their children’s exposure to outside information such as television advertising (Rose et al. 1998), they have a socio-oriented family communication style, which emphasizes obedience to parental authority and conformity to family values (Carlson et al. 1992, Laczniak et al. 1995). This makes them prone to limit their children’s access to outside influences, such as media and the Internet, because they can consider these external influences as threats to parental authority (Fujioka and Austin 2002, Rose et al. 1998). Indeed, teens with socio-oriented communication are more likely to have family rules and surf the Internet with parents (Youn 2008). Fostering dependency parents want their children to be assertive, socially responsible, self-regulated as well as cooperative (Baumrind 1991) and exert family rules to protect children from controversial media messages (Moschis 1985). With such protection, clear and consistent standards, communication about and around those standards and the expectation of self-regulation within a warm environment, children are more likely to be ethical. Thus, we hypothesize that;
H2 A protective parenting style is positively related to Generation Y’s attitudes towards online unethical activities.

2.3. Strict discipline parenting style

Strict parenting is the degree to which the mother feels punishment is an effective method of influencing and controlling children (Schaefer and Bell 1957) and has been labeled as “authoritarian”, since it is characterized by the enforcement of rules in a strict and limiting manner (Carlson and Grossbart 1988). This parenting style is also called the ‘because I said so’ approach. Authoritarian parenting is based on family rules, but they are only enforced irregularly, depending on the parents’ mood. In addition, it is characterized by high levels of demand, but low levels of warmth and psychological autonomy (Eastin et al. 2006). While authoritarian parents place relatively few restrictions on their children’s media exposure (Rose 2002), they are obedience- and status-oriented, and expect their orders to be obeyed without explanation (Baumrind 1991), which is likely to cause children to fear parental reaction to online unethical activity. This authoritarian parental style can also be characterized by hostile and restrictive tendencies (Carlson et al. 2001) which is likely to make children wary of being unethical. Since such parents try to control their children, endorse adult supremacy, and discourage verbal interactions with children (Carlson and Grossbart 1988), children are more likely to fear what parents might think or do with regard to them being unethical online. With a strict, if inconsistent family environment, children are more likely to be concerned about parental disapproval and repercussions of any unethical activity; thus they are more likely to maintain ethical standards on the Internet and we hypothesize that;
H3 A strict discipline parenting style is positively to Generation Y’s attitudes towards online unethical activities.

2.4. Parent-child agreement on the ethics of individual online activities

Strict parents expect their children to accept their judgments, values, and goals even if applied inconsistently and *ad hoc* (Eastin et al. 2006). This inconsistent approach to rule enforcement and lack of explanation can lead to unethical online behavior sometimes being criticized, while other times it is allowed. Importantly, there is likely to be a lack of consistency with regard to individual types of unethical activities. For example, if the parents are keen film watchers, they might condone downloading films illegally, but condemn downloading music in which they have no interest. Indeed only 60% of parents and teens agree with each other about whether there are or are not any rules for the Internet (Wang et al. 2005).

Other studies have found that parent-child agreement can be seen as one of the variables that characterize effective parenting (Tein et al. 1994). For example, work on the effectiveness of parental mediation in reducing the effect of advertising exposure and materialistic attitudes shows that this is greater when parent-child agreement about mediation is high (Buijzen et al. 2008). This suggests an interesting hypothesis relating to one determinant of children’s perception of the ethicality of specific online activities, which is their parents’ perception of that activity.

One way of understanding this is seeing the formation of a parent-child relationship concerning a specific online activity as similar to a psychological contract. A main feature of such contracts is the individual’s belief that an agreement is mutual, that is, a common understanding exists that binds the parties involved to a
particular course of action (Rousseau 2001). Such contracts are not static (Millward Purvis and Cropley 2003, Tornow and De Meuse 1994) and their dynamics can be described as an interplay of implicit expectations (wants and offers) between parent and child built on tacit acceptance of each other’s interdependency (cf. Levinson et al. 1962). This interdependency is particularly relevant in an online context where some unethical behaviors are only really understood by the technologically-savvy child who then guides their less-informed parents into what is and what is not acceptable or done in Internet environments. We suggest that the agreement between Generation Y’s and their parents about the ethicality of an individual online activity will influence their final judgment and propose that;

H4 The agreement between parents and their children on the ethics of a specific online activity will have a positive impact on Generation Y’s attitudes towards online unethical activities.

