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This article reports on a recent research project undertaken in the UK that investigated young adults' perception of potentially risky behaviour online. The research was undertaken through the use of an online survey associated with the UK teen soap opera *Being Victor*. The findings of the project suggest that this sample of British young adults were mostly aware of the risks they might encounter online and made thoughtful judgements on what they posted. However, male respondents were less safety aware than female respondents, which may be related to both societal norms for male adolescents and online safety campaigns that have been more targeted at girls. Despite previous researchers finding that girls were more likely to suffer cyber-bullying and to be cyber-bullies themselves, more male respondents reported both being bullied and bullying behaviour online. Over half of respondents had been subjected to some sort of cyber-bullying or online harassment, but 40% admitted to behaving in this manner themselves. However, 'frape' or 'Facebook rape' was considered by respondents as a reciprocal rather than bullying phenomenon. It is suggested that a focus on girls' online safety may have resulted in the message that boys' behaviour online does not need safeguards.

UK young adults' safety awareness online – is it a 'girl thing'?

Introduction

Despite an increasing use by older adults in the past few years, teens and young adults are still the heaviest users of social networking sites (SNS). Teens use SNS to stay in contact with the friends they rarely see in person, make plans with friends, make new friends and flirt. Cyberspace also provides a safe space for the identity exploration associated with adolescence. It offers a place where anxieties and problems can be shared with others undergoing similar experiences. However, in order for teens and young adults to make and deepen friendships there is a need for them to disclose personal information. Worries about teens' use of the Internet and their perceived lack of concern about privacy are frequent themes in the media. Concerns range from worries about cyber-bullying, stranger danger and access to pornography to the potential for personal information posted on the Internet to impact on employment and further education opportunities years after the event. For example, in spring 2012, the UK's *Daily Mail* ran the headline "Bait for paedophiles': Warning over 'most beautiful teen' Facebook contests where children post provocative pictures'; an article in *The Observer* warned about the 'egregiousness of cyber-bullying' (Day, 2012, 15) when discussing the case of a teen who committed suicide over comments on Twitter; the Huffington Post warned of teenagers, mainly girls, uploading videos of themselves to YouTube asking 'do you think I am pretty?' (Greene, 2012), and *The Mirror* ran a story about a teenage girl who set up a fake Facebook page in order to trick other girls into discussing their sexual

fantasies. The focus on girls was repeated in a *Daily Mail* story of 15 June 2012, which revealed 'Why fathers fear for their daughters in the age of Facebook'.

This article reports on a recent research project undertaken in the UK that investigated young adults' perception of potentially risky behaviour online. In particular the project investigated their approach to whom they allow to be 'friends' with them on SNS; the personal information they posted online and whether they were aware of the implications of such activity in the long term; and cyber-bullying. The research investigated cyber-bullying from the viewpoint of both the victim and the bully. In this context the research also investigated the idea of 'frape' or 'Facebook rape'. This is the phenomenon where a person leaves their computer unattended while logged on to Facebook and others use the opportunity to change information on their personal page, usually in order to embarrass or humiliate them. This is an issue that has not been specifically studied in previous research into young adults and cyber-bullying.

The research was undertaken through the use of an online survey associated with the UK teen soap opera *Being Victor*. The main survey was completed by 226 teens and young adults and a second related survey was completed by 105 respondents. The findings of the project suggest that this sample of British young adults were mostly aware of the risks they might encounter online and made thoughtful judgements about what they posted. Female respondents tended to be more risk-aware than male, possibly because educational initiatives have frequently focused on girls online. For example, the US-based National Crime Prevention Council

has a section on its website on Internet safety entitled 'Cybersafe Girls' but no equivalent section for boys. The UK website Supernanny.co.uk starts its section on Internet Safety with the description 'It's an instantly recognisable scene: your child rushes home from school, and then sits hunched over the computer for hours. But what is she doing online? And is she safe?', thus implying that it is girls that are at risk online. The UK parenting website Netmums illustrates its pages on Internet safety for kids with a photograph of a young girl on a laptop (<http://www.netmums.com/your-child/tweens-teens-secondary-schools/safe-surfing-on-the-internet>), as does the US-based Teenshealth website

(http://kidshealth.org/teen/safety/safebasics/internet_safety.html).

Interestingly, in 2009 the UK Girlguiding Organisations suggested that girls were too protected and therefore unable to spot online risk (Girlguiding UK, 2009).

Over half of the respondents to the survey had been subjected to some sort of cyber-bullying or online harassment, but 40% admitted to behaving in this manner themselves. It is also suggested that 'frape' was considered by respondents as a reciprocal rather than bullying phenomenon and was more likely to be undertaken by boys and those from the middle adolescence age-group.

Literature review

The Internet can provide a safe space for the identity exploration associated with adolescence. Teens and young adults can use Internet sites such as social-networking sites to form and consolidate friendships

and can also use their online representations on such sites to construct and experiment with new identities. A primary pathway to intimacy in teens is mutual self-disclosure (Davis, 2010). Teens will readily disclose personal information that older generations may find risky in order to make connections and consolidate friendships with others.

