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RESEARCH ARTICLE

Protecting vulnerable young people in cyberspace from sexual abuse: raising awareness and responding globally

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This paper explores the danger that young people may be exposed to when using the Internet. The first part sets out the context by considering new developments in UK and international legislation and then explores educational moves to protect children. Focus is upon findings from research undertaken on behalf of the London Metropolitan Police Service in evaluating the Safer Surfing programme designed to enable young people's safe Internet use. In the final part of this paper it is argued that more must however be done internationally both to protect children online and to curb the growing trade in indecent child images.

Keywords: Internet safety; online grooming; child abuse; Internet policing; cyber abuse; knowledge management

The context of online abuse

Internet use has grown considerably over the last five years; information technology now forms a core part of the formal education system in many countries, ensuring that each new generation of Internet users is more adept than the last. Research conducted in the UK by Livingstone and Bober in 2004 suggested that the majority of young people aged 9–19 accessed the Internet at least once a day. The Internet provides the opportunity to interact with friends on social networking sites such as MySpace and Bebo and enables young people to access information in a way that previous generations would not have thought possible, the medium also allows users to post detailed personal information, which may be accessed by any site visitor and provides a platform for peer communication hitherto unknown. There is however, increasing evidence that the Internet is used by some adults to access children and young people in order to '*groom*' them for the purposes of sexual abuse; MySpace have recently expelled 29,000 convicted sex offenders and is being sued in the USA by parents who claim that their children were contacted by sex offenders on the site and consequently abused (BBC Online, 25 July 2007). The Internet also plays a role in facilitating the production and distribution of indecent illegal images of children (Davidson & Martellozzo, 2004; Quayle & Taylor, 2003).

Internet sex offender behaviour can include: the construction of sites to be used for the exchange of information, experiences, and indecent images of children; the organization of criminal activities that seek to use children for prostitution purposes and that produce indecent images of children at a professional level; the organization of criminal activities that promote sexual tourism. Indecent images of children are frequently shared by sex offenders using the Internet and the industry in such images is becoming increasingly large

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and lucrative (Wyre, 2003). Taylor, Holland, and Quayle (2001) suggest that some online sex offenders are 'collectors' of indecent images of children who routinely swap images with other collectors, it is also suggested that some of these images are photographs taken by people known to the children such as members of their family (Interview, Metropolitan Police HTCU; Interview, Quayle, 2006 cited in Davidson, 2007) although at present there is little empirical evidence to support this claim and more research is needed. Quayle and Taylor (2003) comment on the possible motivations of online child sex abusers. It is suggested that sex offenders perceive the Internet as a means of generating an immediate solution to their fantasies. Factors including presumed anonymity, disinhibition, and ready accessibility, undoubtedly encourage offenders to go online. Quayle and Taylor (2003) also acknowledge, however, that the unique structure of the Internet may play a major role in facilitating online child abuse. Recent research conducted with practitioners from the National Probation Service suggests that sex offenders' Internet use is frequently not limited to abuse and that the Internet often plays a significant role in other areas of their lives, including networking with other adults and online shopping for example (Davidson, 2007).

Legislation and protecting children online

Recent legislation has sought to protect young people from Internet abuse through the introduction of a '*grooming*' clause. This new offence category was introduced in the Sexual Offences Act 2003 in England and Wales (this section of the Act also applies to Northern Ireland[1]): section 15 makes '*meeting a child following sexual grooming*' an offence, this applies to the Internet, other technologies such as mobile phones, and to the 'real world.' '*Grooming*' involves a process of socialization during which an offender seeks to interact with a child (a young person under 18 in Scotland, England, and Wales), possibly sharing their hobbies and interests in an attempt to gain trust in order to prepare them for sexual abuse. Several countries are beginning to follow the UK in legislating against 'grooming' behaviour. Sexual grooming has also recently been added to the Crimes Amendment Act 2005 in New Zealand. In the USA it is an offence to electronically transmit information about a child aged 16 or under, for the purpose of committing a sexual offence (US Code Title 18, Part 1, Chapter 117, AS 2425). The Australian Criminal Code (s218A) makes similar restrictions as does the Canadian Criminal Code (s172.1). The legislation in the UK differs in that the sexual grooming offence applies both to the Internet and to the '*real world*'; legislation in other countries addresses only electronic grooming via the Internet and mobile phones.