2.5. Peer influence on Generation Y’s online ethics

Apart from parents, one key group in the socialization process that is likely to affect Generation Y’s attitudes toward online behavior is peers, partly because children’s perceptions of their own identities are related to their friendship groups (e.g. Moschis 1985, 1978; Pollard 1985; Sluckin 1981). Peer influence is defined as the influence from an actual or imaginary individual or group conceived of having significant relevance upon an individual’s evaluations, aspirations, or behavior (Park and Lessig 1977). Previous studies have shown that parental influence sharply
decreases during adolescence due to the rising counter influence of peers (e.g. Besag 1989; Gecas and Seff 1990; O’Brien and Bierman 1988).

Peers contribute to young people’s acquisition of marketplace knowledge and are important reference sources for teens in selecting products (e.g. Gilkison 1973; Mascarenhas and Higby 1993; Saunders et al. 1973). In addition, frequency of communication with peers is related positively to adolescents’ attitudes toward such things as advertising (Moschis 1978) and their skepticism toward advertising is related to their susceptibility to being influenced by peers (Boush et al. 1994, Mangleburg and Bristol 1998). In particular, reference groups supply needed information in ambiguous consumption situations, such as unethical online activities and, therefore, young people may be susceptible to being influenced by such information (Mangleburg and Bristol 1998).

Compared to the level of their parents’ moral development (Kohlberg 1984), peers are less morally developed and therefore more likely to have a negative influence on young people’s ethical attitudes towards online activities. For example, youths aged 19 years significantly report more negative emotions and less positive web emotions than 13–15 year olds (Page et al. 2010). This is especially problematic in the absence of positive family relationships when adolescents may depend more on peers for support and thus run a greater risk of identifying with negative behavior (Feldman and Wentzel 1990); something, which is an important factor in the deviant behavior of young offenders (Cullingford and Morrisson 1997). Finally, we argue that unlike their parents, peers have grown up in online environments where the level of surveillance, detection and deterrence of unethical behavior is very limited, which will
also have a negative effect on their moral development. This means we hypothesize that;

H5 Peer influence is negatively linked to Generation Y’s attitudes towards online unethical activities.

Figure 1 draws together the hypotheses derived from the literature and depicts the conceptual model of the relationships between Generation Y’s online ethical attitudes, parental styles and peer influence.

**Fig. 1.** A conceptual model of the relationships between Generation Y’s online ethical attitudes, parental styles and peer influence

3. Methodology
3.1. Sample and data collection

Generation Ys (those born between 1980-2000\(^3\)) were chosen because they are the first generation to grow up with computers, the Internet, cell phones, and a proliferation of computer games (Lippincott and Pergola 2009). This makes them tech-savvy, which distinguishes them from members of other generations (Deal et al. 2010) and means they are more satisfied with the Internet and less risk averse than older generational cohorts (Pew Research Center 2010). Most studies refer to Gen Y (or Millennials) as those individuals born after 1980 (e.g. Baldonado and Spangenburg 2009, Lippincott and Pergola 2009, Alexander and Sysko 2013, Bhave et al. 2013, Wells et al. 2012, Weingarten 2009, Sayers 2007). However, due to the unethical scenarios in the questionnaires, including such delicate subject matter as pornography, young people under the age of 17 had to be excluded. This was also advantageous from a response viewpoint, as we wanted young adults to be free for official parental control so as to be able to explore the fullest range of possible online activities.

The sampling technique used was a convenience sample which is appropriate to more thoroughly understand the market and the consumer (Tuncalp 1988; Al-Khatib et al. 1997) and has been used in many consumer ethics' studies (e.g., Rawwas 1996; Al-Khatib et al. 1997; Kwong et al. 2003; Babakus et al. 2004; Rawwas et al. 2005; Iwanow et. al. 2005; Cornwell et al. 2005; Lu and Lu 2010).

