



UK Schools Online Safety Policy and Practice Assessment 2014 Annual Analysis of 360 degree safe self review data

Prof Andy Phippen, Plymouth Business School, Plymouth University

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Executive Summary

The *360 degree safe* tool¹ provides schools in the UK with the means to self review their online safety provision, practice and policy across 28 different aspects, ranging from the technical, such as filtering and passwords, to training for staff, governors and awareness in the wider community. The tool provides detailed advice and support on self-evaluation and improvement meaning schools can both baseline and enhance their practice using it. It is intended to be both a base-lining tool for schools to begin to understand the strengths and weaknesses of their online safety policy and practice, and also a self-improvement tool which provides detailed advice on how schools can move from their baseline assessment to a journey of self improvement around these issues.

Analysis of the self-review data from 5,500 UK schools² using *360 degree safe* tool presents a unique picture of national schools online safety practice and policy. This report concludes both the "state of the nation" together with improvement trends over the four year life of the tool, and also exploration of the long term use of the tool.

Overall the tool shows a small but consistent improvement across virtually all aspects of online safety policy and practice, as defined by the tool. This year, as in other years, the strengths evident from analysis of responses are those in the policy and technical areas, the strongest aspects being:

- Filtering
- Policy Scope
- Acceptable Usage Policies
- Digital and Video Images
- Policy Development

¹ www.360safe.org.uk

² May 2013



And the weakest aspects are those requiring longer term effort and resource:

- Community Engagement
- Impact of Policy and Practice
- Governor Training
- Staff Training
- E-Safety Group

Both Staff Training and the Monitoring and Reporting of e-Safety Incidents have some of the weakest averages and narrowest standard deviations across the whole data set, showing that these are still areas where schools are consistently struggling where, in a lot of cases such practice is still under development.

In terms of other key findings, we can see general improvement but are also seeing an increasing trend for increased variability (as evidence through increasing standard deviations of aspects).

For example, Mobile Phones and Handheld Devices, a policy based aspect that allows a school to define how mobile devices are used within the establishment setting, shows a clear increase in standard deviation, which would reflect the differing perspectives between schools about whether or not to engage with mobile devices ("grasping the nettle") or considering them too risky to deal with in schools at this time.

When comparing the differences between primary and secondary schools, in the last report we saw primary schools starting to "catch up" in terms of policy and practice and in some cases they were overtaking secondary schools. However, this year we are starting to see secondary schools increasing the lead once more in a number of areas, in particular those of a technical nature. We can certainly say that this year we have seen an increase in performance of secondary schools that was not there over the last couple of years, but we can also say that primary schools are performing far more effectively than they used to be.

However, given the more significant increase in the number of registered schools, and the opportunity to now explore 4 years worth of data, 360 degree safe data shows a consistent improvement, albeit small, across the country. And with the longer-term analysis of data it clearly shows that intervention and engagement with online safety issues, reflecting the value of the tool for school improvement.

E-safety provision in schools is not something that can be fixed overnight. It is a journey that is facilitate by the tool for establishments wishing to engage long term with it.





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Introduction

360 degree safe was launched by SWGfL in November 2009 to allow schools to evaluate their own online safety provision; benchmark that provision against others; identify and prioritise areas for improvement and find advice and support to move forward.

Over 5500 schools have already used the free resource which integrates online safety into school policy and the curriculum in a way that actively challenges teachers and managers in the school to think about their online safety provision, and its continual evolution.

The flexibility of 360 degree safe is such that it can be introduced at any speed (as appropriate to the school's situation) and can be used in any size or type of school. As each question is raised so it provides suggestions for improvements and also makes suggestions for possible sources of evidence which can be used to support judgements and be offered to inspectors when required.

In one particularly interesting development, where evidence is needed, the program provides links to specific areas of relevant documents, rather than simply signposting documents on the web. This saves time for everyone concerned about online safety, and allows the school to show immediately the coverage and relevance of its online safety provision.