Over the past decade there has been a growing concern about the risks young adults may be taking online and the harm to which they might be exposed. A Home Office report in 2008 suggested a series of risks to children and teenagers' safety associated with the use of SNS, including bullying, harassment, exposure to harmful content, theft of personal information, sexual grooming, violent behaviour, encouragement to self-harm and exposure to racist attitudes. In 2005 the *UK Children Go Online Project* found that, of those 9 to 19 year-olds who used the Internet on a weekly basis, 57% had been exposed to online pornography, 31% had seen violent online content and 11% had seen racist content. In addition, 31% had received sexual comments online and 28% had been sent unsolicited sexual material (Livingstone and Bober, 2005).

Livingstone (2008) suggests that teenagers may have many friends online but little sense of privacy. An investigation of 700 US teenagers' MySpace pages found that 12% of the teens revealed their full name; 59% posted pictures of revealing sexual poses; 28% posted photos showing partial frontal male nudity; 17% posted photos showing partial frontal female nudity; 2% posted photos showing full male nudity and 6% full female nudity (Pierce, 2007). A similar content analysis of a random sample of teenagers' MySpace profiles found that 57% provided personal photographs, 18% discussed alcohol consumption, 16% showed images of

their friends in swimwear, 8% discussed smoking, 5% showed photographs of themselves in swimwear and 2% discussed marijuana use (Hinduja and Patchin, 2008). While such behaviours may not necessarily be associated with risk, there are concerns that they demonstrate a lack of concern about privacy – these research projects only accessed profiles freely available to all online. Pujazon-Zazik and Park (2010) point out that such risk-taking behaviours are not new. Adolescents have always sought to demonstrate familiarity with what is considered to be adult behaviour such as smoking, drinking, swearing and sexual relationships. The Internet is merely a new venue to display such behaviour, but can be associated with an increased likelihood of unwanted online attention from cyber-bullies and sexual predators.

More experience online does not necessarily translate to less risk-taking. Indeed, the *UK Children Go Online* project suggests that opportunity and risk go hand in hand (Livingstone and Bober, 2005). Pujazon-Zazik and Park (2010) found that, while younger teens disclosed more personal information online, older teens made more sexual comments. However, in contrast, Patchin and Hinduja (2010) suggest that younger internet participants (13-14) and those whose parents had discussed online safety with them tended to be more aware and active in protecting themselves online. Younger users of social media tend to be more aware of privacy issues (Madden and Smith, 2010). Investigating older adolescents, Stutzman and Kramer-Duffield (2010) suggest that a move towards a 'friends-only' profile on Facebook may signal a shift in an individual's identity orientation, away from common identities and towards common bonds.

There have been some efforts to educate teens about potential risks online, particularly by schools and parents. For example, the UK's Child Exploitation and Online Protection Centre which offers the Thinkuknow programme for children and parents. Patchin and Hinduja's research on teen behaviour on MySpace (2010) suggests that the message may now be sinking home. They compared teen profiles in 2005 with the same profiles two years later and found that teens were increasingly exercising discretion in posting personal information online and that more were limiting access to their profile, although they are posting more photographs than ever before because of technological changes. Surveys of Irish teens conducted in 2007 and 2008 by the National Centre for Technology in Education agree with this finding, suggesting a reduction in risk-taking behaviour online by Irish teens between the two surveys, with more teens keeping their SNS profiles private and fewer teens using such sites primarily to make new friends (NCTE, 2008).

Livingstone (2008) suggests that one of the reasons that there is concern about teens' safety awareness online is that teens use a definition of online privacy not linked to the disclosure of certain types of information but instead to having control over who knows what about you. She suggests that teens' notion of 'friends' is far more subtle than that available on most SNS, which is typically binary – friends or everyone. This fails to capture the varieties of privacy teens wish to sustain. Being visible to strangers is not so much of a concern as being visible to inappropriate others, i.e. parents. Teens can be more concerned about

people in direct authority to them, for example parents and teachers, seeing their use of SNS than they are concerned about their data being accessed by more abstract authorities such as governments, universities or large corporations (boyd and Hargittai, 2010; Raynes-Goldie, 2010). Thus Livingstone suggests a mismatch between technological affordances and teenage conceptions of friendship. She suggests that teenagers' use of the privacy settings of SNS is limited by two main factors: the fact that their notions of friendship are much more subtle than those allowed by SNS and their limited internet literacy, which means that they are not capable of fully using or understanding the interface design. Debatin et al (2009) point out that unless users experience personal consequences they believe that the benefits of public participation outweigh potential consequences while Hoofnagle et al (2010) suggest that a high proportion of teens and young adults may believe incorrectly that the law protects their privacy online more than it actually does.

In addition, a number of studies suggest that the 'stranger danger' factor online has been exaggerated. Tynes (2007) goes so far as to describe it as a moral panic created by the media and linked to fears that adolescents, particularly girls, are no longer under the full control of their parents when online. There has actually been a decrease in the online sexual solicitation of teens over the past few years and most online sexual solicitation of youths comes from family members, friends and peers, not strangers (Pujazon-Zazik and Park, 2010; Tynes, 2007). In addition, most teens use the Internet to keep in contact with friends locally and have minimal interest in making contact with strangers (Livingstone, 2008).