Similar to previous parent-child dyad research (Buijzen and Valkenburg 2003; Buijzen et al. 2008), students completed a paper-and-pencil questionnaire, and after

\(^3\) See e.g. Bhave et al. (2013), Bristow et al. (2011), Weingarten (2009), or Sayers (2007).
completing it, they were given a parent questionnaire to take home for completion by one parent. Before filling in the questionnaire, students were given an explanation about how the questionnaires had to be completed. Respondents were assured of anonymity and questionnaires were given to students together with an envelope, which contained an additional questionnaire and an informative covering letter for their parents. Both questionnaires had the same randomly assigned sample ID. The student questionnaires were then collected, while the parent questionnaires were returned by post. Four hundred and fifteen students were selected from those registered at WU Vienna within the Management discipline. The response rate was 75%. The final sample consisted of 332 questionnaires of which half were parents and half Generation Y. One parent from each family was included in the sample. Seventeen questionnaires had to be excluded due to missing data and incorrect responses giving a final sample size of 166. The final parent sample had a balanced representation of demographic characteristics and comprised of: 47% fathers and 53% mothers, 15.7% parents aged 27-45, 70.4% parents aged 46-60 and 13.9% parents aged over 60 and for education, 20.1% primary school, 36.4% secondary school and 43.5% college education. Further demographic characteristics of the parents can be found in Table 1. The sample of Generation Y consisted of 42.2% men and 57.8% women with an average age of 22.5 years (std. dev. = 2.55).
Table 1. Demographic characteristics of the parents

<table>
<thead>
<tr>
<th>Demographic profile</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>12</td>
<td>7.2</td>
</tr>
<tr>
<td>Married/with partner</td>
<td>128</td>
<td>77.1</td>
</tr>
<tr>
<td>Divorced</td>
<td>22</td>
<td>13.3</td>
</tr>
<tr>
<td>Widowed</td>
<td>4</td>
<td>2.4</td>
</tr>
<tr>
<td><strong>Number of children in the household</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One</td>
<td>33</td>
<td>19.9</td>
</tr>
<tr>
<td>Two</td>
<td>77</td>
<td>46.4</td>
</tr>
<tr>
<td>Three</td>
<td>42</td>
<td>25.3</td>
</tr>
<tr>
<td>Four or over</td>
<td>14</td>
<td>8.4</td>
</tr>
<tr>
<td><strong>Net monthly household income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to €1000</td>
<td>14</td>
<td>8.4</td>
</tr>
<tr>
<td>€1,001-€2,000</td>
<td>26</td>
<td>15.7</td>
</tr>
<tr>
<td>€2,001-€3,000</td>
<td>39</td>
<td>23.5</td>
</tr>
<tr>
<td>€3,001-€4,000</td>
<td>32</td>
<td>19.3</td>
</tr>
<tr>
<td>&gt;€4,000</td>
<td>42</td>
<td>25.3</td>
</tr>
<tr>
<td>No answer</td>
<td>13</td>
<td>7.8</td>
</tr>
</tbody>
</table>
3.2. Survey development

In order to face-validate the questionnaire, parents’ and their children’s opinions towards online activities were sought in two focus groups. Focus group discussions can be used to “elicit information helpful in structuring questionnaires” (Craig and Douglas 2005: 227) and in this case the feedback served to affirm our chosen structure. In addition, they were used to assess parents and Gen Y’s attitudes towards and understanding of music piracy, movie piracy, pornography and plagiarism and to establish conceptual equivalence of the main ethical scenarios and constructs which is a major issue in international marketing research (Craig and Douglas 2005: 246, Keegan and Schlegelmilch 2001: 190). The first focus group included five parents and the second their respective children. Of the five parents, three were female and the age ranged between 36 and 50. Of the six students, three were female and all students were between 18 and 20. Participants did not receive an incentive to participate. In the children’s focus group, we followed the Principles of the Market Research Society’s Code of Conduct (see MRS 2012, p. 6); therefore, our research did not involve children under the age of 16. Participants had to have own a computer and have some experience of the Internet to participate. The focus groups lasted 80-90 minutes and participants were chosen from a convenience sample of students and their parents from the university. The sessions were conducted in a seminar room within the university and interviewees were ensured that their identities would be kept confidential as they were recorded using a voice recorder and the moderator took some notes.
The moderators structured the discussion to ensure active involvement of participants and a clear topic emphasis on children’s and parents’ Internet usage habits, possible dangers of the Internet, or “real” life versus online dangers for children, before asking them to look at and discuss the items on the questionnaire for comprehension, completeness and clarity (Sarantakos 1998). Interviewees were urged to give examples of the kinds of things they did and thought their children did on the Internet. Finally, they allowed discussion of reactions of parents and teenagers to being asked about such potentially sensitive issues and allowed for an initial assessment of how willing respondents might be to disclose the sensitive information which proved not to be problematic. The moderators refrained from discussing some very sensitive issues such as child pornography and participants were not contacted the second time to verify the accuracy of their comments.