360 degree safe will also provide summary reports of progression, (again this is useful when challenged), and is an excellent way of helping all staff (not just those charged with the job of implementing an online safety policy) to understand the scope of online safety and what the school is doing about the issue.

Above all 360 degree safe provides a prioritised action plan, suggesting not just what needs to be done, but also in what order it needs to be done. This is a vital bonus for teachers and managers who approach the issue of online safety for the first time, in a school which has no (or only a very rudimentary) policy.



This self review process is more meaningful if it includes the perceptions and views of all stakeholders. As broad a group of people as possible should be involved to ensure the ownership of online safety is widespread.

Once they have registered to take part in 360 degree safe process the school will be able to download the Commitment to E-Safety Certificate for signing by the Headteacher and Chair of Governors as a sign of the commitment to use the online tool. Once the school has completed some of the elements of 360 degree safe tool then the E-Safety Certificate of Progress can be awarded.

When the school meets the benchmark levels it is formally assessed before being awarded the "E-Safety Mark", an award validated and approved by Plymouth University .

For more information subscribe to the SWGfL E-Safety mailing list for future updates at: www.swgfl.org.uk/mailinglist and visit the website http://www.360safe.org.uk/

An overview of the 360 structure, detailing aspects covered, can be found at http://360safe.org.uk/Files/Documents/360-degree-safe-Structure-Map.

In September 2010, the first analysis of the 360 degree safe database was published by the South West Grid for Learning (<u>http://www.swgfl.org.uk/Staying-Safe/Content/News-Articles/Largest-ever-survey-of-E-Safety-in-schools-reveals</u>) based upon data returned from 547 establishments across England. Subsequent reports in January 2012 and May 2013 have seen a significant uptake in the tool, from 1055 to over 3000, with particular increase after OFSTED inspection changes in Sept 2012³. In this, the fourth report in the series we can seen further take up of the tool – the data analysed in this report draws from returns from 5,500 schools across the UK.

Methodology

An overview of the 360 structure, detailing aspects covered, can be found at <u>http://360safe.org.uk/Files/Documents/360-degree-safe-Structure-Map</u>. Establishments carry out the self review via a web interface and submitted data is stored in a relational database structure which holds the information in a collection on related "tables", each table related to a specific data element within the system. The three data tables which provide the core for analysis relate to establishments, 360 degree safe aspects, and individual ratings, which detail an entry that an establishment has made against a specific aspect.



³ LINK to 2012/13 report



Each establishment's "profile" comprises a number of entries in the rating table, each related to a specific aspect. It is possible for an establishment to have more than one entry in the rating table associated with a specific aspect which would reflect that they are using the tool for school improvement around online safety practice. An establishment's profile will also reflect their current stage

Given the relational structure of the 360 degree safe data, the primary approach to analysis is through the use of SQL⁴. This approach provides the means to explore the data in the table structures. In addition, summary data was loaded into Microsoft Excel for further statistical analysis and graphing.

Analysis of the data focuses on establishment's self review of their online safety policy and practice, exploring their ratings against the 28 aspects of 360 degree safe. Aspect exploration allows the measurement of degrees of progression and improvement in the self review and those where, in general, policy and practice among UK educational establishment requires support to deliver further progress.

It is acknowledged that the data being explored is self reviewed – the establishments give themselves ratings against the aspects and level definitions. It is not "validated" data without an inspection, which will only occur if the establishment wishes to gain accreditation. However, self review is well established practice within the UK school system and level descriptors are very clearly defined. In addition, accreditation visits to date have demonstrated that in the instances of inspection that have occurred, self review ratings have been generally accurate. Indeed, many schools are generally conservative with their assessments. We also now have a sufficiently large database that "anomalous" returns are very apparent and can be followed up with the school or its local authority.

