4.3 Results from Internet Safety organisations

Seven key Internet Safety organisations were invited to complete the questionnaire shown in Appendix 3. Responses were received from three of them, two via email and one by post, making a response rate of 43%.

Two of the organisations that responded viewed their role in Internet safety as advisory and the third as a supporter of online safety programmes.

The following URLs were given for organisations relevant to child safety:

nch.org.uk   www.chatdanger.com

iwf.org.uk   www.kidsmart.org.uk

www.childnet-int.org

This list was expanded by the respondents to include the following resources which are currently available for parents, teachers and children:

- NCH
- Childnet
- Getnetwise
- Disney
- Microsoft
- AOL
- Childnet International at www.childnet-int.org
- NCH at www.nch.org.uk/itok/netsmart
- Wise up to the Net at http://wiseuptothe net.co.uk
- www.kidsmart.org.uk/ which includes interactive questionnaire, teachers' resources, children's artwork
- CD-ROM from Childnet awards programme - www.childnetawards.org
- Powerpoint and leaflet for parents at www.kidsmart.org.uk or www.childnet-int.org/resources/kidsmart.html

4.3.1 Physical measures for Internet Safety

Respondents were asked to indicate the physical measures that they recommended most strongly for use in primary and secondary schools.

- Filtering by the Internet Service provider was recommended for both primary and secondary schools by two of the three organisations.

- Having a filter within school was recommended by one respondent but they added the proviso that this would be dependent upon the level of support within school for managing the filtering system.

- Customised filtering software was strongly recommended by all three respondents to allow different levels of access to be set for teachers, older and younger pupils.

- Walled gardens were recommended for primary schools by two of the three respondents and for Secondary schools by one of the respondents.

- Local area intranets managed by the LEA were recommended by two of the three for primary schools though one added on the proviso that this depended on the level of support available. They were recommended by only one respondent for secondary schools.

- Supervised Internet access and monitoring of websites visited were strongly recommended by two of the three respondents for primary schools. Only one suggested monitoring web sites visited by secondary pupils.

- Monitoring of email was strongly recommended by all respondents for primary schools but by only a single respondent for secondary schools. Neither email via class addresses nor within a closed local area received strong endorsement each being recommended by one of the respondents for primary pupils only.

Other suggestions made by the respondents were the need to monitor chat and SMS messaging and that it is crucial that effective training takes place in schools so that pupils can understand relevant Internet Safety issues and take responsibility for themselves. The point was made that teachers need resources for this.

4.3.2 Internet Safety Concerns

The types of breaches of Internet Safety that were a major concern for all three respondents were inappropriate access of chat or SMS messaging, bullying via email and receiving inappropriate emails. Deliberate access of inappropriate material, downloading music and games and pupils purchasing goods on the Internet were more likely to be a minor concern for all the respondents. Accidental access was a concern to only two of the respondents, one major and one minor, as was receiving junk mail. Other concerns added by respondents were major – publishing inappropriate content and then accessing it from school, and minor – inaccuracy of material on the Web.

Informing parents about Internet Safety was a major concern for all three respondents who also felt that it was largely the school's role to inform parents on the topic though one respondent made the point that the responsibility must be shared by different agencies.

Pupils' need to have free or unrestricted access to information was also a concern for all three respondents though one made the point that restrictions should be in place depending on the pupils' age. Teachers' need to have free or unrestricted access to

information in order to use the Internet in its entirety was a concern for only one respondent.

A number of responses were made in response to the question, 'What in your view is the single most important Internet Safety issue in schools today?'

Single most important Internet Safety issue	No. of times suggested
Net literacy	4
Inappropriate contact with unknown persons	1
Providing resources that affect and modify behaviour rather than simply inform	1

Overwhelmingly the issue of Net literacy was deemed most important by the Internet Safety organisation contacts. One described it as 'helping children to use the filter between their ears' and added 'the need to empower pupils to understand the issues of Internet Safety and to provide resources that affect and modify behaviour rather than simply inform'.

Issues reported as being on the horizon for Internet Safety are listed below.

Emerging issues	No. of times suggested
Internet access via mobile devices	3
Bullying via SMS or email	2
Abuse of peer2peer networking	2
Arrival of 3G	1
Children creating their own inappropriate content	1
Need to profile positive, safe use of the internet	1

Internet access via mobile devices, in particular the loss of central control of filtering, is the respondents' greatest concern for the future.

4.3.3 Resources and guidance

The following is a list of resources that are made available by the organisation(s) for teachers and parents:

- Childnet International at www.childnet-int.org
- NCH at www.nch.org.uk/itok/netsmart
- Wise up to the Net at http://wiseuptothenet.co.uk
- www.kidsmart.org.uk/ which includes interactive questionnaire, teachers' resources, children's artwork
- CD-ROM from Childnet awards programme - www.childnetawards.org
- PowerPoint presentation and leaflet for parents at www.kidsmart.org.uk or www.childnet-int.org/resources/kidsmart.html
- Disney
- Microsoft
- AOL
- Getnetwise

The following were mentioned in response to the request for the respondents to 'suggest further resources or guidance that could be made available':

- Walled gardens ought to be more widely available
- Better resources on school websites
- Better training for teachers through NOF or TTA on Internet Safety.

As for format for these resources, the following suggestions were made:

- Online and on paper
- Varied – it is important to be as creative as possible if we are to engage with young people
- Use of drama
- Forthcoming Internet Proficiency certificate would be very useful.

4.4 Results from LEAs

ICT advisors for schools from the 27 LEAs originally chosen for the main schools survey were asked what measures they took to promote Internet Safety in their Authority. A telephone interview or an electronic version of the questionnaire as shown in Appendix 2 was used to collect the data. Eighteen LEAs responded, making a response rate of 67%.

4.4.1 Physical measures of Internet Safety

In Question 1, the LEAs were asked which Internet Safety measures were strongly recommended to their primary and secondary schools. Their responses are shown in

the table below. Product recommendations were given to schools by some LEAs and these were recorded.