Cyber-bullying is the use of electronic media to bully or harass an individual. It can be more anonymous than traditional bullying, which can be appealing to the would-be bully. Online bullying is also not limited to one time or place (for example school). Many individuals who cyber-bully see it as funny and entertaining, and do not fully realise the effect it can have on their victim (Pujazon-Zazik and Park, 2010). Some studies have found that girls are more likely to be the victims of cyberbullies than boys (Pujazon-Zazik and Park, 2010; Smith et al, 2008). Different studies have found different rates of cyberbullying among teenagers, with rates ranging from 4% (Ybarra and Mitchell, 2004) to as high as 72% (Juvonen and Gross, 2008). As far as the UK is concerned, research by the UK's Anti-Bullying Alliance (Smith et al, 2006) suggested that up to one in five schoolchildren had experienced some form of cyber-bullying and agreed that girls were significantly more likely to be subject to such bullying. The UK government Department for Children, Schools and Families responded to this report in 2007 by publishing guidelines to help schools, parents and pupils deal with cyber-bullying. The most recent figures for the UK come from Beatbullying's Virtual Violence II report, published January 2012, which suggested that 28% of all 11-16 year-olds have been deliberately targeted, threatened or humiliated by an individual or a group through the use of mobile phones or the Internet. Of those respondents reporting persistent cyberbullying, 26% said that it started online rather than transferring from offline behaviour.

Some differences between the sexes have been discerned as far as teens' Internet safety is concerned. Girls are more likely than boys to restrict access to their profiles (NCTE, 2008; Patchin and Hinduja, 2010; Thelwell,

2008). However, they are more likely to have posted photographs of themselves and their friends on their profiles whereas boys were more likely to reveal where they lived, suggesting that girls are more concerned about the release of information that could be linked to their physical location (NCTE, 2008; Lenhart and Madden, 2007). The study of Irish teens in 2008 suggested that boys were more likely to meet offline someone they had originally met online. Boys' openness to meeting new contacts offline could be linked to the finding of the Pew Internet and American Life Project (Lenhart and Madden, 2007) that boys are more likely to use SNS to make new friends whereas girls use SNS to talk to current friends. Although gender differences in Internet access and skill level are reducing, there are still suggestions that Internet use can be different with girls being more interested in the relational aspects of social media (Barker, 2009). The Irish project also suggested that boys were more likely to receive harmful posts – which is in interesting contrast with the research given above related to cyberbullying (NCTE, 2008). In contrast, Hinduja and Patchin (2010) found that heterosexual boys and young men were least likely to be cyberbullied (16%) and the most likely group to be cyberbullied was lesbian and bisexual girls and young women (38%). boyd and Hargittai's (2010) investigation into students at the University of Illinois, Chicago suggested that young women are uncharacteristically confident in their ability with privacy settings and more engaged in them than young men. They suggested that the ongoing public messages on the subject of privacy targeted at women may explain such confidence.

Methodology

In autumn 2010 the live-action teen drama *Being Victor* was broadcast in the UK, firstly online via MTV.co.uk as 20 ten-minute episodes and then via the Scottish television network STV as six longer episodes. Prior to the broadcasts a blog and Twitter account for the main character, Victor Dupre, went live in July 2010. *Being Victor* was produced by Shed Media Scotland and was a teen soap opera set in Glasgow. The project operated on several digital platforms using a variety of mediums to engage audiences as well as telling the story. The show aimed to raise issues that young people dealt with on a day-to-day basis such as sexual health and online safety. As part of the online delivery, readers of Victor's blog were invited to find out 'How safe are you online?' by participating in a survey about online privacy and risk-taking.

This survey was designed to investigate issues such as assessment of risk online, concerns about online privacy and risk-taking behaviour online. 226 respondents completed the quiz (105 female and 121 male). The majority of respondents (175) were over the age of 16 with 100 indicating that they were over 21, but a small group were from younger age groups (18 10-13 year-olds and 33 14-16 year-olds). All respondents were from the UK – 135 from England, 77 from Scotland, 10 from Wales and 3 from Northern Ireland. The high proportion from Scotland can be explained by the fact that the programme was also broadcast on terrestrial television there.

A smaller sub-group of 105 of the respondents completed an additional survey further investigating their risk-taking behaviour online including

issues such as posting personal information and photographs, bullying and harassment and 'fraping'. All questions in both sections of the survey were closed for speed of response time and at the end of the survey respondents were informed of their 'safety awareness' score. Points were awarded for each unsafe behaviour (as identified by the secondary literature) the respondent admitted to having undertaken. For example, points were given for behaviours such as posting full address; posting photographs of the respondent or their friends partially clothed; posting photographs of themselves drinking; adding friends without knowing them offline. Points were also given for any bullying behaviour the respondent admitted to, for example, sending threatening messages online or fraping someone. Overall, possible scores ranged from 0 to 38 with the mean score for all respondents being 9. Those who had achieved higher scores were encouraged to visit other parts of the website, for example the discussion groups, to educate themselves about the issues raised.

Findings

Working in tandem with the themes of the soap opera, the main survey focused on issues of privacy and online risk-taking behaviour such as accessing pornography and contacting strangers.

As noted above, scores for participants' 'safety awareness' ranged from 0 to 38 with a mean score of 9. However, it is noticeable that the female respondents were overall more safety aware than the males. Female respondents had a mean score of 6.8 while male respondents' mean score was 10.5.

The respondents were first asked about their privacy settings on social networking sites. The majority of respondents (60%) stated that they made use of privacy settings and that only those identified as 'friends' could see their personal information, although just under half of this group admitted that they had 'a lot of friends'. Differences between the sexes can be discerned here with 50% of female respondents but only 23% of male respondents describing themselves as selective about who could see their information and with 14 male respondents admitting to having no privacy settings at all – in other words anyone could see their information – in comparison to a single female respondent. Figure 1 shows the response to this question broken down by gender.