The 360 Degree Safe tool (http://www.360safe.org.uk) is a tool developed by the South West Grid for Learning (SWGfL) – an Internet Service Provider used by the majority of schools in the South West of the UK and lead partner in the UK Safer Internet Centre – to allow schools to self review their online safety policy and practice. Developed by a group of online safety experts, its defines 28 aspects related to online safety, from policy issues through factors such as staff training to technical measures like filtering. For each aspect the tool provides a numeric rating between 1 (the strongest rating) and 5 (the weakest) with a detailed definition for each to allow schools to determine, for each aspect, how their school performs. Generally, these levels are defined as:

Level 5	There is little or nothing in place
Level 4	Policy and practice is being developed
Level 3	Basic e-Safety policy and practice is in place
Level 2	Policy and practice is coherent and embedded
Level 1	Policy and practice is aspirational and innovative

 Table 1 - Overall level definitions for the 360 degree safe tool

Schools conduct a review of their establishment against these criteria, for each one deciding at what level they currently perform. Every submission to the tool is recorded into a database to allow the

⁴ <u>http://en.wikipedia.org/wiki/SQL</u>



school to review and develop their own performance and also provide a large dataset for analysis of online safety policy and practice across the educational landscape as a whole.

While it might be argued that self review data may be open to bias and inconsistency, self review is an established method of evaluation within UK schools. Macbeath (1999)⁵ has commented at length on the need for self review as a key factor in school improvement. Other authors have commented on its effectiveness when combined with a strong set of evaluation criteria (Kyriakides & Campbell, 2004)⁶ and Schildkampa et al (2009)⁷ have highlighted the value in self review tools for professional development. Therefore, we can be confident that a self review approach to online safety, particularly with such strongly defined criteria, is an effective way of schools considering and improving their online safety practice. ⁸

It should also be noted that given the size of the 360 Degree Safe database (at the time of writing over 5,600 schools have enrolled and participated in self review), anomalous results are very easy to detect and the institution with such data can be explored in more detail. This can be further validated when we compare the correlation of the data set from this year's key statistics with last years (see below). One final measure of validity is that the tool does have an aspect of external validation – schools may opt for online safety certification when they reach a certain level on the tool. If a school wishes to apply for certification, they are subject to a daylong inspection which qualitatively judges the quality of their online safety provision and policy and allows judgement to be made on their self review scores. To date this mechanism has not identified any anomalous scores – schools are generally consistent and honest with their ratings. It might be argued that, given the tool is intended for development and improvement purposes, it is not in the school's interest to inflate their scores.

Details of the Establishments Analysed

In this years analysis we decided to take the development of the use of the tool over a full school year, hence the data collection being in September. As will be explored below the school year activity is showing a year on year consistency in terms of the pattern of activity. Therefore, the data drawn for analysis for this report was taken on September 20th 2014.

As with last year's report, to the previous year's analysis there are significantly more schools signed up to 360 degree safe at this time, over 2000 more schools have been added to the tool. Furthermore, the number of schools signed up and embarked on the self review has almost doubled (from 2314 to 4038) and almost 1000 more schools have completed the full profile. This gives us an extremely detailed and comprehensive database to measure the current state of online safety policy and practice in schools in the UK.

⁵ MacBeath, J. (1999). "Schools must speak for themselves: The case for school self-evaluation." London: Routledge.

⁶ Kyriakides, L. & Campbell, R.J. (2004). "School self-evaluation and school improvement: a critique of values and procedures". *Studies in Educational Evaluation*, 30 (1): 23-36.

⁷ Schildkampa, K., Visschera, A. & Luytena, H. (2009). "The effects of the use of a school self-evaluation instrument". *School Effectiveness and School Improvement*, 20 (1): 69-88



Establishments signed up to the tool on Sept 20 th 2014	5500
Establishments who have embarked on the self review process	4038
Establishments with full profiles completed	2210

 Table 2 - Database baseline figures

Figure 2 also gives us an illustration of the times when schools embark on the self review process. In the last couple of years we can see a clear pattern emerging across the school year, with more activity occurring at the end of the autumn and spring terms. This is also reflected when we explore overall activity on the tool later in this report.