Safety Measure Recommended	Primary (No. of LEAs)	Secondary (No. of LEAs)
ISP Filter	11 (61%)	11 (61%)
LEA Filter	10 (56%)	11 (61%)
Local Filter	5 (28%)	8 (44%)
Customised Filtering	3 (17%)	4 (22%)
Walled Garden	4 (22%)	3 (17%)
LEA Intranet	5 (28%)	7 (39%)
Supervised Access Only	14 (78%)	6 (33%)
Firewall	14 (78%)	15 (83%)
Monitoring web sites	13 (72%)	15 (83%)
Monitoring email	10 (56%)	12 (67%)
Class email	14 (78%)	6 (33%)
Closed email	6 (33%)	3 (17%)
Other measures Mobile phone restriction Private pupil areas on server		1(6%) 1(6%)

Sixty per cent of LEAs strongly recommended ISP and LEA filtering rather than local school filtering for both primary and secondary schools. Research Machines (RM) filters or Smartfilter were the most popular recommendations for filtering software. Customised filtering at different levels for different age ranges in schools was recommended by only around 20% of the LEAs, as were walled gardens. Not all LEAs questioned had an intranet set up, and some only had the infrastructure in place for secondary schools. Those that did have an intranet set up recommended that their schools use it.

Supervised access was not recommended by all LEAs. Seventy-eight per cent of LEAs strongly recommended it to primary schools and 33% to secondary schools. Comments to be noted from LEAs were 'that supervision policy was up to the schools', 'that it was only recommended where no walled garden was set up', and 'only for younger pupils.'

Firewalls were considered a higher priority recommendation as 78% of LEAs recommended that primary schools and 83% recommended that secondary schools should be equipped with firewalls. Monitoring of websites visited by pupils and monitoring email were also recommended by the majority of LEAs.

Class email was recommended by the majority of LEAs for primary schools but not for secondary schools. Fewer LEAs recommended closed email systems and those that did recommended it mainly for primary schools (33%).

Two further recommendations from LEAs were that their schools should discourage the use of mobile phones in school and texting via the Internet and that pupils should be assigned their own private work area on a server that was inaccessible to other pupils.

Product recommendations for the various safety measures varied widely where offered. Research Machines products were recommended by more LEAs than others for ISP filtering and for email monitoring.

Filter providers and products recommended for ISP, LEA and individual school installed software are shown below.

Providers and Products	No. of times reported
RM	5
NTL	3
Igear	3
Smartfilter	3
Regional Broadband Consortia	3
Symantec	2
Easynet	1
E2B	1
Wall One	1
Atomwide	1
Eclipse	1
Sumtic	1
Webfence -own software	1
Netnanny	1
Safetynet plus	1

Customised levels of filtering between and within schools was recommended by only one LEA.

Product	No. of times reported
NINAA	1

Walled Garden products recommended were as follows.

Product	No. of times reported
Sourcerer	1
WSCC Green list - only for primary and lower secondary pupils, not upper	1

Firewall products recommended are shown below.

Product	No. of times reported
Various or any	2
Linux servers in schools	1
Wall One	1

Three website monitoring activities or products r were ecommended.

Product	No. of times reported
Manual (IT Dept)	1
RM	1
Winproxy	1

A range of email monitoring products were recommended.

Product	No. of times reported
Manual monitoring by teacher	2
RM Easymail	1
First Class	1
Model AUP	1
LDAP servers with individual mail accounts	1
Websense	1
Winproxy	1

4.4.2 Reported breaches of Internet Safety

Question 4 asked respondents to estimate how often the LEA heard of breaches of Internet Safety. As shown in the table below, accidental and deliberate access of inappropriate material were the commonest breaches reported to occur at least once a year by the majority of LEAs. These were followed by unsolicited junk mail from outside school and downloading music or games without permission. Only occasionally were inappropriate emails from outside the school, inappropriate access of SMS or chat and bullying emails from other pupils within school reported. Rarely were pupils reported as purchasing goods over the web at school. No other breaches of Internet Safety were reported.

Frequency with which LEAs report breaches occurring	Regularly (>one per term)	Occasionally (>one per year)	Rarely	Never	Total
Accidental access of inappropriate material	5	6	7	0	18
Deliberate access of inappropriate material	4	6	6	2	18
Unsolicited (junk) email from outside school	1	5	5	7	18
Downloading music or games without permission	1	3	10	4	18
Inappropriate emails from outside the school	1	3	7	7	18
Inappropriate access of SMS or chat	0	2	10	6	18
Bullying emails from other pupils within school	0	3	5	10	18
Pupils purchasing goods over the Web	0	0	4	14	18

4.4.3 Internet Safety concerns

In Question 2, LEAs were asked what sort of breaches of Internet Safety currently occurred with pupils and how much concern they caused.

The greatest concern for LEAs was deliberate access of inappropriate material with 83% of respondents saying that it was either a major or a minor concern. This was followed by concerns about accidental access of inappropriate material from the majority of respondents. Other breaches included inappropriate access of Chat and SMS, downloading of music and games, email problems and shopping.

Numbers Reporting Concern over Internet Safety Breaches	A major concern	A minor concern	Not a concern
Deliberate access of inappropriate material	7	9	2
Accidental access of inappropriate material	2	11	2
Inappropriate access of SMS or chat	2	6	10
Downloading music or games without permission	2	4	12
Inappropriate emails from outside the school	2	3	13
Bullying emails from other pupils within school	1	3	14
Unsolicited (junk) email from outside school	1	3	14
Pupils purchasing goods over the Web	1	5	12

Freedom of Information and Internet Safety

Question 3 asked about the importance of freedom of access to information, informing parents about Internet Safety and advising pupils about not giving out personal information. As shown in the table below, the majority of respondents considered that these were all areas of concern. Informing parents about Internet Safety was given a slightly lower priority than other areas.

Number of LEAs reporting concern	A major concern	A minor concern	Not a concern	No data
Pupils having free access to information	6	6	6	0
Teachers having free access to information	3	10	5	0
Informing parents about Internet Safety	5	5	8	0
Advising pupils not to give out personal information	5	6	2	5

Informing parents about Internet Safety

Question 5 asked whose role LEAs considered it to be to inform parents about Internet Safety. The majority (shown in the table below) said that it was the responsibility of schools with or without LEA support. Two LEAs said that the Community Grid for Learning played a role in informing parents and one also cited the County Council.