The concept of sexual grooming has in reality been drawn from the sex offender literature where it is well documented (Finkelhor, 1984), into legislation and is now filtering into policy and crime detection and prevention initiatives. Considerable efforts have already been made to increase online child protection internationally. The G8 countries[2] have agreed to a strategy to protect children from sexual abuse on the Internet. Key aims include the development of an international database of offenders and victims to aid victim identification, and offender monitoring and the targeting of those profiting from the sale of indecent images of children. Internet service providers and credit card companies, such as the UK's Association for Payment Clearing Services, have also joined the international movement against the production and distribution of sexually abusive images of children online. Their efforts have focused primarily on attempting to trace individuals who use credit cards to access illegal sites containing indecent images of children. There has also been an attempt to put mechanisms into place which would prevent online payment for illegal sites hosted outside the UK.

Organizations like the Virtual Global Taskforce (VGT), the Internet Watch Foundation (IWF),[3] and the Child Exploitation and Online Protection Centre (CEOP) in the UK, are making some headway in attempting to protect children online. VGT is an organization that comprises several international law enforcement agencies from Australia, Canada, the USA, the UK, and Interpol. Through the provision of advice and support to children VGT aims to protect children online and has recently set up a bogus website to attract online groomers. Many police forces in the EU, Canada, and the USA are working to trace Internet sex offenders and their victims. In the UK, national and local High Technology Crime Units currently investigate the grooming of children on the Internet and indecent online images of children. Successful prosecutions have been brought under the acts in the UK, both for 'grooming' online and for the possession of indecent Internet images on the Internet following Operation Ore. This operation was launched following information provided to the UK police by the FBI in the USA, regarding peer-to-peer technology in sharing indecent images of children. The National Crime Squad has made several thousand convictions since 2002 under Operation Ore.

Educational context of Internet safety

Police–school partnerships

Children and young people make extensive use of the Internet using interactive services such as games, chat rooms, and instant messages. Calder (2003) emphasizes the importance of encouraging appropriate and safe use of the Internet by assisting children and young people to feel comfortable navigating the information highway. Technology, it is suggested, should be combined with education to raise awareness amongst children, parents, and teachers, and to promote effective inter-agency partnership working.

Some researchers have suggested that all children should undertake life skills education programmes at school on appropriate and inappropriate sexual behaviour (Anderson, 2003); such programmes could incorporate Internet safety. This study suggests that not enough is currently being done in the UK to educate children about sexual abuse, or to safeguard them from the dangers of the Internet. Indeed, the Institute for Public Policy Research (Stanley, 2004) suggests that there is a need for greater cooperation between the government, the police, and schools in properly protecting children from sexual abuse. With the explosion of illegal child abuse images over the Internet on the increase and the inherent difficulties from a legislative point of view in identifying and successfully prosecuting offenders it becomes imperative that a strong educational focus on safety-proofing children against such images, as far as possible, is where the emphasis needs to be placed by governments. In other words, the focal point should be the management of the 'online environment' in which children can potentially be 'trapped' and become victims through risk of being exposed to abusive images and/or to being groomed.

The field of Knowledge Management (KM) (Prusak, 2001; Wiig, 2000) has much to offer in this regard. KM by its very nature is a field made up of many disciplines from Information Technology, Information Science, and Artificial Intelligence through to Business, Management, and Organizational Studies to Social, Group, Educational, Cognitive Psychology, and some areas of Philosophy (Barclay & Murray, 2000).

For our purposes here what is important from a KM perspective is the view that 'knowledge' cannot be 'managed' (Anderson, 2003; Brown & Duguid, 2001; Chia, 2003; Tsoukas & Mylonopoulos, 2003; Tsoukas & Vladimirou, 2001) in the mechanistic way envisioned by IT hardware and software systems and by the addition of parental control techniques to software and hardware. Rather the only thing that can be 'managed' is the 'context' in

which 'knowledge' occurs (Dean & Gottschalk, 2007). It is suggested that it is preferable to raise awareness amongst young people about the potential dangers they may encounter online, than to attempt to monitor their online behaviour. This point is particularly relevant for teenage users who may resent any such action and who may well have sufficient computing knowledge to disable any such controls.