Figure 2 – Beginning self review

In figure 3 we see a regional breakdown of establishment locations – it is interesting to note that while in the early days of the tool the majority of the schools were drawn from the South West (unsurprisingly given this was where the majority of schools the SWGfL worked with were based) we now see a far broader spread on school regions with almost as many schools coming from the Midlands as the South West, and another significant proportion in the North West. Wales and the North East are also areas where we have seen significant uptake over the last year. The small overseas section refers mainly to service schools abroad – Service Children's Education, an agency of the UK's Ministry of Defence⁹, which provides education for MoD employee's children overseas.

⁹ <u>http://www.sceschools.com/home.php</u>







The "phase" of the establishment responses shows the breakdown between primary, secondary and post-16 and nursery. Once again we can see that primaries, unsurprisingly, far outnumber secondary schools. However, when we consider the proportion of new schools joining in the past year almost double the number of primaries are now in the database. However, when considering the number of secondary schools compared to primaries there are a higher proportion of secondary schools adopting the tool this year, going from 664 in the previous report to 1462 in this one. There are also a number of "not applicable" establishments that have been omitted from this graph as they are not school settings (local authorities, etc.).



Figure 4 - Establishment "phase"

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Analysis of Aspect Performance

We begin the analysis of the performance of online safety policy and practice with a top-level example of ratings given for each aspect at different establishment. The methodology remains the same as that for previous years - the "best" rating any establishment has provided, given this reflects where establishments currently stand in their self review. However, given that 360 degree safe is intended for use to improve as well as evaluate practice, a feature of the 360 degree safe database is that it records *any* evaluation on a particular aspect made by an establishment at the time and date of entry. This data can be used to explore which areas are showing improvement in schools. This is explored in far more detail later in this report.

It should also be noted that it is not necessary for an establishment to have completed the full self review to have its data logged in the tool. Therefore, different aspects have been rated by different total number of establishments. In total, 2210 establishments from our population have carried out the full self review, and a further 1828 additional schools have reviewed at least one aspect. Of those establishments that have not completed a full review, figure 5 illustrates the variety of levels of completion to date. It details the number of establishments that have achieved each given number of aspects to show the range of completion from a single aspect to almost complete.





This breakdown shows a spread of responses across the board – there are many establishments who have just embarked on their self review journey, whereas there are many others who are nearing completion. As with previous reports, it is clear that the 15th aspect (Professional Standards) is a pause point for many schools. As highlighted in the past, If we are to assume that most Establishments carry out the review in a linear manner (i.e. they start with aspect one and continue to aspect 28), the 16th aspect – Password Security – is the first aspect that might need technical intervention or input from a technical member of staff. Therefore, it would seem (and this is borne



out with discussions with 360 degree safe assessors and also staff users in schools) that the review is paused while technical information is sought.

In exploring the data from a different perspective, we can also gain a view on the more "popular" aspects but looking at the activity around each one. Figure 7 shows this and at first glance certainly confirms the linear approach to the review process. Certainly we can also see a significant step up in terms of activity across the database with some aspects almost double compared to last years activity. We can also see, once again, that it is the technical aspects of the self review Filtering, Password Security and Personal Data.



Figure 6 - Aspect frequency

However, perhaps the most interesting aspect of the change from 2013 to 2014 is that the increase in activity around each topic is around 60% on every single one. In correlating the data from 2013 and 2014 we see a correlation coefficient of 0.998, which shows an extremely strong correlation between the two data sets, suggesting activity is increasing at a uniform rate.

State of the Nation 2014

The top level review of the 360 database explores what we refer to as the "State of the Nation". This applies basic statistical measures to the database to get an overall picture of the data to allow us to understand where online safety policy and practice is, in general, across the country. However, we should note, as ever, that we can only measure the performance of schools who have engaged with the tool and we would hypothesis that those who have decided to adopt 360 degree safe into school self review practice would be more committed to online safety than those who have yet to use it. Therefore, we should once again stress that we believe that the database shows a better than average picture of online safety policy and practice across the whole school sector. However, as will be discussed below, we can see that the State of the Nation "shape" differs little from one year to the next which gives us confidence that the database shows a true picture of schools' practice and policy and with new establishments coming on board we have an increasingly consistent picture.