	No. of times reported
Schools	12
Schools with LEA support	4
School/Council/LEA/Community Network	1
Schools/Community Grid for Learning	1
Total	18

Single most important Internet Safety issue

Question 6 asked LEAs to say what in their view was the single most important Internet Safety issue in schools. Most LEAs gave different answers. Teacher and school awareness of Internet Safety were mentioned by four LEAs and a further four mentioned problems with websites such as keeping up with changes and checking links. Three LEAs mentioned aspects of child safety as being the most important issues.

Others considered various problems such as virus infections and hacking to get round filters were most important.

Single most important Internet Safety issue for LEA advisors	No. of times suggested
Child Safety	
Children making/attempting to make contact with unknown individuals outside school /Potential for strangers to meet children	2
Teacher and school awareness	2
Child safety - not giving out personal details, email and bullying	1
Teachers not having sufficient time to visit all links to a page they're using	1
Strict supervision	1
Each school must produce and monitor plans themselves	1
Web site problems	
Finding inappropriate sites at home	1
Keeping up with new inappropriate sites	1
Checking links from allegedly safe sites	1
Dubious sites mimicking well known ones	1
Other	
Blocking Google images - children have found out how to bypass block	2
Children hacking school computer to get round filter	2
Corporate ICT needs to understand educational needs	1
Virus infections	1
Total	17

Emerging issues for Internet Safety

Question 7 asked about emerging issues for Internet Safety. Again, as shown in the table below, responses were very diverse, but email was considered to be an important issue by marginally more LEAs (4) than system hacking (3). These came ahead of other issues which included virus infection, increasingly unsupervised home access, the need for more effective filtering, the need to raise awareness of safety and the use of chat rooms, gambling and increasingly unsuitable content.

Emerging Issues for LEA advisors	No. of times suggested
Email being extended to individual addresses (particularly for Primary)	4
Children accessing servers/hacking	3
The need to raise awareness of safety issues	1
Increasing home access. Increasing sophistication of users. Lax parents. Little jurisdiction outside school	1
Making sure filtering is effective. Sites change too fast. Increased bandwidth means videoconferencing and increased communication facilities which will need to be policed. More money needed for infrastructure to ensure safety.	1
Parents signing to allow Internet use is an issue as children must use the Internet as part of the national curriculum	1
Unidentifiable people in chat rooms	1
Viruses, gambling, increasingly unsuitable content	1
Total	13

4.4.4 Guidance and resources

LEA-provided Internet Safety resources and guidance

Question 8 asked for the resources and guidance that the LEA currently makes available to schools and parents on Internet Safety. As shown in the table below, six LEAs said that they provided no material of their own and just links from the LEA site to other organisations where information could be found. The remaining 12 LEAs said that they had a specific site for Internet Safety material and this ranged from sample policies to downloadable leaflets on Internet Safety designed for parents. Some LEAs also provided training and workshops and gave advice based on observed classroom teaching. One had a Consultative Committee on Internet Safety. Another provided paper-based materials in addition to web material.

LEA Resources	No. of times suggested
No material	
None of own. Point schools to DfES Superhighway/Becta/Kent/NGfL/Parentsnet.com	6
Web site with Internet Safety Information	
Website with Internet Safety Policy/Internet access guidance	5
Website with documentation (policy, letters, rules) also instructions on setting up resource rooms e.g. screen should always be visible	1
Website with downloadable leaflets for parents, example policy. Training on website construction that focuses heavily on safety	1
Website includes policy specimens. Observe classroom teaching and advise teachers. Community Grid for Learning has parents advice pages	1
Website for teacher access only	1
Website with sample policy. Consulting committee. Becta consultation	1
Website, workshops, linked policies with all public services	1
Website. Paper-based documents. BCS NAACE materials	1
Total	18

Further resources on Internet Safety

Questions 9 and 10 queried what further resources LEAs would like to see being made available and in what format.

Responses were varied and 39% of the sample did not supply an answer this question. As shown in the table below, three LEAs asked for best practice examples to be made available online. Two more asked for an Internet Safety Alerting service, in particular one that feeds back on other LEAs' experiences. Various other responses were 'that useful resources would be advice on chat rooms', 'free filtering software', 'a different, more positive approach to policies', 'example primary school rules', 'updated Becta material and general policy advice'.

Further resources requested by LEA advisors	No. of times suggested
Best practice examples on Becta site/online/case studies of other LEAs	3
Internet safety site updates service/Alerting issues encountered by other LEAs with feedback	2
Child Guidance in chat rooms advice. Filters on chat rooms. Moderation of chat rooms	1
Easy rules for safe surfing for primary schools, free filter software for parents	1
School policy advice	1
More positive approach. Statements on safety are very negative. Potential legal disaster if parents won't sign to allow kids to use the internet	1
Updated Becta material and less paranoia-fuelled approach to the Internet	1
Websites linked to National Curriculum outcomes	1
Total	11

The format for the materials suggested was web based (4), face-to-face training (1), posters (1), sessions for parents in schools and libraries (1).

5 Discussion and Conclusions

5.1 Discussion of results from the main study schools[1]

Of the 579 schools surveyed, only 20 (3.6%) had no Internet access. It is interesting to note that 14 of these were independent schools and, of those 14, 6 (43%) were independent schools with religious affiliations.

5.1.1 Physical measures of Internet Safety in main schools

Ninety-five per cent (95%) of the 557 schools with Internet access have some form of filtering system in place though there was some confusion about where the filtering took place, especially where the LEA acted as the Internet Service provider. The majority of schools (62%) reported filtering taking place via the LEA; however, 31% of these were unable to name the software or hardware used. There was further confusion over the concepts of firewalls and especially walled gardens, where 73% and 75% of those reporting that these systems were in place were unable to name them. It is arguable whether the respondents really need to know the precise details of the systems involved, but requests for more guidance on filtering systems were made by 36 schools.