The results from qualitative discussions confirmed their understanding of all the scenarios. Two versions of the questionnaire were developed; one for parents, the other one for their respective children. Both were almost identical. The Schaefer and Bell’s (1958) scale on “encouraging verbalization” was used to measure the encouraging and communicating parental style, and their “fostering dependency” was adopted for both the protective and the strict discipline parental style (see Table 2 for items). Peer pressure was measured via the perception of each child regarding their friends’ attitude toward the ethicality of online activities. The statements used to capture peer pressure were based on Park and Lessig’s (1977) construct on reference group influence (see Appendix for items).

Online ethical attitudes was measured in the second part of the questionnaire and included activities with ethical relevance, such as music piracy, movie piracy,
pornography and plagiarism. One item was used for each of the observed four illegal activities with a five-point Likert scale (1=totally wrong; 5=totally acceptable) (see Appendix for scenarios). All questions concerning ethical attitudes were worded in the third person to ensure that respondents judged others’ behavior and not their own (see also Fullerton et al. 1996), and to reduce the risk of social desirability bias. A new variable was created which consisted of the parents’ ethical attitude towards a specific online activity minus their child’s ethical attitude towards it. The final part of the questionnaire included questions concerning socio-demographics that were used for classification purposes.

4. Analysis and Results

Preliminary analyses using Exploratory Factor Analysis (EFA) was used to identify the main dimensions of parental styles. A three-factor solution, reflecting the three parental styles (Encouraging, Protective and Strict Discipline), was identified and explained 66% of the variance while cross loadings show satisfactory values (see Table 2 for a full list of items and the corresponding standardised factor loadings). Varimax rotation was employed (Hair et al. 2010) and the inter-factor correlations were in excess of the recommended threshold (Nunnally and Bernstein 1978). Two items were eliminated on the basis of low communalities (<0.50) and factor loadings (<0.60) namely, “how much privacy a child should have” and “how misbehavior should be punished”. The remaining items captured the domain of the constructs well and also loaded well on the respective factors while cross-loadings were low.
<table>
<thead>
<tr>
<th>Dimension</th>
<th>Factor loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F1</td>
</tr>
<tr>
<td><strong>1. Encouraging and Communicating</strong> (Cronbach α=0.70)</td>
<td></td>
</tr>
<tr>
<td>Children should be allowed to disagree with their parents about matters concerning their Internet usage</td>
<td>0.603</td>
</tr>
<tr>
<td>Children should be encouraged to tell their parents when they feel that family rules regarding the Internet usage are unreasonable</td>
<td>0.700</td>
</tr>
<tr>
<td>A child has a right to his/her own opinion about participating in on-line communities and ought to be allowed to express it</td>
<td>0.807</td>
</tr>
<tr>
<td>A child’s ideas should be seriously considered before making family decisions regarding Internet usage</td>
<td>0.700</td>
</tr>
<tr>
<td><strong>2. Protective</strong> (Cronbach α=0.65)</td>
<td></td>
</tr>
<tr>
<td>Parents should know better than allow their children to be exposed to unethical Internet situations</td>
<td>0.129</td>
</tr>
<tr>
<td>Children should be kept away from all unethical Internet situations, which might affect them</td>
<td>-0.063</td>
</tr>
<tr>
<td><strong>3. Strict discipline</strong> (Cronbach α=0.66)</td>
<td></td>
</tr>
<tr>
<td>A child will be grateful later on for strict training</td>
<td>-0.107</td>
</tr>
<tr>
<td>Strict discipline develops a fine, strong character</td>
<td>-0.062</td>
</tr>
<tr>
<td>Children who are held to strong rules grow up to be the best adults</td>
<td>-0.079</td>
</tr>
</tbody>
</table>

The influence of these three parental styles and peer influence were examined on Generation Y’s ethical attitudes towards music and movie piracy, accessing sites with pornographic content and plagiarism using Ordinary Least Squares (OLS)
regression in SPSS version 20.0. Since the items in each regression model are individual and not composite measures, there is no need to calculate reliability and Table 3 reports the standardized regression coefficients.