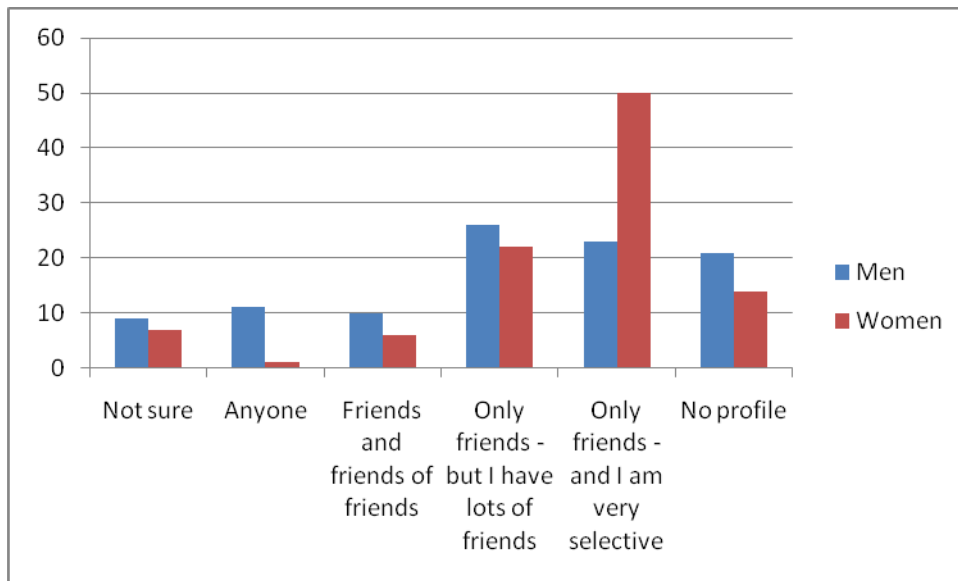


Figure 1 Male and Female responses to the question 'What are your privacy settings on social-networking sites?' (by percentage)

8% of respondents were unsure what their privacy settings were, which may be related to the confusion caused by the many changes to privacy settings undertaken by social networking sites over the last few years. In addition, 18% of respondents stated that they had no profile on social

networking sites at all. In terms of gender this group made up 21% of all male respondents and 14% of all female respondents. They tended to come from the older groups of respondents – only 12% of respondents between the ages of 10 and 16; 21% of respondents between 17 and 21 and 18% of those over the age of 21. Given the nature of the survey it is not surprising that these respondents also tended to achieve the lowest scores in terms of their online risk-taking with their mean score being 4 in comparison to the general mean of 9 and with six respondents achieving a score of 0 (a score only achieved by eight respondents overall).

Respondents were asked whether they were aware that prospective employers and colleges and universities now routinely check out applicants online. 63% of respondents were aware of this. Of the others, 25% stated that they had not been aware of this but would now change their behaviour online while 12% had not been aware of this but would not be changing their behaviour. Again gender differences could be found here with 71% of female respondents being aware of such checking in comparison to only 56% of male respondents. 63% of female respondents stated that they were careful with what they posted online because of the possibility of such checking in comparison to 36% of male respondents, and male respondents were more likely to state that they did not care and would not be changing their behaviour (36% in comparison to 16%). There were also slight differences to be discerned between different age groups, with the oldest and youngest groups of respondents – those over 21 or between 10 and 13 – being more likely to state that they were aware of such checking and were careful (57% and 50% respectively) while only 40% of those between 14 and 21 stated the same. Given that it

is this age group which is more likely to be applying to further or higher education institutions or for jobs, this lack of awareness is concerning.

Perhaps not surprisingly, differences between the sexes were also found in response to the question 'Have you ever accessed porn online?'. 82% of male respondents admitted to having accessed pornography online in comparison to 39% of female respondents. The 82% of male respondents consisted of 13% who stated they had accessed porn by mistake; 52% who had accessed porn knowingly but had not paid for it; and 17% who had paid for access to online porn. In comparison, of the 39% of female respondents who had accessed porn online, 10% had done this by mistake, 19% had accessed free porn online and 10% had paid for access to porn.

It should be noted that 51 of the 226 respondents were between the ages of 10 and 16. Of these respondents, just over half stated that they had accessed porn online although 11 stated that this had been by mistake and only 4 had paid for it.

Differences between the sexes were also found in response to the question 'If you have been contacted by a complete stranger online, what did you do?' Female respondents were more likely to have had this occur, with 67% of female respondents stating that they had been contacted by a stranger in comparison to 47% of male respondents. This may be connected to the ways people of different genders consume social networking sites – if girls are more inclined to use the technology for networking then it is perhaps not surprising that they are more likely to

be contacted by a stranger. There was some indication in the accompanying discussion forum that such contacts were assumed to be for sexual reasons, with one female poster stating:

I hate when ppl (lets face it, mainly OLD MEN) try n make friends with me online. WHY wud I be there friend?!