Independent schools were most likely to be without a filtering system with 16% of them not reporting filtering either at the ISP or within school, though consistently 4-5% of other types of schools were without a filter. Primary schools and smaller schools were slightly more likely not to have filtering in place. In some of these schools a perception exists that they 'know' their pupils and what they are likely to get up to.

Well over half the schools (62%) supervise all pupils' Internet access with special schools, independent schools for older children and voluntary aided or controlled schools being slightly more likely to do so. In special schools the pupils are more likely to need the support of a helper and the other schools may well feel a greater responsibility to their parents; for independent schools it may be linked to the increased likelihood of not having a filter in place. Teachers in boys-only schools and smaller schools are more likely to supervise Internet access at all times.

Fifty-eight per cent (58%) of schools monitored the websites pupils had visited by using the history in the browser, site-logging software or by asking for records from their Internet Service Provider. Special schools and voluntary aided or controlled schools are the most likely not to check up on websites that their pupils have visited as are smaller schools and schools with primary age children. In the case of special schools, smaller schools and primary schools, their pupils are more likely to have constantly supervised access.

The situation regarding monitoring pupils' email is more complex. Email is allowed for school work in 76% of the schools and for recreation in 32% of schools. Less than half

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[1] Percentages reported in this section are derived from the figures given Section 4.1

of the schools (44%) monitor pupils' emails regularly though it is not made available to pupils in a further 16% of schools. Only 84 (15%) of schools allow unmonitored, recreational use of email and these tend to be larger schools with older (secondary) pupils and independent schools. Very few schools (3%) used class or group emails and less than 1% used closed email such as epals.

Chat is very rarely permitted in schools whether for school work or recreational use; only 32 schools (5%) allowed its use for school work and fewer (24) allowed pupils to use it recreationally. Schools were also fairly strict about pupils downloading files with only 19% allowing pupils to download without restrictions.

5.1.2 Internet Safety Policies in the main schools

Some 89% of schools reported having an Internet Safety or Acceptable Use of the Internet Policy in place and a further 3% are either working on their policy or distribute Internet Safety information in a different form. Again independent schools are the least likely to have a policy with 32% not reporting one. In each case around ¾ of schools show the policy to their teachers, parents and pupils though slightly fewer report it going to governors or ancillary staff. About half the schools expected parents and/or pupils to sign to show agreement to the policy. Of the schools sending policies home for signing, 88% reported a return rate of over 90%. The most common response to an unsigned agreement was to prevent Internet access for the pupil concerned. Four schools' computer log-on screens had a copy of rules or policy that had to be agreed to with a mouse click before any other software could be accessed.

Respondents were asked which Internet Safety issues were covered in their policy and it was this part of the questionnaire that really acted as an awareness-raising exercise for the school-based ICT co-ordinators. The research team lost count of the number of times they were told, "Well it doesn't include that at the moment but it will now you've asked about it". Details concerning use of the Internet (both World Wide Web and email) in school, not giving out personal information, the school's filtering systems and monitoring of pupils' Internet use, sanctions for misuse of the Internet and procedures in case of a violation of Internet Safety were included in over half the schools' policies. Information on use of school email at home was rare, mentioned by only 18% of schools, as was including information on teaching resources for Internet Safety (mentioned by 17% of schools).

Other Internet Safety information included in policies volunteered by repondents included information regarding display of personal information and photos on the school website, advice on keeping your username/password secret, levels of staff supervision, disabling disk drives and emphasising the advantages of using the Internet.

The policy was most likely to be implemented and monito red by the ICT co-ordinator (reported by 74% of schools) and the ICT co-ordinators themselves reported most often using LEA guidance to develop the policy (59% of schools) and less frequently materials such as the old information sheets from Becta (32%) and the NGfL

Superhighway Site or pack (19-20%). It is a concern that more teachers are relying on the old Becta information sheets than the recently revised NGfL pack. Teachers are most likely to look to the LEA and slightly more likely to look to other schools for guidance than to use the NGfL materials. Schools were most likely to review their policies annually and it was very unlikely that Internet Safety was mentioned in any of the other school policies.

5.1.3 Teaching Internet Safety in the main schools

An induction course appeared to be the most popular method of teaching Internet Safety amongst all the different school age groups except for primary schools, where only 39% reported having an induction compared to 73% of secondary schools. Primary schools are more likely to rely on whole-class teaching as reported by 67% of schools. Also they are more likely than schools with other age groups to use discussion activities (reported in 49% of primary schools) and secondary schools are more likely than primaries to use their Internet Safety policy as a teaching vehicle (64%). Use of worksheets was rarer, being mentioned by 17% of primary and 22% of secondary schools. Independent schools are less likely to be teaching Internet Safety than other schools, with 32% of them not reporting any teaching methods though neither did 10% of voluntary aided or controlled schools and 13%-17% of other state schools.

In primary schools there were no apparent differences between teaching methods according to age of pupils and in secondary schools, the youngest pupils were more likely to receive the induction programme and worksheets. A number of respondents made the point that Internet Safety was not taught on a formal whole-class basis but the whole class was reminded about safety practices as and when deemed relevant.

Internet Safety is mostly taught solely within ICT (reported by 56% of schools) with a further 27% reporting that it takes place in ICT and other subjects. Of the other subjects mentioned, PSHE was by far the most popular, reported by 21% of schools. Other strategies mentioned for teaching Internet Safety found in more than one school were assemblies and log-on screens.

Internet Safety appears to be taught in schools in two ways. Firstly, as an introduction to Internet use in the school that occurs in either KS1, KS2 or KS3 where policy and whole-class teaching are to the fore and, secondly, in fewer schools, as part of the teaching programme within ICT or PSHE.

5.1.4 Breaches of Internet Safety in the main schools

Breaches of Internet Safety reported by the ICT co-ordinators' largely focused on access of inappropriate material with deliberate access of inappropriate material occurring regularly (>once a term) in slightly more schools (13%) than regular accidental access of inappropriate material (11%). However, the total number of times accidental viewing is reported as occurring regularly, occasionally or rarely (62%) is far greater than that for deliberate access of inappropriate material (44%). In fact, presumably, due

to consistency with which it occurs, accidental access to inappropriate material is the most commonly cited as teachers' single most important Internet Safety issue.