Hence, a strategic partnership between police and educational agencies like schools and parent groups forms part of the online environmental context that must be managed well through establishing quality safety programmes for children and young people. Therefore, this study sought to explore the extent to which the first interactive Internet UK safety programme designed by the Metropolitan Police was effective in raising children's knowledge about Internet safety.

The Metropolitan Police Safer Surfing programme

The Metropolitan Police programme differs from other educational Internet programmes in that it is interactive and delivered directly to children in schools; it is unique in this respect. The programme was designed in 2002 for use with 12- to 14-year-old children[4] as this age group has been identified as active, independent users of the Internet (O'Connell, 2003). The programme aims to: encourage safe use of Internet chat rooms and interactive games amongst school children; to outline the potential dangers of talking online to 'virtual friends' via an interactive session; to educate children about strategies for safe use of the Internet via an interactive session using a mnemonic (S – secrets don't keep them; A – attachments don't open them; F – false don't believe them; E – exit don't stay there; R – remember public chat rooms and no personal details); to educate children about the dangers of opening attachments coming from unreliable sources as they may be containing illegal and damaging material; and to educate parents about safety issues and strategies via educational information and presentations.

The programme is interactive and delivered by two Safer Schools Officers to small groups of children in classrooms.[5] The session begins with a short introduction where children are encouraged to discuss their use of the Internet. This is followed by a chat room exercise which involves a live link to a Safer Schools Officer in an adjacent room. Children believe they are talking online (via a laptop computer controlled by the Safer Schools Officer) to a 13-year-old child (Nadia). Children are asked to provide questions to put to the fictitious child in the chat room. A link is provided to a website containing information about the fictitious child and the children are asked if they would like to meet her. The children are later introduced to the police officer who played the role of the child.

Research methods

This section of the paper briefly describes the purposive sample used as well as the nature of the semi-structured interviews. The first stage of the research sought to explore the context in which the police and schools work to educate children about sexual abuse and Internet safety. This issue was explored via a literature review and semi-structured interviews with a small sample of Safer Schools Police Officers, teachers and head teachers in London schools (18). Findings from this element of the research are clearly limited given the small sample size. The second stage of the research sought to explore children's experiences on the Internet and to evaluate the effectiveness of the Metropolitan Police Safer Surfing programme. A non-random, convenience sample of 188 children aged 10–14 participated in observations of programme delivery. The observational data provided a valuable

insight into programme delivery; children's response and children's Internet use. The research was conducted in nine schools in three London boroughs from March to December 2004. A stratified, convenience sample of children was used in order to reflect the diversity of the boroughs and the schools. The sample is representative by gender (although boys outnumber girls as one of the participating schools was single sex): 89 (45%) of the children were female and 111 (55%) were male; in terms of ethnicity: 58 (29%) of the children were Black or Black British; 62 (31%) were White or White British; 39 (20%) were Asian or Asian British; 25 (13%) were of Mixed Ethnicity; and 16 (8%) were Chinese or Other Ethnic Group.

A total of 200 children were interviewed, 98 not having received the police programme and 102 having received the programme; every effort was made to ensure that the children in the pre-programme group had not received other Internet safety programmes or been instructed about Internet safety by their teachers. It was not possible to ensure that children had similar experience of Internet use in both groups, given that assignment to groups was by necessity largely non-random and purposive with the vast majority of children in the age group regularly accessing the Internet on a weekly basis.

The research undertaken with parents is more limited as only one group of 35 parents had received the programme during the research period. The 35 parents receiving the programme were interviewed regarding its effectiveness. The extent to which children discussed the programme with their parents was explored in focus groups with children.

The British Society of Criminology Ethical Code of Conduct in Research (2004) informed the research conduct. Ethical clearance was gained from the University of Westminster Ethics Committee. Informed consent was gained from respondents; assurances about anonymity and confidentiality were given. Written consent for children to participate in the research was gained from their parents/guardians via head teachers before focus group interviews were undertaken.[6]

Results

This section reports on the findings in relation to children's Internet use, their experiences in chat rooms, as well as their views about gender and risk of sexual abuse. Furthermore, the impact of the 'Safer Surfing Police Programme' is also noted.