76% of female and 59% of male respondents who had been contacted by someone who was unknown to them stated that they simply ignored and deleted the message. However, some respondents had responded to the email, either to find out more (24% of the male respondents who had responded and 11% of females) or to tell the stranger to leave them alone (10% of males and 7% of females). A very small group (4%) had reported the contact. Breaking the figures down by age group is helpful. Perhaps not surprisingly, the two younger groups of respondents (the 10-13 and 14-16 year-olds) were far more likely to have told someone in authority about the contact (17% and 18% respectively in comparison to only 3% and 1% for the older age groups). 61% of the 10-13 year-olds had never been contacted at all, which in itself is significant in the light of moral panics around the grooming of children online, while only one-third of the rest of the respondents could say the same. The oldest age group (over 21) were far more likely to ignore and delete the contact than any other group, with 51% of this group taking this approach in comparison to 40% of 17-20 year-olds and 30% of 14-16 year-olds.

Again the discussion forum offers more insight into the possible motivations of those who chose to engage in the more risky behaviour of responding to a stranger with one female poster stating:

I met my bf online! I wasn't lookin fr anythng special, but he left a comment one day, and we got chatting. After a 6 mnths we agreed to meet up, I ws nervous but told my bst m8 where I was going. He turned out to b even better than what I ws expecting! Still togever after 3 months! 😊))

In response to another poster's comment

That was dum. I wudnae trust any online folk. It won't last!

She stated:

What wud you no!? + anyway, I have a pal who met smbdy on myspace and MARRIED him- that was 2 Yrs ago! So u no nothin! Yr just jealous! 😞

As outlined above, 105 respondents to the main quiz also answered more in-depth questions on their behaviour online. Firstly their attitude towards how they chose who could become a friend on a social networking site was explored. Overall almost half of the respondents (49%) stated that they would have to know the person offline, although not necessarily see them every day. Only 17% were happy to accept people that they did not know personally but were friends of their friends and 9% would be-friend 'anyone'. Figure 2 shows the responses to this question broken down by gender. Interestingly, female respondents were happier to use social networking sites to communicate with friends they did not see on a regular basis. Work on differences between men's and women's friendships suggests that 'girls are more focused on intimate close friendships whereas boys spend more time in larger groups and base their friendships on shared activities' (Valkenburg et al, 2011, 255). Lenhart and Madden (2007) suggest that while girls make use of online sites to invest in current friendships, boys are more likely to seek out new friendships. Social networking sites offer girls the opportunity to further deepen intimate friendships with other girls despite the fact that they are

not in face-to-face contact with them while boys are more likely to use SNS to keep in contact with those they see on a regular basis.

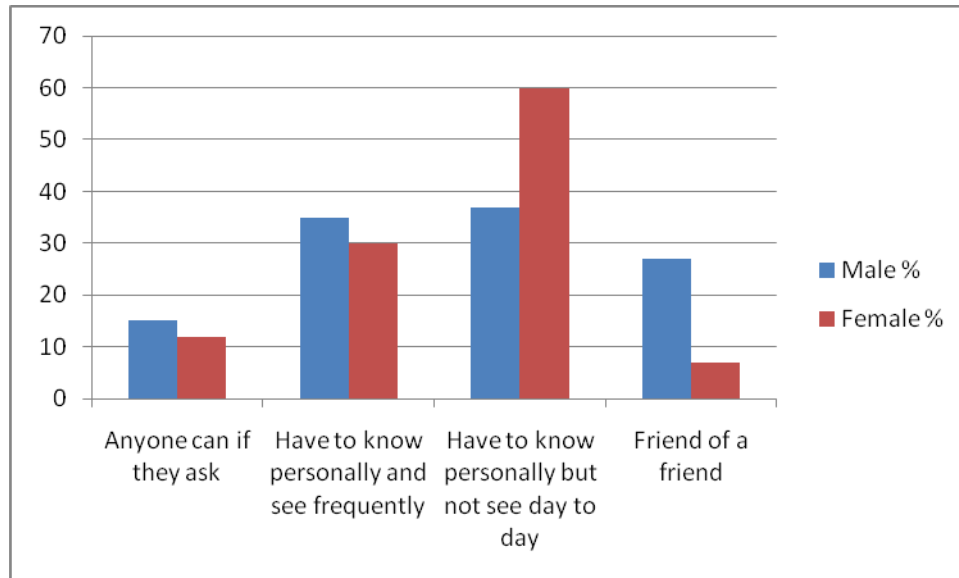


Figure 2: Male and female responses to the question 'How do you decide who can become your friend on a social networking site?' (by percentage)

Again the discussion on the related discussion forum gave further information about one female poster's approach to assessing someone who wanted to be their friend but they did not know personally.

If someone wants to friend me on fb I check to see if they have lots of photos. If they do, and they're obviously of the same person, then they're probably real! I wouldn't give out any personal details tho.

This poster was evidently more concerned about the 'realness' of the potential friend contacting her rather than whether or not she knew them in real life, implying that she was aware of the discussion of the potential risks associated with predators on social networking sites but associated such potential risk with the use of fake identities, which she felt she had the ability to discern. It is interesting that she also states she would not give out any personal information to such people – but if she makes them

a friend on Facebook then, depending on her privacy settings, they may have access to such information.

The survey then moved on to consider concerns about privacy online. Respondents were asked about whether they had concerns related to who saw their personal information online. As can be seen from Figure 3, most concern was caused by the idea of strangers accessing this data, with 57% respondents admitting concerns about this. A third of respondents were also concerned about their parents, people they knew but who were not their friends, future employers and businesses accessing their personal information.