The frequency with which breaches of Internet Safety occur increases with the number and age of pupils attending the school. It is worrying that 28% of larger, secondary schools see accidental access of inappropriate material more than once a term despite 99% of these schools having a filtering system in place. Deliberate attempts to access inappropriate material are largely confined to post-11 schools and more likely to occur in larger secondary schools. Thirty-nine per cent (39%) of secondary schools reported that these violations occur more than once a term.

Accessing SMS or c hat and downloading music or games without permission occur regularly in secondary schools with 19% of the larger secondary schools reporting problems with chat and 38% reporting downloading without permission both as occurring more than once a term. These types of breaches occur but much more rarely in primary schools.

Bullying by email from within school is much less common, only 2% of secondary schools report it occurring more than once a term. Unsolicited emails from outside the school are not an obvious problem for schools, with larger secondary schools receiving the most. 17% of these schools reported receiving junk mail more than once a term and 10% reported receiving inappropriate emails with this frequency. It may well be that the low reported numbers of unsolicited emails received by schools is due to filtering by their ISP. The LEA ICT advisors interviewed certainly viewed this as part of the ISP's role.

5.1.5 Internet Safety Concerns in the main schools

Despite the frequency of accidental access of inappropriate material by pupils, ICT co-ordinators reported 'pupils giving out personal information' most often as a major concern, followed closely by deliberate and then accidental access of inappropriate material. This is likely to be due to the potential severity of consequences of disclosing personal details to strangers. However, when including minor as well as major concerns, accidental access becomes the teachers' most commonly cited concern. Accessing inappropriate material is also cited most often as the ICT co-ordinators' single most important Internet Safety issue, being reported by 25% of schools compared to 11% mentioning the filtering system and then 7% mentioning pupils' use of email.

Pupils' use of email is not a concern for 49% of schools probably because of the numbers that do not use it though it appears as the teachers' number one concern, cited by 84 of the schools, for the future. In the main, schools are worried about increased use of email (it being new to the school) and monitoring use of email.

SMS messaging and chat are not a concern for many schools, with 67% reporting chat as not a concern and 75% reporting SMS as not a concern. There is clearly a disparity here as, if chat is not allowed in 95% of schools and not a concern for 67% of them,

how are pupils currently being made aware of safe use of the chat rooms which are so readily available at home?

Downloading files is a concern, however, for just over half of the schools, appearing most frequently as a minor concern. It remains a major concern for a fifth of secondary schools, with viruses being cited as the most common reason.

Informing parents about Internet Safety was a concern for just under half the schools involved, though it was a major concern for 19%. It was most likely to be a major concern for independent preparatory schools followed by secondary foundation schools which may be linked to their more independent status or, in the case of the independent schools, not having filtering in place.

Teachers being able to freely access information on the Internet was not a concern for over 70% of schools with quite a few suggesting that teachers would be able to do this at home if they wished to. It was slightly more of a concern that pupils should have free access to information though this was often balanced in teachers' comments by the need to protect them.

Other concerns mentioned most frequently were the filtering system blocking sites that were needed for school work and parents not being aware of how their children were using ICT at home.

5.1.6 Discussion of Internet Safety Issues in the main schools

Overwhelmingly respondents felt confident in their ability to discuss Internet Safety issues with other members of staff, parents and pupils. Ninety per cent (90%) described themselves as very confident or quite confident. Teachers were the group most likely to come to the ICT co-ordinator to discuss Internet Safety issues though a significant proportion, (36%), of respondents reported that they had not been approached by teachers.

Discussion with pupils and teachers is most likely to be in response to a need to access certain websites. With parents it is likely to be about computer use at home or in response to the school's Internet Policy being sent home.

Governors are the group least likely to approach the ICT co-ordinator with 63% reporting that they had never been approached though some are very interested and ICT aware. Two schools reported that Internet Safety in the school had been tackled at the instigation of the governors.

5.1.7 Further resources in the main schools

ICT co-ordinators were very keen for more training, to learn more about filtering, for a centralised approach or portal and for support materials for parents. Approximately

equal numbers said they preferred web-based material as said they preferred printed information. Face-to-face training courses were also popular.

5.2 Discussion of results from Internet Proficiency (IP) Pilot Schools[2]

This was a much smaller sample comprising only 37 Primary and 1 Middle schools and cannot be said to be representative of schools across England as it consisted solely of schools that had volunteered to take part in Becta's pilot scheme to test their Internet Proficiency teaching materials.

5.2.1 Physical measures of Internet Safety in IP Pilot schools

All the schools in this group had filtering in place with a similar pattern of ISP and/or LEA and/or school-based filtering systems as found in the schools in the main sample. Though respondents showed slightly more knowledge of the filtering software they were still uncertain over where it was carried out and very uncertain about the presence of walled gardens or firewalls.

Slightly fewer schools in this group, 55% as opposed to 66% of primary schools in the main study, supervise pupils' use of the Internet at all times and even fewer 42% as opposed to 55% monitor websites visited by pupils through logs or histories.

Monitoring email was carried out by 42% of the Internet Proficiency Pilot schools, which is a similar level to the schools in the main study though fewer of the Internet Proficiency Schools (8% as opposed to 15%) allowed unmonitored recreational use of email. Email for school work was allowed in more (87%) of the schools in this group than in the main study (76%).

Chat was allowed for school work in a larger proportion of schools in the Internet Proficiency Pilot group (13%) than in the main study (5%) though this is still a very small proportion.

Similar to the main study, downloading files was not permitted in nearly half the schools, though in this group fewer schools (11% as opposed to 19%) allowed downloading without restrictions on file type or pupil age.

5.2.2 Breaches of Internet Safety in IP Pilot schools

Regular breaches of Internet Safety among the Internet Proficiency Pilot schools were more likely to be downloading files without permission and receiving unsolicited junk email whereas in the main study the most often reported regularly occurring breaches were deliberate rather than accidental access of inappropriate information. However, similarly to the main sample, on combining regular, occasional and rare breaches, accidental access of inappropriate material appears the most often. These differences

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[2] Percentages given in this section are derived from the results and figures described in Section 4.2.

may well be due to the ages of the children involved with the 37 out of 38 Pilot schools being primary compared to 319 of 557 in the main study.

