

Audit of Internet Safety Practices in English Schools

Synoptic Report

This research project investigated and reported on current practices in teaching Internet Safety in schools in England. It followed and built upon the Internet Safety Survey of Local Education Authorities conducted by NAACE in April 2002. One thousand and twenty schools (1020) from those in 27 LEAs across England were randomly selected for the investigation. Five hundred and seventy-seven (577) responses to questionnaires, mostly completed through telephone interview (367) or by post (197), were obtained from the schools during June and July 2002. Independent, state and special schools were included in the survey at both primary and secondary level. Thirty-eight (38) further questionnaires were obtained from schools that had volunteered for the Internet Proficiency Pilot scheme run by Becta. ICT advisers from the LEAs sampled and representatives of Internet Safety organisations were also invited to complete a linked questionnaire. Responses were received from 18 LEA representatives and from representatives of three of the Internet Safety organisations.

Data was collected from the surveys, analysed and presented in the main report together with a literature survey and analysis.

The literature survey analysis revealed that there was a huge concern for the safety of young Internet users and that it was considered that schools should have a fundamental role in ensuring their safety. A conflict between the perceived and the actual risks of children using the Internet was highlighted where unsuitable material and paedophile activities were the greatest concern recorded in many studies, possibly overshadowing other equally damaging material that can be accessed via the web. The survey findings indicated that a thorough audit of Internet Safety practices was a vital stage in examining these practices and informing future planning.

As shown in Tables I to III below, the schools contacted as part of the audit represented a wide cross-section representative of the different types of school across England.

Table I. School Type	Number
Community	332
Voluntary aided or controlled	125
Foundation	23
Special	27
Independent	58
No data provided	12

No data provided 11

Table II. Age Phase	Number
Middle (approx 8-13)	15
Prep (approx 5-12)	8
Primary (up to 11)	319
Secondary (11-16 or 18)	192
Through (3 or 5 -18)	40

Table III. Area	Number
East Midlands	76
East of England	67
North East	58
North West	66
Outer London	56
South East	60
South West	73
West Midlands	48
Yorkshire and Humberside	62

Data analysis from the audit itself resulted in the following key findings.

Only twenty schools (3.5% of those approached) did not have Internet access and these were excluded from the rest of the analysis. Of these twenty, fourteen were independent schools.

Physical measures of protection

Five hundred and twenty-nine (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. Table IV shows the number of schools reporting filtering products.

Table IV. Which Physical Measures are in place in school to promote Internet Safety?	Yes, product name known	Yes, product name unknown	Not used or no reply	Don't Know
Filtering by Internet Service Provider	190	22	344	1
Filtering by LEA	239	106	212	
Filtering within School	102	40	413	2
Walled Garden	16	47	484	10
Firewall	86	229	229	13

Sixty-two per cent (62%) of schools report filtering taking place via the LEA, 38% report it taking place via the ISP and 25% of schools report that they had filtering systems in school. These total more than 100% as respondents have selected more than one option. Thus the vast majority of schools have filtering in place though there is confusion over where it is carried out, especially where the LEA acts as the Internet Service Provider (ISP).

The 28 schools without a filter (5% of the total) are shown by school type in Table V below.

Table V. Type of Schools with no filter	Number with no filter	Total no. of Schools	Percent
Special	1	24	4
Independent	7	44	16
Voluntary aided or controlled	6	124	5
Foundation	0	23	0
Community	14	330	4

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 four 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 and firewalls. Walled gardens were strongly recommended by the Internet Safety organisations and firewalls were strongly recommended by both LEA advisers and Internet Safety organisations. However, of the 16 schools that named a walled garden, 15 gave the name of an Internet Service Provider (ISP) rather than referring to a genuine 'walled garden' product.

A number of schools recognised their need to know more about Internet Safety and filtering software with 42 requests being made for Internet Safety training materials for teachers, 36 requests being made for specific guidance on filtering and a further 23 for guidance suitable for parents. Whilst it may be argued

that there is no need to be aware of the detail, it is enough to know that filtering is being carried out, information gleaned from interviews suggests that 'not knowing' becomes a problem when other teachers or pupils are prevented from accessing a web page and promptly come to ask the ICT co-ordinator why.

Resulting recommendations based on evidence gathered

- 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.