Each aspect can be rated by the self reviewing establishments on a progressive maturity scale from 5 (lowest rating) and 1 (highest). In all cases analysis of the aspect ratings shows an across establishment maximum rating of 1 and minimum of 5. Therefore, in order to determine cross-establishment performance, average scores for each rating are used to measure areas of strength and weakness in online safety policy and practice. Figure 8 illustrates overall averages across aspects:



Figure 7 - Average ratings per aspect

Once again we can show an overall "state of the nation" that is improving over the previous year and this will be illustrate in figure 11. This shows that, overall, practice and policy across the country is improving. However, the overall "shape" of the data remains the same and there are no noteworthy changes in where the strengths and weaknesses lie, indeed a correlation coefficient of 0.997 between this year and last years data shows how strong a pattern is now established in the data, even with the addition over almost 2000 new schools undertaking self review.

Figure 8 orders the aspects from strongest to weakest and this clear shows the strengths in the technical and policy areas and the weaknesses in more resource intensive education, training and engagement activities.





Figure 8 - Aspects ordered from best to weakest

Table 3 shows the top 5 aspects and their relative values over the last 4 years and again shows the consistency of strong aspects.

2010	2011	2012/13	2014
Filtering (2.57)	Filtering (2.5)	Filtering (2.47)	Filtering (2.40)
Acceptable Use	Policy Scope (2.65)	Policy Scope (2.55)	Policy Scope (2.52)
Policies (2.78)	Acceptable Use	Acceptable Use	Acceptable Usage
Policy Scope (2.8)	Policies (2.71)	Policies (2.69)	Policies (2.66)
Digital and video	Digital and video	Digital and video	Digital and Video
images (2.93)	images (2.83)	images (2.74)	Images (2.67)
Policy development	Policy development	Policy development	Policy Development
(3.02)	(2.88)	(2.78)	(2.77)

Table 3 - Strongest aspects over 4 years

If we look at the data in a different way, we can see that all of the strongest aspects are showing improvements. Figure 9 illustrates this development across the different aspects.





Figure 8 - Strongest aspect development over time

We will return to aspect improvement in a number of places in this report. It is interesting to note that improvement to two of these aspects (policy scope and filtering) are "levelling out" compared to some of the other aspects. It could be (and this will be something explored in subsequent reports and analyses of the 360 degree safe database) that aspect performance will level to a "good enough" level for a lot of schools.

If we explore the weakest aspects in the database, we also see a familiar trend over the years. Those aspects that focus on education or long term resource commitment are generally weaker. Table 3 and Figure 9 illustrate this clearly with slight improvement but consistency in the weakest aspects of the tool.

2010	2011	2012/13	2014
Community	Community	Community	Community
understanding (4.03)	understanding (4)	understanding (3.89)	Engagement (3.88)
Governor training	Governor training	Monitoring the impact	Impact of Policy and
(4.03)	(3.93)	of the e-safety policy	Practice (3.77)
Monitoring the impact	Monitoring the impact	and practice (3.84)	Governor Training
of policy and practice	of the e-safety policy	Governor training	(3.69)
(3.96)	and practice (3.9)	(3.82)	Staff Training (3.61)
E-Safety Committee	E-Safety Committee	Staff training (3.71)	E-Safety Group (3.6)
(3.94)	(3.82)	E-Safety Committee or	
Staff training (3.84)	Staff training (3.76)	Group (3.64)	

 Table 4 - Weakest aspects over 3 years





Figure 9 - Improvement in weakest aspects

All of these aspects require long term development and commitment of resources (for example, regular and up to date training or monitoring). Some also require engagement outside of the school staff into the wider community (for example, the consistently weakest aspect – Community Understanding). As with the strongest aspects, all have improved to some degree, which is encouraging to see. However, some are, as with the strongest aspects "levelling" out which is somewhat concerning given the weakness as aspect such as Community Understanding has.