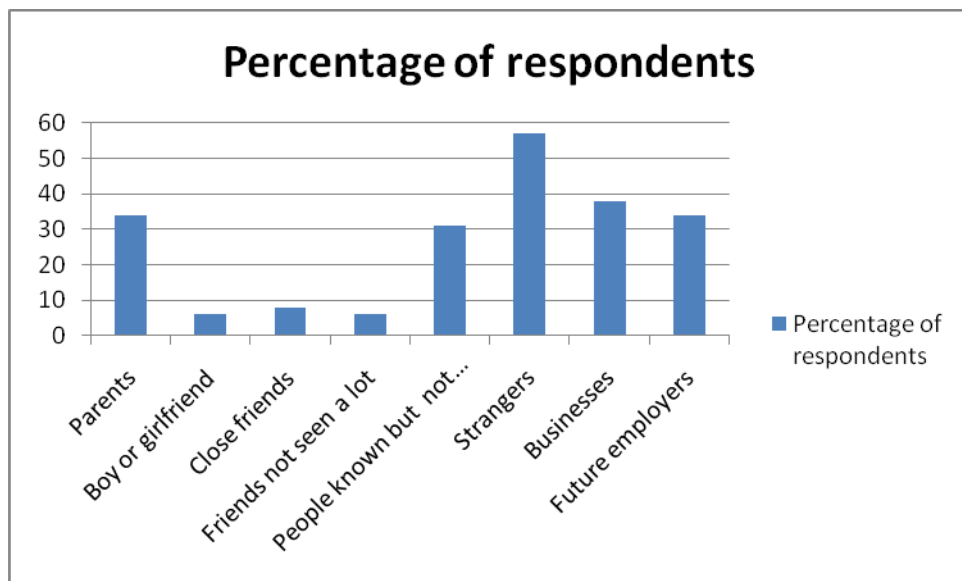


Figure 3: Responses to the question 'Do you worry about anyone seeing your personal information online?'

It should be noted that all but one of the respondents who were concerned about their boy or girlfriend seeing their personal information were male and that male respondents were also far more concerned about their parents accessing this information (44% in comparison to 21%).

Respondents were asked about material they might have posted to a social networking site that had been deemed risky by earlier research (as cited above). Such risky material encompassed: their full name; full address; name of their workplace, university or school; pictures of themselves and pictures or descriptions of themselves or friends indulging in behaviour such as drinking, smoking, taking drugs, sexual activity and partial or full nudity. It should be noted that some of this information, for example name, school or university, place of work, and a photograph is part of the basic proforma that new members of social networking sites complete on joining and although most of the information is optional they are encouraged to add as much of this type of information about themselves as possible in order that their 'friends' can identify them easily. As a poster on the discussion forum pointed out:

I thnk if yur on facebook, n lets face it- most ppl are, then you have to accept things ar gonna get seen. Its still better than being a cyber hermit.

It is therefore not surprising that 61% of respondents had provided their full name and 74% provided a photograph of themselves. An additional 51% provided details of their place of work, school or university.

There did, however, seem to be some comprehension of risk when other types of behaviour were considered. Only 17% had posted photographs of themselves or friends partially clothed and only 9% had posted their full address. Whilst a third – 33% – had posted photos or descriptions of themselves or friends drinking, only 7% had posted photos or descriptions of themselves or friends smoking or indulging in sexual acts, and only 5%

had posted photos or descriptions of drug taking. There were few differences between the sexes here, although the male respondents were more likely to post photographs of themselves partially naked or drinking (21% and 37% in comparison to 12% and 26% for female respondents), which may be related to the wider cultural acceptability of such behaviour in adolescent males in the UK – the so-called ‘double standard’ (Kraeger and Staff, 2009; Petersen and Shibley Hyde, 2010).

Finally the survey investigated risky behaviour specifically related to being online. Respondents were firstly asked whether anyone had: spread an untrue rumour about them online; posted embarrassing photographs of them online without asking their permission; sent them a threatening message online; forwarded or posted something without their permission; or ‘fraped’ them. 60% of the respondents reported at least one of these happening to them. The results, divided by gender, are given in Figure 4 below.