Frequency of breaches of Internet Safety and concerns

As shown in the chart (Figure 1) below, breaches of Internet Safety reported by schools in the main study were most likely to be pupils accidentally accessing inappropriate material. The LEA advisers also reported accidental access of inappropriate material as the most frequent breach of Internet Safety heard of by them; 5 of the 18 heard about it more than once a term, followed closely by deliberate access (4 of the 18 hearing about it more than once a term).

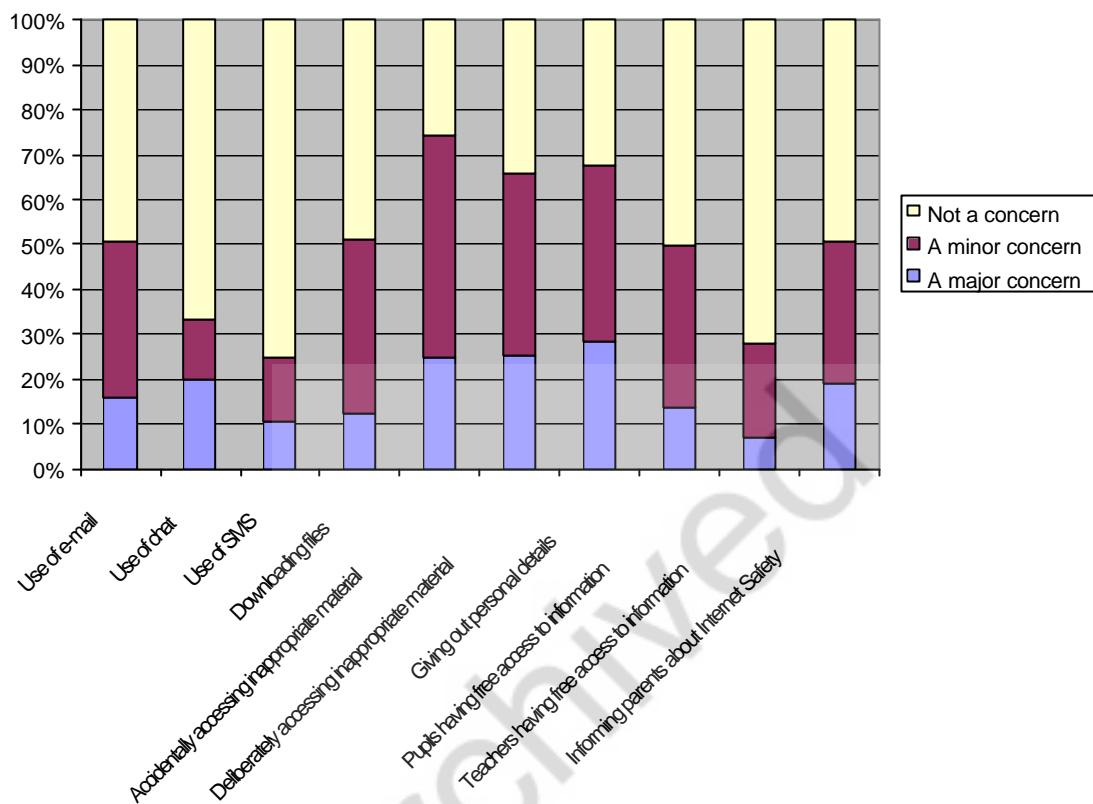
In fact, as shown in Table VI below, accessing inappropriate material is the ICT co-ordinators' single most important Internet Safety concern and the chart of ICT co-ordinators' levels of concern over Internet Safety issues (shown in Figure 2 on the following page) indicates that accidental access is slightly more of a worry than deliberate access.

Table VI. The most frequently cited single most important Internet safety issues	No. of times suggested
Accessing inappropriate material	142
Filtering	61
Email	39
Ensuring safe Internet access at school	36
Pupils giving out personal details	35
Supervising pupils	27
(No issues)	25
Safe Internet access at home	18
Chat rooms	14
Monitoring Internet use	13
Current awareness of Internet safety issues	9

There was much less agreement amongst the LEA advisers as to what was their single most important Internet Safety concern, with fourteen different themes emerging. The most commonly reported concern from four LEAs referred to children's abilities to interfere with the filtering systems; a further two reported potential for contact between children and strangers as their single most important Internet Safety concern and another two, Internet Safety awareness in schools.