Children's Internet use

Children use the Internet a great deal and this has been well documented in other research (Livingstone & Bober, 2004, 2005; O'Connell, 2002). According to ICAC (2000) more than 30 million children in the USA alone use the Internet. A report on the Nation's Youth (2004) suggests that 1 in 4 children on the Internet had an unwanted exposure to sexually explicit pictures that were inappropriate for children to view. Approximately 1 in 5 received a sexual solicitation or approach; 1 in 17 was threatened or harassed; 1 in 33 received an aggressive sexual solicitation (from someone who asked to meet them somewhere; called them on the telephone; sent them regular mail, money, or gifts).

The children interviewed in this research were enthusiastic Internet users and enjoyed discussing the topic. Older children in the sample (12+) tended to use chat rooms and interactive games and chat facilities such as MySpace and MSN Messenger. Younger children (10–11) tended to play secure games on websites such as Disney's Toontown and were much less familiar with peer-to-peer networks. All of the children used the Internet for research and homework and were actively encouraged to do so at school. Given that some

of the younger children (10–11) had no experience of chat rooms and did not understand how they function, it may be better to target educational programmes addressing Internet safety at the 12 plus age group, who are actively involved in chatting online, or to adapt such programmes for younger children. There is some research evidence to suggest that older children retain such information more effectively and are more able to act upon it (Tutty, 1997).

The majority of children (130, 65%) had access to at least one computer at home, 97 (49%) had computers in their bedrooms. Other children did not have a computer at home but had access to a computer at relatives' or friends' houses, 30 (15%) used Internet cafés on a regular basis (more than once per week). The findings suggest that almost all of the children had access to the Internet outside school. One hundred and twenty (60%) accessed the Internet more than 4 times per week; this was particularly true of the 12–14 age group. Of those children accessing the Internet, 91 (76%) were largely unsupervised and spent long periods of time on their computer particularly during school holidays and at weekends; the children's comments illustrate this point: 'I use the Internet a lot when I'm on holiday' (FG1); 'my mum and dad do not know anything about computers so I can do pretty much do what I want' (FG2); 'my parents trust me, I'm not silly I know what to do on there' (FG20); 'I don't want them [parents] watching me, I can do what I want' (FG3). Seventy-one (36%) said that their parents knew little about computers: 'my mum is so bad at computers I can do what I like' (FG15); 'we know much more than they [parents] do about computing' (FG3). Generally the children had a great deal of knowledge about computing and the majority of 12–14 year olds were extremely confident Internet users.

Children's experiences in chat rooms

Children were questioned about their interactions in chat rooms and 25 (13%) reported occasions where they believed themselves or a friend/relative had been talking to an adult posing as a child. On several occasions this was clear as the person's Internet profile revealed their real age. A small number of the children (10, 5%) had been approached in a chat room regarding sex and had told their parents; they reported feeling uncomfortable and uncertain about to whom they were talking. The children made the following comments: 'I met a pervert in a chat room and told my mum' (FG3). 'I met someone who wasn't what they said they were' (Q). What did they say? 'They pretended to be a kid, I didn't think they were' (FG4). 'Someone asked me if I did sex, I exited and told my mum' (FG6).

The majority of children (140, 70%) claimed that they would always know if they were talking to a child as children use a unique computer slang online that adults would not be able to understand and would not use: 'Children use words that aren't formal, like slang. So you'd be able to tell if someone was lying' (FG4). 'Teenagers always talk a certain way, I'd be able to tell if it's an adult' (FG13). 'They [children] use texting words, they shorten them because it's easier' (FG14). 'I would be able to tell unless they said something odd' (FG24). The children having received the police programme did appear to have a greater amount of awareness about this issue: 'They could have learnt how to talk in this way' (FG2); 'some people pretend to be your friends' (FG15); 'people on the Internet may not be what they seem' (FG2).

Children's views about gender and risk of sexual abuse

A question about risk of sexual abuse and gender was added to the interview schedule after it had been raised on several occasions and was clearly an 'emergent theme.' The vast

majority (140, 70%)[7] believed that girls were much more at risk; the children's comments illustrate this point: 'Those people pick on girls and boys can handle themselves better' (FG3); 'Boys have more self defence and they [sex offenders] prefer girls' (FG4); 'Most boys are big and can look after themselves, boys will fight and run away' (FG10); 'Those men like girls not boys' (FG10); 'Boys are rough and strong and know how to defend themselves' (FG13); 'Boys are much stronger than girls, they know how to run away and avoid risk' (FG14).