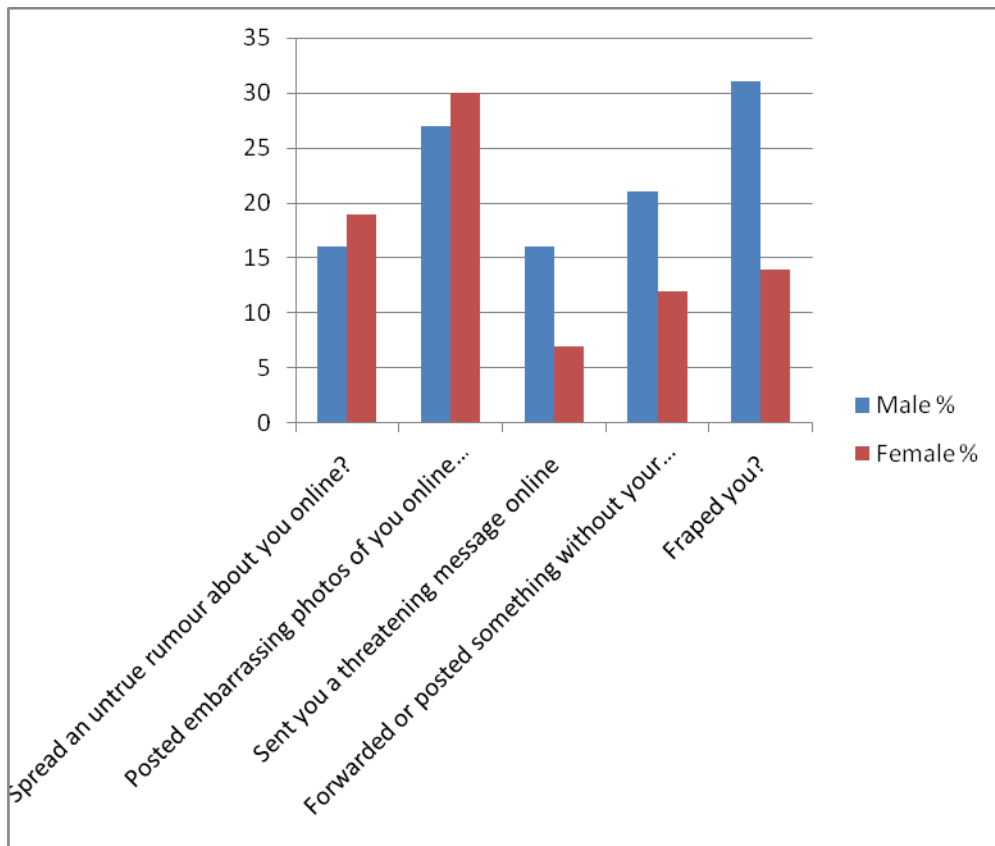


Figure 4: Male and female responses to the question 'Has anyone ever done the following to you online?' (by percentage)

Respondents were then asked whether they had undertaken any of these behaviours to anyone else online. 44% of respondents admitted to having done at least one of these. The findings, divided by gender, are given in Figure 5.

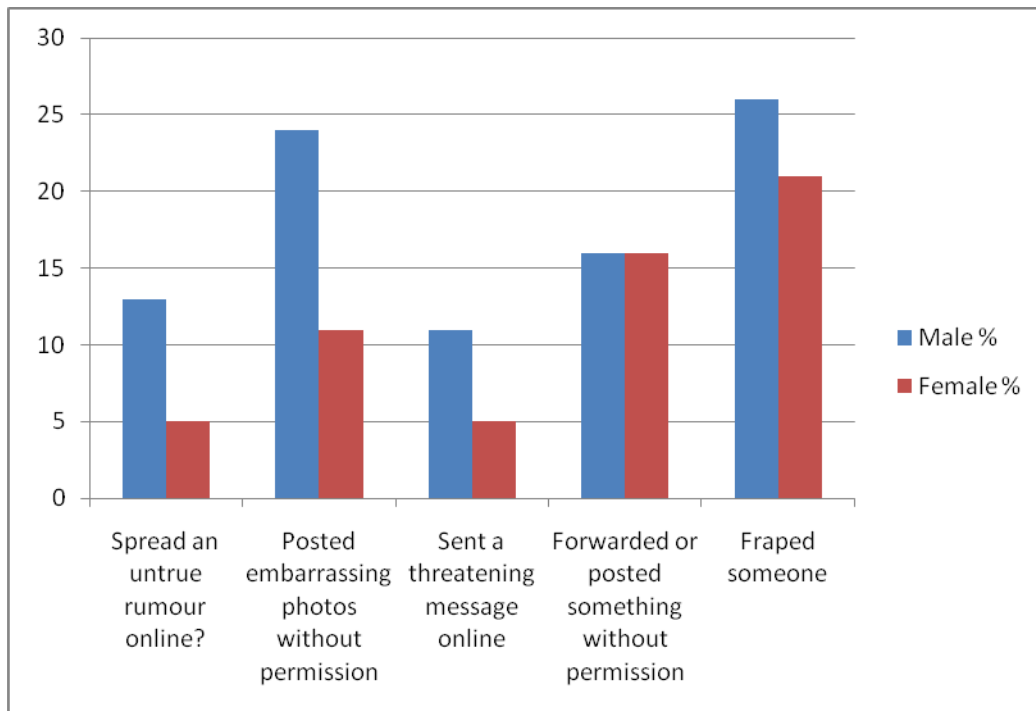


Figure 5: Male and female responses to the question 'Has you ever done the following online?' (by percentage)

Looking more closely at the issue of 'frape', those respondents who had been fraped were compared to those who had fraped others. All but four of the respondents who had been fraped admitted to fraping others, suggesting that this is a reciprocal behaviour. This group's risk scores were also particularly high, with a mean of 17 in comparison to the whole group's mean of 9, again suggesting that frape was one of many risky behaviours that they engaged in online. In comparison, only half of those respondents who admitted sending a threatening message online had received such messages and only a quarter of those who had received such threats had also sent them. This seems to imply that 'frape' is a more reciprocal behaviour that may not be perceived as particularly risky or bullying in comparison to more specific threats. Breaking the frape data down by age group also suggests that it is a behaviour associated with middle adolescence. One-third of of respondents aged between 14 and 20 had both been fraped and had fraped others in comparison to 3

respondents in the 10-13 age group who had been fraped and 2 who had fraped others and similarly 3 respondents who had been fraped and 5 who had fraped others in the over-21 age group.

Discussion

Differences between male and female respondents' online safety awareness were discernable at many stages of the survey. Female respondents were more aware of the potential impact of their postings on future careers; more careful about whom they made friends with online; less likely to access pornography online and less likely to post photographs or descriptions of themselves or their friends indulging in risky behaviour. Male respondents were more likely to not know what their privacy settings were and not to know that prospective employers and universities might check out applicants online and more likely to state that they did not care and would not be changing their online behaviour. They were also much more likely to access pornography and (possibly related!) more likely to be concerned about their parents (and in some cases their girlfriends) seeing what they posted online. The overall mean safety-awareness score of female respondents was lower than that of the male respondents.