By contrast, all three of the representatives from the Internet Safety organisations reported children's Net literacy as their single most important Internet Safety concern.

Figure 2. Level of Concern over Internet Safety Issues amongst Main Study Schools



It appears that 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 slightly less of a concern for schools who report “knowing” their pupils, their abilities and their motivations. The LEA advisers also considered deliberate and accidental access of inappropriate material to be their most serious Internet Safety concern though for them deliberate access was slightly more of a concern than accidental. However, the breaches of Internet Safety that were of most concern to all of the representatives of Internet Safety organisations were inappropriate access of chat or SMS messaging, bullying via email and receiving inappropriate emails.

Thus education professionals’ concerns over Internet Safety can be seen to stem from the perspective of their role, with teachers and LEA advisers focusing on within-school experiences, whereas those of the Internet Safety professionals focus on the potential for harm from others.

In response to ICT co-ordinators’ concerns over accidental viewing of inappropriate material and time limited teaching sessions, schools tended to rely heavily on supervised Internet access, often ensuring that pupils only visited websites recommended by the teacher. For instance, as shown in Table VII below, 62% of schools supervise all Internet access at all times. For secondary schools this is more than is recommended by the LEAs, with 33% of the LEA advisers recommending supervision of all Internet access and 56% of schools reporting it. The opposite is occurring in primary schools, with 78% of the LEA advisors recommending supervision of all Internet access and 66% of schools reporting it.

Table VII. Supervising Internet access	Number of schools
Always by teacher/staff/helpers	347
In classroom or computer suite only	26
Usually/mostly	15
Younger pupils only	9
Remote monitoring	3
Some pupils only	5
Not used	83
No data	65

This emphasis on supervision may lead to both 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 independent search and evaluation skills. This is a particular issue with regard to learning to use chat and SMS messaging which, as shown in Table VIII below, are largely unavailable to pupils in schools. Only 32 schools (5%) allowed their use for school work and fewer, 24 (4%), allowed pupils to use them recreationally.

Table VIII. Numbers of schools allowing chat/SMS messaging	Allowed for school work	Allowed for recreation
All pupils	19	16
All in class / under supervision	2	3
In named site (MSN messenger, think.com, Not.OP, Sourceror)	3	0
All (internal chat site only)	2	0
Restricted range of pupils	6	5
None	509	517
No data/don't know	16	16

Resulting recommendation based on evidence gathered

- To provide advice for LEAs on enabling chat in schools and support for schools aimed at teaching children about the use of chatrooms and SMS messaging safely.

Email is used more widely than chat in schools, as shown in Table IX below, though facilities are still unavailable to pupils in 16% of schools and pupils are not allowed to use them in a further 6% of schools. The LEA representatives strongly advised the use of class emails with 14 of the 18 recommending their use for primary schools and 6 recommending them for secondary schools, but they were reported by only 4% of the schools in the study.

Table IX. Numbers of schools allowing email use	Allowed for school work	Allowed for recreation
All pupils	235	129
All in class / under supervision	12	4
All via group/teacher emails	19	0
All via closed site (epals)	3	0
Restricted range of pupils	152	47
Restricted age group & group emails	5	0
None	122 (88 n/a)	356 (88 n/a)
No data/don't know	9	21

Schools can also monitor the websites visited by pupils by using the history in the browser, site-logging software or by asking for records from their Internet Service Provider and, as shown in Table X below, 58% of schools do so regularly though 78% (14 of the 18) of the LEA advisers recommend doing so.

Table X. Monitoring websites visited by pupils	Number of schools
Yes	246
Yes – at LEA/ISP	25
Yes – in school	52
Occasionally done	9
Can do so if needed or suspicious	7
Not used or no 'yes' answer ticked	200
Don't know/ info. on supervising provided	18

Internet Safety Policies

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. Topics covered in the policies are shown in Table XI below.

Table XI. Topics included in Internet Safety Policies	Percentage including this topic
Use of WWW in school	78
Use of email in school	67
Sanctions for misuse of the Internet	61
Details of filtering systems at school	60
Advice on not giving out personal information	59
Details of monitoring carried out	58
Strategy or policy for what to do if an incident/violation occurs	53
Other strategies for ensuring Internet Safety	42
Home-school liaison issues	37
Use of chat or SMS at school	35
Teaching or curriculum issues surrounding Internet use	35
Use of school email at home	18
Recommended teaching resources for Internet Safety	17

Other strategies for Internet Safety included in their policies by more than one ICT Co-ordinator are listed in Table XII below.