**Table 3**

Standardized regression coefficients for the Determinants of Generation Y’s attitudes towards online unethical activities.

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Music Piracy</th>
<th>Movie Piracy</th>
<th>Pornography</th>
<th>Plagiarism</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$</td>
<td>$B$</td>
<td>$\beta$</td>
<td>$\beta$</td>
</tr>
<tr>
<td>Encouraging</td>
<td>-.006</td>
<td>.012</td>
<td>-.041</td>
<td>-.069</td>
</tr>
<tr>
<td>Protective</td>
<td>-.021</td>
<td>-.129**</td>
<td>.039</td>
<td>-.093*</td>
</tr>
<tr>
<td>Strict discipline</td>
<td>-.08</td>
<td>.022</td>
<td>-.062</td>
<td>-.002</td>
</tr>
<tr>
<td>Peer pressure</td>
<td>-.183***</td>
<td>-.296***</td>
<td>-.212***</td>
<td>-.259***</td>
</tr>
<tr>
<td>Parent-child</td>
<td>.560***</td>
<td>.547***</td>
<td>.685***</td>
<td>.619***</td>
</tr>
<tr>
<td>agreement on</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ethicality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>3.830***</td>
<td>3.964***</td>
<td>2.784***</td>
<td>3.598***</td>
</tr>
</tbody>
</table>

| $R^2$                  | .40          | .44          | .59         | .58        |
| Adjusted $R^2$         | -.38         | 0.42         | 0.57        | 0.57       |
| $F$-value              | 20.769***    | 24.817***    | 44.613***   | 44.077***  |
| $p$-value              | 0.000        | 0.000        | 0.000       | 0.000      |

Notes: * $p < .10$; ** $p < .05$; *** $p < .01$.

All four regression models are statically significant ($R^2$ ranged between 0.40 and 0.59). Overall, the model explains between 40% of the variance in the case of
attitudes to music piracy and 59% of the variance in the case of attitudes to accessing pornographic content. The Variance Inflation Factors (values ranging from 1.01 to 1.18) were well below the recommended thresholds (Segars 1997) and indicated no evidence of multi-collinearity and ensured credibility of the regression results (Yan, Wang and Liu 2014). The correlation coefficients between predicting variables are low (mostly under 0.30), with a range between 0.01 and 0.35 in the case of parent-child agreement on plagiarism and the corresponding peer pressure. The addition of “agreement between parents and children” on the ethicality of each specific online activity improved the predictive power of the four models.

H1 predicted that a parental style which encourages verbalization will make their children more ethical online. However, results show \( \beta_{\text{Music}} = -0.066; \beta_{\text{Movies}} = 0.012; \beta_{\text{Pornography}} = -0.041; \beta_{\text{Plagiarism}} = -0.069 \) that it does not affect Generation Y’s online ethics as no significant results are found. Each of the other parenting styles do affect the ethical perceptions of Generation Ys. For example, protective parenting style influences ethical perceptions of downloading movies \( \beta_{\text{Movies}} = -0.129; p<0.05 \) and plagiarism \( \beta_{\text{Plagiarism}} = -0.093; p<0.10 \). This is consistent with H2, which suggests that protective parenting improves their children’s online ethics. Similarly, strict discipline makes Generation Ys see accessing pornographic sites as less ethical \( \beta_{\text{Pornography}} = -0.062 \) which shows partial support for H3 though at a weaker level of significance. Given the relatively small sample size and the use of cross-sectional data, a significance level of \( p<0.10 \) was deemed appropriate to report. The results provide strong support for H4 \( \beta_{\text{Music}} = 0.560; p<0.01; \beta_{\text{Movies}} = 0.547; p<0.0; \beta_{\text{Pornography}} = 0.685; p<0.01; \beta_{\text{Plagiarism}} = 0.619; p<0.01 \), i.e., the stronger the agreement between parents and children on the ethicality of online activities, the more unethical they see these
activities. Interestingly, there is no parental style, which significantly influences Generation Y’s ethical attitudes toward music piracy. Finally, peer pressure has a very significant negative influence on the ethical perceptions of online activities across all four regressions, which supports H5 ($\beta_{\text{Music}} = -0.183; p<0.01$; $\beta_{\text{Movies}} = -0.296; p<0.01$; $\beta_{\text{Pornography}} = -0.212; p<0.01$; $\beta_{\text{Plagiarism}} = -0.259; p<0.01$). The greater the peer pressure, the less unethical illegally downloading movies, music, pornography and plagiarism are seen.