Finally, in our top level analysis, we present standard deviation as a measure to test the variability of each aspect across establishments. This is a useful complimentary measure when used alongside aspect averages to explore whether a particular feature is strong or weak consistently, or whether there is variability between different establishments. A high standard deviation would mean that different establishments were using a broad range of scores for self review, whereas a narrow one shows a consistent score across establishments. Figure 10 shows the standard deviations across the aspects:







Figure 10 - Standard deviation of aspects

There are no significant "surprises" with this analysis compared to previous years, although there are some areas of interest when comparing to previous years data which will be explored in the next section of the report. However, as we would now expect from 4 years of data analysis, "Filtering" is a high average and low standard deviation, showing that this aspect is consistently strong across establishment. Other strong aspects have a greater degree of variance. If we were to consider, for example, Mobile Phones and Handheld Devices, we can see a far broader standard deviation, suggesting that this, policy based, aspect is far more variable across different establishments, which would reflect the differing perspectives between schools about whether or not to engage with mobile devices ("grasping the nettle") or considering them too risky to deal with in schools at this time.

In considering the weakest aspects, we can see that both Staff Training and Monitoring and Reporting Incidents still have some of the lowest standard deviations across the database. This continues to suggest that these aspects continue to be weak across many schools.

Year on Year comparison

This year provides four years worth of data to analyse and see how the picture of online safety policy and practice has evolved over this time. While the number of establishments continues to grow, as discussed above, the fact that the "shape" of the data remains the same reflects the robustness of the database it also allows us to both explore difference between new entrants and those who have embarked on a school improvement journey around the online safety policy and practice.

To begin with figure 11 shows the comparison between the four sets of averages from 2010 through to the present dataset. Its shows a very similar pattern but an improvement across all aspects.







Figure 11 - Comparison of aspect averages 2010-2014

While there is clearly a slight variation in improvement over the years the "shape" of the data as a whole has been extremely consistent, which is significant given that the 2010 data contained only a few hundred schools when the latest data comprises more than 4,000.

However, we can see some difference when considering how aspects improve year on year and which improve the most and least between data sets. If we look at table X, the "most improved" aspects between data sets are as follows:

2010-2011	2011-2012/13	2012/13-2014
Governors (0.16)	Professional standards (0.24)	Governor training (0.13)
E-Safety Committee (0.14)	Mobiles (0.18)	Personal data (0.12)
Policy development (0.13)	E-Safety Responsibilities (0.17)	Staff training (0.1)
Policy Scope (0.13)	E-Safety Committee (0.16)	Whole School (0.09)
The contribution of young people	Website, etc. (0.15)	Technical Security (0.09)
(0.12)		

Table 5 - Aspect improvement - most improved

In each comparison it is interesting to note that each comparison elicits different aspect improvements with only E-Safety Committee (now called e-Safety Group) appearing more than once. It is also interesting to note with the 2012/13-2014 comparison that two of the consistently weakest aspects (Governor and Staff training) are showing the some of most (albeit not significant) improvement over the last year. However, they are still weak compared to the majority of other aspects).



For the least improved aspects, again there is variability in which are making less progress. However, the changes in these aspects of so small there is little need to reflect on the significance of these changes as there is probably little aside from the slight variability of new establishments starting to use the tool.

2010-2011	2011-2012/13		
Information literacy (0.01) Self Evaluation (0.01)		Governors (-0.008)	
Parental education (0.01)	Acceptable Use Policies (0.02)	Social Media (-0.005)	
Community understanding	The contribution of young	Self Evaluation (0.006)	
(0.03)	people (0.03)	Community Understanding	
M&R Incidents (0.04)	Password security (0.04)	(0.006)	
Personal data (0.04)	E-safety education (0.04)	Policy Development	
		(0.008)	

Table 6 - Aspect improvement - least improved

Figure 12 shows a comparison of standard deviations across the four datasets. Again, as with comparison of averages, the shape of the different deviations remains the same, even with the addition of a significant number of schools.