5.2.3 Internet Safety Policy in IP Pilot schools

Thirteen per cent (13%) of the Internet Proficiency Pilot schools did not have an Internet Safety policy in place, a similar figure to 11% of schools in the main study, though a greater proportion 11% as opposed to 3% reported having a policy in draft form. More of the schools in this group shared their policy with teachers, other staff, parents and governors than in the main group. Slightly more, 60% as opposed to 51%, requested signatures from parents. This indicates a slightly greater concern over Internet Safety than displayed in the main sample.

The respondents from the Internet Proficiency Pilot schools were more knowledgeable about the contents of their Internet Safety policy but the kind of issues that tended to be included in their policies followed a similar pattern to those included by the schools in the main study. A greater number of Pilot schools reported including information on teaching Internet Safety. Again this illustrates their higher awareness of Internet Safety issues.

Within this sample 47% cited the ICT co-ordinator as being responsible for monitoring and implementing the Internet Safety policy as opposed to 74% in the main study. Here the Head was much more likely to be responsible either solely or jointly with the ICT co-ordinator.

The ICT co-ordinators from the Internet Proficiency Pilot schools were much more likely than the schools in the main study to report using the LEA, the NGfL Superhighway Safety pack and website and Becta information sheets as a source of guidance to develop policy. Similarly to the other schools, they were most likely to review their policy annually.

5.2.4 Teaching Internet Safety in IP Pilot Schools

Whole-class teaching is the most popular method for delivering Internet Safety in the Internet Proficiency Pilot schools, being used by over 80%, and is closely followed by using the policy (71% of schools) and discussion activities (66% of schools). The same pattern occurs in schools in the main study though the frequencies are lower with whole-class teaching occurring in 67% of primary schools.

Sixty-six per cent (66%) of these schools compared to 56% in the main sample reported ICT as being the only subject where Internet Safety is taught. Where teaching Internet Safety was reported in a second subject, PSHE was the most commonly cited. Internet Safety was reported as being taught in Citizenship in 7 of the 38 Pilot schools as compared to only 3 in the 557 in the main sample.

5.2.5 Internet Safety Concerns in IP Pilot schools

As in the main study, accidental access of inappropriate material was the most commonly cited concern (major or minor) in the Internet Proficiency Pilot schools followed closely by pupils' giving out personal details. However, the frequency with which they are reported as a concern is slightly higher (89% and 87% respectively) than in the main study (75% and 67%). Their appearance as teachers' most common concern is likely to be due to the frequency with which accidental access occurs and to the potentially serious consequences of giving out personal information.

Respondents from these schools were also more worried about deliberate access of inappropriate material (77% as opposed to 65%) and much more concerned over pupils' use of email (77% as opposed to 51%) and downloading files (71% as opposed to 51%) than those in the main study.

While they were less worried about SMS messaging and chat, these were still nearly twice as likely to be reported as a concern than in the main sample. Informing parents was a concern for 50% of the schools in the main study and for 68% of the Internet Proficiency Pilot schools. Of all the suggested issues, only teachers' free or unrestricted access to information was less of a concern for these schools than in the main sample. These higher levels of concern may well be because schools applying for the pilot scheme were already concerned about their Internet Safety practices.

More information was received from these schools about why these issues were a concern in school than in the main study.

- Concerns over accidental access of inappropriate information arise largely from worries that the filtering is not 100% effective and concerns over pupils giving out personal information stem most often from the perception that children are naïve and too ready to give out their details.

- Deliberate access of inappropriate material is less of a concern because of the level of supervision in schools though concerns do arise from children 'testing' the filtering system.

- Concerns over the use of email and chat stem largely from unsupervised use at home and SMS messaging is not yet a concern as it is not used in schools.

- The biggest concern with regard to the downloading of files is the possibility of virus infection.

- Free or unrestricted access to information for pupils was largely not a concern because teachers were happy with their current filtering arrangements though it was also noted that they would like to provide unrestricted access together with teaching safe surfing practices or Net literacy.

- Free access for teachers was not a concern as the staff were trusted or the school was happy with the current filtering arrangements but it was also noted that it is important for learning and understanding the Net. One respondent made the point, "This is what the Internet is for!".

- Informing parents was mostly a concern because of the perception that parents were unaware of, or needed guidance on, Internet Safety issues as well as a recognition that the school ought to do more in this area.

As in the main study, when asked for their single most important concern, ICT co-ordinators were most likely to cite accessing inappropriate material. This appears to be linked to the frequency with which it occurs in schools though the second most frequent reply from this group, teaching children Net literacy, did not appear in the main sample. This does, however, support the concerns of the representatives of Internet Safety organisations who all included teaching Net literacy as their most important concern.

Again, similarly to the respondents from the main study, the Internet Proficiency Pilot schools reported pupils' use of email most often when asked for emerging 'Internet Safety issues for schools'. However, this group also cited pupils' use of chat rooms as an emerging issue with nearly the same frequency. This is likely to be due to their increased levels of Internet Safety awareness resulting from their involvement in the Internet Proficiency scheme.

5.2.6 Discussing Internet Safety issues in IP Pilot schools

As in the main study, respondents were more likely to be approached by other teachers than pupils, parents or other staff wishing to discuss Internet Safety issues though only 29% reported that they had never been approached compared to 36% in the main group. In the main group, teachers' questions were most likely to result from being unable to access a site whereas in this group it was more likely to be teachers seeking support. The ICT co-ordinators in this group were also slightly more likely to be approached by governors than in the main sample again indicating the higher level of Internet Safety awareness amongst these schools.

However, the respondents from the Internet Proficiency Pilot schools reported themselves as less confident than those in the main sample in dealing with Internet Safety questions, with 28% considering themselves as not confident or neither confident nor unconfident compared to just over 10% of the main group.

5.2.7 Further guidance in IP Pilot schools

Requests for further guidance or resources from this group were mostly for support materials for parents and PowerPoint presentations or CD-ROMs for pupils, parents and staff. Their requests were similar to those from the main study with equal numbers requesting electronic and paper-based training resources. Current awareness updates also figured highly on both group's request lists.