5. Discussion

Although theory suggests that parents and parental style should have an effect on Generation Y’s ethical attitudes, it appears from this sample that the effects are relatively small when it comes to the online environment. There are several explanations for this. First, we tentatively suggest that this is not because parents are not influential in shaping their children’s ethics, but rather that the nature of the online world, with its special netiquette, means that parental influence is reduced as Generation Y see this place as a space, which parents cannot control. In addition, parents take a limited number of steps to orchestrate the content or motives of children’s computer activity and they rarely become directly involved in that activity themselves (Kerawalla and Crook 2002). Thus, young people feel freer to participate in the online world according to their own rules and desires.

A second explanation could stem from findings that peers tend to have somewhat greater influence on the broadest array of developmental choices and on short-term (or lifestyle) developmental choices such as Internet activity. In contrast,
parents tend to have stronger overall influence over adolescents’ choices having longer-term developmental consequences such as choice of job, university or partner (Wang et al. 2007).

A third explanation stems from the idea that parenting can be seen as a form of leadership of young people’s development. We know from the leadership literature (e.g. de Vries et al. 2002, 1998; Fiedler 1967; Hersey and Blanchard 1982, 1969; Kerr and Jermier 1978) that the effectiveness of leadership style in changing subordinates’ behavior is highly dependent on the context, and in particular the nature of the individuals being led. In a parenting context, if a child has a predisposition to respond better to strict parenting style, but his/her parents adopt an encouraging and communicating parenting style, then this will be less effective in shaping the child’s behaviour. Thus, while there may still be some parental influence, because of this interaction effect, the parental influence might be attenuated.

Finally, with reference to the fact that there is no single parental style that manages to decrease the perceived ethicality of music piracy, we might consider the notion of fairness which has a role to play in psychological contract breach. A high level of perceived fairness has the potential to mitigate the degree of negative reaction to perceived contract breaches, whereas a low level of perceived fairness may compound negative reaction (Robinson and Morrison 2000). Thus, Generation Y’s perception about the unfairness of parental rules against music downloading, which is widely practiced and not perceived as unethical by peers, may account for why no parenting style had any effect on this activity.
5.1. Implications for parents and education

The fact that parenting style has no consistent or major effect on Internet related ethical perceptions has important consequences. First of all, it suggests that irrespective of how parents relate to their children, their influence is limited on how Generation Ys view ethics on the Internet. That said, parenting does affect perceived unethical activities via the degree of agreement about the ethics of a specific activity. Parents should therefore be very careful about their own perceptions of specific Internet behavior and not set up an implicit psychological contract to ‘approve’ either passively or actively certain unethical activities. A lack of sufficient communication or lack of clarity within the psychological contract is a major reason psychological contracts fail (Morrison and Robinson 1997), which suggests that explicit communication between parent and child can help to reduce the likelihood of perceived contract breach. However, the communication has to be about specific unethical activities. The very significant results for the influence of the agreement between parents and their children suggest the methodological necessity to measure family dyads and assess whether or not parents and their children’s perceptions are the same. This is in line with the recent emphasis on the importance of ‘active parents’ (as opposed to passive, ancillary helpers) in the production of educated children. As part of this role, since peer influence strongly influences how ethical illegally downloading movies, music, accessing pornography and plagiarism are perceived, the old adage about monitoring who your children’s friends are seems to be relevant in this context, as they have a potentially detrimental effect on young people’s online ethics.
A second set of implications is for education establishments. If parenting style has relatively little effect on online ethics, then other organisations may need to do more to protect themselves and educate young people rather than relying on families to resolve the issue; at least for the time being. This might suggest the tailoring of education policies and parental guidance produced by governments, Internet watchdogs and parenting organizations. Existing precedents for this were established when addressing the problems of television and children, where people argued that children need training for protection against potential harm from television advertising (Armstrong and Brucks 1988). With such training, they make more informed ethical decisions and parents are in the best situation to provide such training. During the introduction of mass TV, parental responsibility was manifested in the role parents play in the mediation and monitoring of their children’s television viewing (Becker 1964). Similar proposals might be suggested for online activities. However, these training efforts should not only focus on children, but also on their parents, as the support of parents in promoting effective education is seen as particularly crucial (McNamara et al. 2000) as they seek to define for themselves new understandings of what constitutes an “appropriate’ parental role (Vincent and Tomlinson 1997).