Table XII. Other Internet Safety strategies mentioned in policies	No. of times suggested
No photos and names on web site	6
Advice to keep username secret	4
Staff supervision ensures safety	4
Disk drives disabled	2
Emphasis on advantages of using Internet	2

Schools (and their LEAs) tend to rely on the policy to disseminate Internet Safety information both within school and at home. As shown in Figure 2 earlier, just over half the schools reported they were concerned about parental awareness of Internet Safety issues, these schools, all the LEAs and Internet Safety organisations recognise they have a responsibility to work together to inform parents about Internet Safety and a number of requests were made for resources to support them in this.

Resulting recommendation based on evidence gathered

- 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 on-line resource.

The percentage of schools already using guidance from other agencies to develop their Internet Safety policies is shown in Table XIII below.

Table XIII. Use of Internet Safety Policy Guidance in Schools	% of schools using their policy guidance
LEA	59
DfES Superhighway Safety pack	19
DfES Superhighway Safety Website	20
Becta Information sheets	32

Teaching Internet Safety

Teaching Internet Safety was reported in 85% of the schools. It is most likely to take place solely within the subject area of ICT (66% of schools teaching Internet Safety) and, as shown in Table XIV below, is more likely to be delivered via an Internet induction programme or whole-class teaching and making use of the school's acceptable use policy than through a specific scheme of Internet Safety work.

Table XIV. Types of schools and teaching methods (% of schools in each type shown)	Induction Programme	Policy	Posters	Whole class	Worksheets	Discussion
Middle	67	47	33	53	7	20
Prep	75	38	38	63	0	38
Primary	39	50	45	67	17	49
Secondary	73	64	47	59	22	37
Through	41	29	24	29	9	26

Primary schools are more likely than schools with other age groups to use discussion activities and secondary schools are more likely to use their Internet Safety policy as a teaching vehicle. All through schools which tend to be special or independent are less likely to be teaching Internet Safety at all.

Use of worksheets was mentioned by 17% of primary and 22% of secondary schools but when teaching materials sent to the project team were looked at, this was found to mean more general Internet worksheets than specific ones on Internet Safety.

Additionally whole class reminders are common when using the Internet for research, especially in primary schools.

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

Resulting recommendation based on evidence gathered

- 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.

As stated earlier, 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.

Future concerns for Internet Safety

When looking at future concerns for Internet Safety it was clear that schools and LEAs differed in their views from the Internet Safety organisations. The most frequent responses given to the question "What do you see as emerging issues for Internet Safety?" are given in Table XV below.

Table XV. Number of times Emerging Issues in Internet Safety were suggested	Schools in the Main Study (n=557)	Internet Proficiency Pilot Schools (n=38)	LEA ICT advisors (n=18)	Internet Safety Organisations (n=3)
Increased use of email	84	10	4	
Increased Internet access	36	4	1	
Proliferation of unsuitable material	26	1	2	
Effectiveness of filter	22	3	1	
Increased IT capability of pupils	20	3		
Safe Internet access at home	15	8	1	
Safety in chatrooms	13	8	1	
Implementation of effective policy	17	2		
Giving out personal details	11	3		
Keeping up to date on Internet Safety issues	11		1	
Downloading (unsuitable material, games or viruses)	9	2	1	
Internet Access via mobile devices	6			3
Hacking	5		3	
Bullying emails	4			2
Access to video-conferencing	3		1	
Raising awareness/Net literacy		3		1
Abuse of peer2peer networking				2

Both schools and LEA advisers largely focused on pupils' use of email. 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 and peer2peer networking.

Resulting recommendations based on evidence gathered

- To raise awareness in schools of the guidance on use of email in the Superhighway Safety materials.
- To provide an updating service to alert schools and LEAs to developments in technologies and new guidance on their use in school.
- To investigate means of filtering or monitoring Internet access for children using mobile technologies to surf the Web.

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 could be explained by the fact that those schools involved in the Internet Proficiency pilot scheme were self nominating, therefore have already identified a need to teach this particular subject.

Finally, 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 recommendation based on evidence gathered

- 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 in relation to this topic.

Archived