The children seemed to use gender stereotypes in explaining why girls are more at risk of sexual abuse. Girls were described as weaker and boys as stronger and more able to defend themselves. The quotes demonstrate that the children often noted that men seem to perpetrate this type of offence and would therefore target girls. Several children also noted that most cases covered by the media involve the sexual abuse of girls. Whilst it is the case that males perpetrate the vast majority of sexual abuse[8] against female victims,[9] it seems important to reinforce the point with children that boys are also at risk.

Impact of the Safer Surfing Police Programme

Some of the children not having received the police programme had a basic understanding about the dangers of chat rooms (38, 34%). This knowledge is, however, very limited and when questioned further it was clear that some of these children would be willing to provide personal information and on some occasions meet with an online acquaintance: 'I would trust people after speaking online with them for a while, perhaps after 2 weeks, then I'd know they were ok and would meet them' (FG24). 'It would be alright if you met them out where there were lots of other people around' (FG20). 'If they tell you to meet in a busy place then they are friends, if they ask you to meet at the back somewhere then that's scary and you shouldn't go' (FG23). This finding is confirmed by Livingstone's survey (2005) of a large sample of children, where 46% were willing to provide personal information to online acquaintances and this percentage increased considerably when children were asked if they would provide personal details when entering an online competition for a prize.

Although children in the post-programme group did not always recall the safer mnemonic, they did appear to be much more knowledgeable about safety strategies (80% mentioned safety strategies during interviews compared to 34% in the pre-programme group). The post-programme group also appeared much more knowledgeable about the dangers of private chat rooms. Some of these children mentioned the benefits of staying in public chat areas: 'You could be in a public chat room and they might suggest going into a private chat room, this is all right if you'd met' (Q). Why not if you haven't met? 'Because they might not be telling the truth' (FG9). 'In private chat rooms they can say what they like, but other people listen in public chat rooms' (FG11). Children in this group also raised an important point about using a false personal identity online in order to protect themselves: 'we go into chat rooms to meet different children who we don't know, but I don't tell who I really am' (FG11). The pre-programme group did not raise these issues.

Children having received the programme appeared much more knowledgeable about Internet dangers and the majority of the children had clearly learnt the key programme messages and were able to discuss safety strategies. It would seem that children have some basic knowledge about the possible dangers of chatting online gained from peers and from news coverage: 'it's just what you hear on the news' (FG11); 'you know about Jessica and Holly,[10] we saw what happened on TV' (FG29) (reference to the Soham Case); the police programme served to reinforce this and to educate the children about safety strategies. It is

however of concern that the children in this study did not appear to have discussed the programme with their parents. Only 32 (31%) of the post-programme group children had informed their parents about the police programme, and few had given the leaflet to their parents. Parents and careers form an important part of the safety loop and they must be included if the programme is to have any lasting impact upon the children.

Discussion

This study explored the impact of a police programme designed to educate children about online safety and the extent to which teachers informally and formally educate secondary and primary school children about sexual abuse both in the real world and in cyberspace. The research demonstrates that teachers felt untrained in this sensitive area which is more usually addressed by Safer Schools Police Officers. UNICEF (2005) suggests that teachers should be educating children about sexual abuse as part of their general sexuality education. However, this is a sensitive area and the delivery of such education is dependent upon building teachers' confidence and understanding through effective training in collaboration with the police. Whilst there are some difficult areas to confront given that much sexual abuse is perpetrated by people known to children and often from within their immediate families, this is an important aspect of crime prevention. There are clearly enormous benefits to be gained from systematically informing parents about their children's sex education and strategies for safety.

Some teachers believed that sexual abuse and Internet safety should be covered in the national curriculum. However, it is possible that the Department for Education and Skills – DFES – which leads work across government to ensure that all children and young people stay healthy and safe, receive an education and the highest possible standards of achievement and live a safe and healthy childhood (www.dfes.gov.uk) may issue such guidance in future.

Teachers welcomed the involvement of Safer Schools Police Officers on this topic suggesting that presentations on sensitive issues such as sexual abuse delivered by the police had a greater impact upon the children than those given by teachers:

> If we try and teach them about abuse and staying safe on the Internet they probably will not listen, I'm not saying we shouldn't, but we need training really and we need the police to support us with this sort of programme. I think we need to be working with the police on this one. (R9)

The Safer Schools Police Officers were largely very positive about their role in educating children about sexual abuse but saw it as rather limited to short classroom-based sessions. Police officers particularly liked the interactive nature of the Safer Surfing programme and thought this element had a real impact upon the children.