6. Conclusions and Further Research

In answering our original question of which parenting styles has the greatest influence on attitudes towards online unethical activities, we conclude that a protective parental style has the greatest impact. In contrast, a strict discipline style has no significant influence on ethical perceptions. Indeed overall, parenting styles
have very little general influence, but can influence their Generation Y’s ethics on specific activities. For example, young people exposed to a protective style are more likely to be ethical about online piracy and plagiarism. Of far greater influence is the positive effect of parents’ own attitudes towards specific online activities and the negative effect of peer influence.

Our study contributes to the literature in several ways. First, while technological factors have been highlighted as causes for the changing nature of Generation Y’s online ethical attitudes (Subrahmanyam and Smahel 2009; McMahon and Cohen 2009; Freestone and Mitchell 2004; Robertson, McNeill, Green and Robert 2012), the role of social factors has been neglected until now. Second, of these social factors, the importance of parents in influencing ethical considerations of children has been highlighted (Bakir and Vitell 2010) and we now know much more about their influence on the ethical attitudes towards questionable online activities. Third, since digital natives trust peers more than established data sources (Hershatter and Epstein 2010), we contribute to this debate by showing how strong peer influence is in comparison to parenting style on online ethical attitudes. Finally, by using the relatively unique research approach of parent-child dyads in our data collection, we provide important insights regarding dyadic ethical attitudes which previous research has not been able to identify (Schlegelmilch and Öberseder, 2010).

In terms of further research, although our models have good explanatory power, there are clearly other factors, which influence these differences. These could be; media usage, online usage, social environment and values, or other social influences such as the celebrity they follow or the influence of their online communities (Choi and Berger 2010). Second, since the significance of results is
confined by; the small sample size (n=163), the use of a 10% significance threshold, and a convenience sample, the generalisability of the findings are limited and further research could consider using a larger and more representative sample of parent-child pairings. Third, the study examined the influence of peers in general and future studies may disentangle the effect of off-line versus on-line peers. Finally, further research might consider assessing children’s preferred parenting style and then assess the predominant parenting style they received to refine the matching notion of parental influence we proposed.
References


Available at:


Johnston, K., Johal, P., 1999. The Internet as a "virtual cultural region: are extant cultural classification schemes appropriate?" Internet Research-Electronic Networking Applications and Policy. 9(3), 178-186.


Appendix

Additional items used in the research questionnaire

Peer influence scale

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly Disagree 1</th>
<th>Disagree 2</th>
<th>Neither 3</th>
<th>Agree 4</th>
<th>Strongly Agree 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>My friends would never download music.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>My friends would never download movies.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>My friends would never download pornography.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>My friends would never copy &amp; paste texts and pass them off as their own.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Ethical scenarios

1. **Please judge the following behaviours:**

1........ Totally wrong
2........ Wrong
3........ Don’t know
4........ Acceptable
5........ Totally acceptable

<table>
<thead>
<tr>
<th>Scenarios</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downloading music files without payment. (music piracy)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Downloading movies without payment. (movie piracy)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Accessing sites with pornographic content.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Copying and pasting texts from Internet documents and pass them off as one’s own.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>