It has been suggested that the ongoing public messages on the subject of privacy have primarily been targeted at girls and women and thus women are far more safety-conscious online (boyd and Hargattai, 2010). This is certainly true of these respondents. Such differences may also be rooted in social norms both on- and offline. Behaviour such as accessing pornography, indulging in public drinking or displays of partial nudity is seen as more acceptable for males than females, particularly during

adolescence. In contrast, girls are expected to behave with more decorum and to act to protect themselves from potential aggressors – who are assumed to be sexual. The comments by one of the female posters on the related discussion forum demonstrate that she saw a stranger trying to make contact with her online as a 'dirty old man' while another found her boyfriend by making friends with him online. Thus motivations for contacting unknown women online were assumed to be sexual in nature. It is worth noting that more girls than boys had been contacted by a stranger online. However, girls were also happier than boys to use social networking sites for communication with people that they did not see regularly offline. Previous studies such as Barker (2009) and Pew Internet and American Life Project (Lenhart and Madden, 2007) suggest that girls are more interested than boys in the relational aspects of social media, while the NCTE study of Irish teens found that boys were more likely to meet offline someone they had originally met online. Certainly the female respondents to this survey used SNS primarily to communicate with specific friends while the male respondents were more open to communicating with strangers or friends of friends and more open to meeting offline people they had made friends with online. Such findings can be linked to earlier research into gendered differences in friendships.

One of the reasons that public messages about safety online have been targeted at girls is that previous research has found that they were more likely to be the victims of cyber-bullying (for example, Hinduja and Patchin, 2010; Livingstone et al, 2011; Pujazon-Zazik and Park, 2010; Smith et al, 2008). The UK's Anti-Bullying Alliance (Smith et al, 2006) suggested that up to one in five schoolchildren had experienced some

form of cyber-bullying and that girls were significantly more likely to be subject to such bullying. However, this project suggests that boys are *at least* as at risk of cyber-bullying than girls, and in particular more male than female respondents had been 'fraped' and received threatening messages online. Male respondents were also more likely to have engaged in such bullying behaviour online – again in direct contradiction to previous research that has suggested that girls might be more involved in such indirect forms of aggression. Those respondents who admitted to sending online threats did not necessarily receive them. This was classic bullying and not reciprocal behaviour. In contrast, those who fraped others had also been fraped themselves, suggesting that this behaviour was more reciprocal. Those who were involved in fraping were also likely to score highly as far as other risk-taking behaviour online was concerned, suggesting that frape was one of many risky behaviours they undertook online.

Those respondents who had been involved in fraping also primarily came from the middle adolescence age-groups. Respondents from this age group were also more likely to respond to contact from someone unknown to them and were less likely to be concerned about the possibility of future employers or educational institutions checking them out online, despite the fact that this age-group is the most likely to be applying to university or for their first jobs. Risk-taking behaviours form part of adolescents' identity-formation as they copy what they consider to be adult behaviour, and the Internet is merely a new venue to display such behaviour. However, it is clear that for a substantial minority of this age-

group the message about being careful about what you post online is not getting through.

Finally, given the assumptions about the ubiquity of social networking site use among adolescents in both the media and research on the subject, the fact that a comparatively high percentage of respondents did not have a profile on any social networking site is interesting. Such a lack of use can not be because of any techno-phobia since the respondents were completing the survey online, having accessed it via a blog and presumably because of an interest in an online TV drama. Their reasons for not having a profile were not probed further by this research and so it is not possible to ascertain whether they had had a profile at one time (and had then deleted it, possibly because of the publicity about privacy issues) or had never had one. Given that the majority of this group were in the older age range the reason can presumably not be parental bans and must have been an issue of choice.

Conclusions

The findings agree with previous research projects that paint a picture of comparatively high safety-awareness amongst young adults online. The majority of respondents made careful decisions about online friends, were aware of the possibilities of others seeing their personal information online and used privacy settings on social networking sites. However, the very use of such sites required the sharing of personal information such as name and university or school and therefore in order to make full use of social networking sites, and not be a 'cyber hermit', users have to make pragmatic choices about how much personal information they post.

Female respondents were more aware of potential risk-taking behaviour and more careful about their privacy settings and what they posted. They were also more likely than male respondents to have been contacted by a stranger but less likely to have pursued that contact. This confirms the findings of Lenhart and Madden (2007) that girls use SNS to talk to their friends and boys use it to make new friends. Male respondents were less safety aware than female respondents, which may be related to both societal norms for male adolescents and online safety campaigns that have been more targetted at girls.

In addition, despite taking precautions, over half of respondents had been subjected to some kind of cyber-bullying. Despite previous researchers finding that girls were more likely to suffer cyber-bullying and to be cyber-bullies themselves, more male respondents reported both being bullied and bullying behaviour online. 'Frape', however, seemed to be more a reciprocal than a classic bullying behaviour. More research is needed into this particular online behaviour and it is also needs to be discussed more widely by educators, young adults and their parents. More research is also needed into boys' online safety awareness, particularly during the years of middle adolescence, but this project raises the issue that a focus on girls' online safety may have resulted in the message that boys' behaviour online does not need safeguards.

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