5.3 Discussion of results from representatives of Internet Safety organisations[3]

Whilst responses were received from only three organisations, they can be seen to both support and differ from the concerns of the teachers in schools.

5.3.1 Physical measures of Internet Safety

Of the physical Internet Safety measures that can be put in place in schools, filtering systems provided by the school's Internet Service Provider with customised levels of access were recommended by all the Internet Safety organisations for both primary and secondary schools. Walled gardens were recommended for primary schools by two of the three organisations.

Again supervised access and monitoring websites visited were only recommended by two of the three. The schools themselves did indeed rely on high levels of supervision. However, this then begs the question – how to train pupils in safe surfing for when they are unsupervised, say at home? Addressing this question by teaching pupils Net literacy was cited by all the Internet Safety organisations as their single most important issue for Internet Safety. One organisation added the point that teachers need resources to be provided to ensure effective Internet Safety training takes place in schools.

5.3.2 Internet Safety Concerns for Internet Safety organisations

The types of breaches of Internet Safety that were a major concern for all three respondents were inappropriate access of chat or SMS messaging, bullying via email and receiving inappropriate emails. However, this did not match the schools' concerns. Chat was a major concern to only 20% of schools in the main sample and to a third of the Internet Proficiency Pilot schools and, in both groups of schools, 10% or less thought of SMS messaging as a major concern. Pupils' use of chat rooms did appear to be recognised by some schools as an emerging issue for Internet Safety, being cited as such by 8 of the Internet Proficiency Pilot schools and 13 of the schools in the main sample.

Informing parents about Internet Safety was a major concern for all three respondents, who also felt that it was largely the school's role to inform parents on the topic though one respondent made the point that the responsibility must be shared by different agencies.

Pupils' need to have free or unrestricted access to information was also a concern for all three respondents though one added that this needed to be balanced with the need to

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[3] Percentages given in this section are derived from the results and figures described in Section 4.3.

support and/or monitor younger pupils. Teachers' unrestricted access was a concern for only one of the respondents.

5.3.3 Emerging concerns for Internet Safety organisations

An emerging issue for the representatives of all three Internet Safety organisations was accessing the Internet via mobile devices leading to the loss of central control of filtering. Bullying via SMS or email was also mentioned by 2 of the 3 respondents though in this study it was found to be rare in schools. Lastly, potential abuse of peer-to-peer networking as it becomes more widely available was also mentioned once.

There is clearly a disparity between concerns for the different groups surveyed according to their views with the Internet Safety organisations being one if not two steps ahead of schools. Whilst chat is not a concern for schools because they are not using it in school, it is a major concern for the Internet Safety organisations. As for future concerns, schools worry most about email whereas the organisations have moved on to mobile technologies. The schools are currently most concerned about pupils viewing inappropriate material, reflecting their duty of care and 'in loco parentis' responsibility whereas the Internet Safety organisations' current focus is on latest developments which have yet to have an impact upon schools.

5.3.4 Further guidance suggested by Internet Safety organisations

Further resources suggested for schools by this group were that walled gardens ought to be more widely available, more online resources on school websites and more training for teachers. Both online and paper-based resources were suggested equally strongly.

5.4 Discussion of results from LEA Representatives for ICT in schools[4]

5.4.1 Physical measures of Internet Safety

The LEA advisors' recommendations on physical measures for ensuring Internet Safety largely supported what was actually found in schools. Sixty per cent of LEAs strongly recommended either ISP or LEA filtering for both primary and secondary schools rather than within school filtering which was recommended as a sole measure by only one LEA. Within-school filtering in addition to ISP or LEA filtering was recommended for secondary schools by 6 LEAs and for primary schools by 4 LEAs.

Conflicting with the recommendations from the Internet Safety organisations but in line with what was found in schools, customised filtering at different levels for different age

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[4] Percentages given in this section are derived from the results and figures described in Section 4.4.

ranges in schools was recommended by only around 20% of the LEAs, as were walled gardens.

Thirty nine per cent (39%) of LEAs questioned had an intranet set up for secondary schools and 28% for primaries. Those that did have an intranet set up recommended that their schools use it.

Supervising pupils' Internet access was not recommended by all LEAs. Seventy-eight per cent of LEAs strongly recommended it to primary schools and only 33% recommended it to secondary schools. One LEA made the point that supervision policy was up to the schools. A much higher percentage (72% for primary and 83% for secondary) recommend monitoring the websites visited by pupils through the browser histories or log files.

Similarly, firewalls were considered a high priority recommendation for both primary and secondary schools though the main study found that teachers were uncertain over the location and presence of a firewall.

Class email was strongly recommended by 78% of LEAs and closed email systems by 33% of LEAs for primary schools but not so emphatically for secondary schools. However, in the main study, class emails were only found to be used in 3% of schools and closed systems in even fewer.

A further recommendation from one LEA indicating they share the Internet Safety organisations' concerns over mobile technologies and Internet access were that their schools should discourage the use of mobile phones and texting via the Internet in school.

5.4.2 Internet Safety concerns for LEA ICT advisors

LEA concerns over Internet Safety breaches differ from those of both the schools and the Internet Safety organisations. Unlike the schools, they are concerned more over deliberate access rather than accidental access of inappropriate information and like the schools, they do not share the Internet Safety organisations' concerns over chat and SMS messaging. It may well be that each group is concerned most about issues that they feel they cannot control, and for schools this is accidental access of inappropriate material which the LEA tend to believe they are on top of in their role as ISPs whereas, for LEAs, it is deliberate access of inappropriate material which the schools feel they can monitor due to their knowledge of their pupils.

Slightly more LEAs than schools in the main study (61% of LEAs as opposed to 51% of schools) reported informing parents about Internet Safety as a concern. Largely they felt it was the school's role to inform parents about Internet Safety though a third added that this should be with LEA or community support.

LEAs were more concerned than the ICT co-ordinators in the main study for pupils' freedom of access to information (66% reporting this as a major or minor concern as opposed to 50%) and much more concerned for teachers' unrestricted access to information (72% as opposed to 28%).