Teachers emphasized the importance of taking the social and cultural context in to account when educating children about sexual abuse and safety. It was suggested that police officers working in this context would have to consider the possibility that they may be working with vulnerable children, who are sexually aware and sexually experienced, and who may have been sexually abused. This would presumably also apply to any teacher raising issues about sexual abuse in the context of lessons.

Intervention programmes operate successfully in the context of the formal education system in other countries. For example, in New Zealand the Keeping Ourselves Safe (KOS) programme was developed by the police and the Department of Education and is delivered to all children in schools by trained teachers, the police also have a significant input to this

programme. Other similar programmes are operating in the USA; the Safe-T programme, for example, operates in middle and junior schools in Vermont. This programme aims to prevent sexual victimization and to promote healthy relationships in young people (www.pcavt.org). Some research suggests that such programmes are successful in raising knowledge levels amongst children (Briggs, 1991). Others have suggested that older children (8+) are better able to act upon such knowledge (Tutty, 1997).

In the USA, the Internet Crime Against Children (ICAC) Task Force has created a programme to help both children and parents to understand the importance of the Internet but also the danger that may be encountered whilst using it. The programme has been developed by NetSmartz Workshop. NetSmartz is an interactive, educational safety resource from the National Center for Missing and Exploited Children and Boys & Girls Clubs of America (BGCA) that uses age appropriate, 3-D activities to teach children and teens how to be safer when using the Internet. NetSmartz has been implemented in more than 3000 BGCA Clubs nationally, serving more than 3.3 million young people.

The programme provides parents, children, and teachers with an overview of online risks. More recently CEOP have designed an Internet safety presentation that is delivered to children in the UK. The '*Getting it Right*' presentation was evaluated by Wishart et al. in 2005, who found that children's awareness of key safety issues rose following the presentation. No follow-up work has been conducted but is planned.

Parental controls and firewalls can also be set up on home computers, but a degree of technical knowledge is needed to do so. This research and O'Connell's work (2002) demonstrates that parents do not necessarily have this knowledge. Whilst children are well protected on the Internet at school given the knowledge of computing staff and technological advancement in this area, they are most vulnerable at home and ensuring that parents have some basic knowledge about Internet protection is of paramount importance. This issue could be addressed via a simple leaflet when a home computer is purchased; it could be argued that the dissemination of this information is the responsibility of Internet service providers and companies responsible for the production, sale, and distribution of computing equipment.

The police have worked in primary and secondary schools in the past to educate children about safety and sexual abuse, but it is clear from this study that the challenge is for education providers, Internet service providers, and the police to work together in systematically informing children and their parents about sexual abuse and safety strategies both in cyberspace and in the real world. The findings from this research also suggest that there is a need for governments to provide clear guidance and possibly training for teachers on educating children about sexual abuse, the police and social services should be also involved in this process.

Conclusion

Recent research (Livingstone & Bober, 2004, 2005; O'Connell, 2002) has played a key role in raising awareness about children's use of the Internet and online risks as have organizations such as the Virtual Global Taskforce. However, this research suggests that children are not routinely educated about sexual abuse in the context of formal education and are infrequently educated about basic safety online at school in the UK. The issue is really much wider than online safety, teachers participating in this work have suggested that it seems pointless to warn children about the dangers they may encounter in cyberspace unless this information is imparted in the context of wider education about sexual abuse. Along with the police, schools should play an active role in educating children about sexual abuse and

safety strategies in the context of the national curriculum, in order to do this effectively training and guidance should be provided for teachers and such work should involve parents and carers. This research has demonstrated that children who received the Metropolitan Police Safer Surfing programme appeared to be more knowledgeable about the dangers they might encounter when online.

This research highlights that the 'Met' Safer Surfing programme designed by police is a useful and relatively effective addition to 'managing the knowledge' that children need to know about the online environment in order to remain safe from prolonged exposure to illegal child abuse imagery on the web.

This police initiative in the UK to work systematically with schools to educate children about sexual abuse in the real world and in cyberspace has potential to evolve into 'communities of practice' internationally (Alavari & Leidner, 2001).