There was no obvious agreement amongst LEAs as to what was their single most important Internet Safety concern with 14 different themes emerging. The most commonly reported issue from 4 LEAs referred to children's abilities to interfere with the filtering systems, 2 reported potential for contact between children and strangers and another 2, Internet Safety awareness in schools.

5.4.3 Emerging concerns for LEA ICT advisors

Again responses regarding emerging issues were very diverse, with the most commonly reported (by 4 LEAs) emerging issue being individual email addresses for pupils. This matches with the ICT co-ordinators' own concerns for the future.

5.4.4 Further guidance requested by LEA ICT advisors

When asked for recommendations for further resources, this group were much more likely to suggest online resources than the other groups surveyed, though their ideas for content were similar. Most requests were for examples from practice in other schools or LEAs or an updating service.

6 Key Findings and Recommendations

Ninety five per cent (95%) of the schools surveyed in the main study had Internet filtering arrangements in place though the respondents were not always aware where the filtering occurred nor how it operated. All the Internet Proficiency Pilot schools had filtering in place and independent schools were slightly more likely than other schools not to have filtering in place.

Filtering arrangements in state schools tend to be LEA dependent. Customised filtering systems with differing levels of access were recommended by all the representatives from Internet Safety organisations but by only a few of the LEA representatives. They were not reported by many schools though this may well be due to a lack of knowledge of the filtering system rather than their absence.

There was a good deal of confusion in schools over the presence of walled gardens, which were strongly recommended by the Internet Safety organisations, and firewalls, also strongly recommended by LEA advisors as well as Internet Safety organisations. Of the schools that reported they had a walled garden and named it, most gave an ISP as the product name rather than a genuine walled garden.

Resulting recommendations for Becta

- To make further guidance on filtering options available to schools, although as only 20% of schools referred to having used the NGfL Superhighway Safety materials, it may well be that they don't know what is already available.

- To raise the profile of the Superhighway Safety materials in schools. This survey has made a start on this, pointing teachers to these materials and suggesting issues to be included in schools' Internet Safety policies.

Breaches of Internet Safety reported by schools were most likely to be pupils accidentally accessing inappropriate material. In fact, accessing inappropriate material is the teachers' single most important Internet Safety concern, with accidental access being more of a worry than deliberate access. Teachers feel a responsibility to act 'in loco parentis' and are worried about pupils viewing something that is out of their control. Deliberate access of inappropriate material is less of a concern for schools, who report 'knowing' their pupils, their abilities and their motivations, than it is for the LEA advisors.

In response to these concerns over accidental viewing of inappropriate material, schools tended to rely heavily on supervised Internet access, often ensuring that pupils only visited websites recommended by the teacher. This may lead both to a lack of awareness of good Internet Safety practice amongst children when surfing the Internet outside school and a lack of emphasis in school on developing search and evaluation skills. This is a particular issue with regard to learning to use chat and SMS messaging, which are largely unavailable to pupils in schools.

Resulting recommendations for Becta

- To provide advice for LEAs on enabling chat in schools and support for schools aimed at teaching children to use chat rooms and SMS messaging safely

Eighty-nine per cent (89%) of schools in the main study have an Internet Safety policy in some form or another in school, with about half of these expecting parents, pupils or both to sign to show their agreement to the statements in the policy. Schools (and their LEAs) tend to rely on the policy to disseminate Internet Safety information both within school and at home.

Many schools reported they were concerned about parental awareness of Internet Safety issues. Most schools, all the LEAs and Internet Safety organisations recognise they have a responsibility to work together to inform parents about Internet Safety and need resources to support them in this.

Resulting recommendation for Becta

- To develop resources for schools to use to raise parental awareness of Internet Safety. Schools suggested PowerPoint presentations or video on CD-ROM, leaflets and photocopiable materials as well as a central online resource.

Teaching Internet Safety was reported in only 85% of the schools, where it is most likely to take place solely within the subject area of ICT and is more likely to be delivered via an Internet induction programme or the school's acceptable use policy than through a specific scheme of Internet Safety work. Additionally, whole-class reminders are common when using the Internet for research, especially in primary schools.

Teaching Internet Safety as part of Net literacy is the single most important concern for all the Internet Safety organisations and for nearly a fifth of the Internet Proficiency Pilot schools, yet worryingly does not appear as a concern for schools in the main study. It does not appear that schools are really doing all that needs be done to empower pupils to take responsibility for their own Internet Safety outside the school environment.

Resulting recommendation for Becta

- To develop teaching materials for schools to use with pupils in Key Stages 2 and 3 aimed at developing Net literacy and safe surfing practices that enable pupils to use the Internet responsibly and usefully both in and outside school.

When looking at future concerns for Internet Safety, it was clear that schools and LEAs differed in their views from the Internet Safety organisations. Both schools and LEAs largely focused on pupils' use of e-mail. They worried over how to monitor it and the ethics of doing so, how to control the use of web-based email in school and were concerned over the time and network resources email used whereas the Internet Safety organisations had moved on to worries over Internet access from mobile phones.

ICT co-ordinators would in general appreciate further guidance on Internet Safety and especially the emerging issues, with most asking for resources they could use with other teachers, parents and pupils with approximately equal numbers asking for electronic and paper-based resources.

Resulting recommendations for Becta

- To raise awareness in schools of the guidance on use of email in the Superhighway Safety materials.

- To investigate means of filtering or monitoring Internet access for children using mobile technologies to surf the Web.

- To provide an updating service to alert schools and LEAs to developments in technologies and new guidance on their use in school.

It was noted that the schools signing up to the Internet Proficiency Pilot scheme tended to be more aware of Internet Safety issues than the schools in the main study and more concerned about their Internet Safety practices in school. This is symptomatic of the type of schools that volunteered to be involved in the scheme.

The information on which the above recommendations are based was obtained from individuals' self-report as they completed a questionnaire or telephone interview based on the questionnaire. This needs to be borne in mind as a potential factor in the responses.

Resulting recommendations for Becta

- For future research an observer (participant or non-participant) is needed in the classroom or at home to record what children are doing and saying.