In the KM literature these 'communities' are made of members who have a professional interest in some area who seek out others with similar interests and hence a self-organizing type of group evolves over time. This professional interest is largely based on the 'tacit' knowledge of individuals and hence 'resides in the head' (Gottschalk, 2005) and is consequently rarely made explicit or documented to the degree that such tacit knowledge requires to be of value. Such practice links often begin in an informal manner as in working together on a project like the 'Safer Surfing' programme and may become formalized at some point. However, the really key point is that what form such a 'community of practice' may take in reality it is the richness and depth of the knowledge sharing that takes place in them which is the essential element (Dean & Gottschalk, 2007).

John Carr in the UK suggests in a recent report (2006) that international efforts to protect children online are largely failing as the number of indecent images of children on the Internet continues to increase and the images become ever more disturbing, involving a greater degree of violence and increasingly younger children. It is suggested that governments are failing to make the growing trade in indecent images of children a high enough political priority and that the hidden nature of online grooming and lack of public awareness make this possible. Indeed other recent research conducted in the UK suggests that child victimization and protection issues are not a high priority for the criminal justice agencies involved in the investigative process (Davidson, Bifulco, Thomas, & Ramsay, 2006). Carr advocates a global initiative, and key areas are identified where action should be taken. Carr is correct in suggesting that the key issue is one of effective leadership, and that a '*global leadership mechanism*' (p. 1) should be developed. This mechanism, it is suggested, should take the form of a new non-governmental organization (NGO) or a network that draws upon existing NGOs. This central body would act to scrutinize and advise governments, law enforcement agencies, and the industry. It would also provide a hitherto absent degree of IT industry public accountability. This is undeniably an essential move as at present attempts to protect children online are ad hoc and some international police forces have only just begun to recognize the scale of the problem. Given the way police networks function across international boundaries then the knowledge value of having such an informal network, that is supportive of educational awareness programmes, can only act to enhance the establishment of a more formal international 'central mechanism' as noted above in order to effectively intervene to protect vulnerable children and young people from sex offenders in cyberspace.

Notes

1. The Sexual Offences Act 2003 (England and Wales) is currently under review in Northern Ireland. Some concerns have been raised regarding a lack of clarity around the age of consent and

informed consent. Currently the age of consent is 17 in Northern Ireland (it was raised from 16 to 17 under the Children and Young Persons Act 1950). NI Office, July 2006.

2. The G8 countries are the seven most developed economies in the world (plus Russia), including: America, Britain, Canada, France, Germany, Italy, Japan, and Russia.
3. Recent statistics produced by the IWF suggest that 615 reports of Internet abuse were received during their first year of operation (1996), compared to 27,750 reports in 2006 (85% of which related to suspected child abuse websites). During the 10-year period, 31,000 websites have been found to contain potentially illegal child abuse images. It is claimed that the number of reported websites containing illegal child abuse images, has fallen in the UK from 18% in 1996 to 0.2% in 2006. A breakdown of countries where websites containing child abuse images appear to have been hosted during the period 1996–2006 is provided by the IWF who suggest that: 51% of sites were hosted in the USA, 20% in Russia, 5% in Japan, 7% in Spain, and 1.6% in the UK (Internet Watch Foundation, October 2006).
4. The programme was however used with children aged 10 plus.
5. The programme was delivered by Police Safer Schools Officers as part of their routine work and was not therefore labour intensive.
6. None of the children interviewed disclosed sexual abuse; this would have given rise to difficulty with the notion of absolute confidentiality, due to concerns over child protection. In past work with adult offenders, respondents have been informed at the outset of any research interview that such disclosure would be reported, which is good research practice. But it was decided here that such a statement would alarm the children. Had any such disclosures been made they would have been reported to the head teacher and this would have been discussed with the child in private at the end of the focus group.
7. Children in the post-programme group were less likely to believe this, with 50% (51) agreeing that girls are more at risk compared to 91% (89) in the pre-programme group.
8. A study of 60,991 sexual assault victims conducted in the USA suggests that male sex offenders were the perpetrators in 96% of cases (Snyder, 2000, p. 8).
9. Rennison (2002) suggests in her analysis of US crime statistics that females were the victims of 89% of all reported sexual assaults between 1992 and 2000.
10. The respondents' reference to 'Jessica & Holly' refers to a widely publicized case in the UK involving the abduction and murder of two children in Soham in August 2002 by a known sex offender working as a school caretaker.

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