Figure 12 - Standard deviation comparison

However, over the last year there are a couple of aspects that show some change over the last year. While some standard deviations are increasing, others are decreasing. Figure 13 illustrates this more clearly.





Figure 13 - Change in standard deviation between 2010 and 2012/13

A positive value in figure 13 shows that the standard deviation is getting broader, and a negative one shows it getting narrow. We can see a number of negative values which show aspects such as parental education and community understanding getting less broad. This is something of a concern given these are weak aspects on average (i.e. a narrowing standard deviation of a weak aspect means this is weak across a majority of schools, rather than variation). We also see a marked increase in the breadth of the deviation for Information Literacy, which means that while some of the schools in the database are obviously investing more resource in this educational aspect, others are not. However, perhaps the most interesting to consider is the increase in standard deviation of the connectivity and filtering aspect. This is consistently been a very narrow standard deviation, reflecting that, until recently, most schools would use the same ISPs (normally local authority supported grids for learning from the National Education Network) and therefore get similar services. However, with the move of schools away from local authority influence, it would seem that as they replace their previous ISPs with different more diverse ones, this is impacting on the consistency of filtering in schools. It will be interesting to reflect on this trend in the coming years.

Aspect Improvement

Given the volume and history we now have in the database, one thing we can do far more effectively now is explore how aspects change over time and how the tool is not just used for baselining but also for school improvement. This can, initially, allow us to explore improvement on a per aspect basis, but also expand this to see how school improvement for online safety is conducted. Figure 14 shows the number of times a given aspect has been modified across the entire database population:





Figure 14 - Number of times an aspect has been modified across all schools

If we consider those aspects most frequently updated e-Safety Group is by far the most enhanced and those at the start of the review process – Responsibilities, Governors and Policy Development are updated far more than others. However, when comparing to previous years we can see more consistent activity across all aspects. For the first time Connectivity and Filtering is not the least modified aspect (again showing a greater variability as schools change their providers and services implemented). However, we should note that the least modified aspect is also a technical one – Personal Data. This does raise some concerns given that schools increasingly handle sensitive data on young people (assessment data, behaviour, biometrics, etc.) and it is still an aspect that is, on average, less than 3 (basic provision). We would hope that as schools use more sensitive data their focus on the protection of personal data would increase. However, this might require some policy "nudges" to ensure the protection of sensitive data is seen as a priority and it will be an aspect we return to in future analyses.





Figure 15 - Average change in aspects over time

Finally, figure 15 defines the overall mean change in average aspect ratings over the life of the tool. It continues to show a variety of development with a clear distinction terms of policy/technical and long term investments. Once the first 4 aspects are removed (the frequency of the updates to these being significantly higher than the others), there are a variety of value changes, with technical aspects improving the least (Connectivity and Filtering improving the least, which goes some way to explain an increased standard deviation). However, it is encouraging to see that some of the traditionally weak areas such as Governor Training are improving at a higher rate. However, a consistent concern is the level of staff training in schools which has historically been shown to be consistently poor in the 360 degree safe database and we can clearly see this is one of the weakest areas of aspect improvement.

Primary and Secondary Journeys

The differences between primary and secondary schools in the database has always been one of the most variable parts of the analysis, moving from a clear and consistent strength of secondary schools compared to primary schools in the first couple of years of use of the tool, then a great variety last year when, in some cases, primary schools were demonstrating better performance than secondary schools. In last years report we could see that in a lot of cases primary schools we improving rapidly while for some aspects secondary schools were standing still. This year presented another interesting opportunity for analysis, given that a higher proportion of secondary schools had recently adopted the tool compared to their primary counterparts.







Figure 16 - Primary/secondary comparison 2014

Once again, with the comparison of the data from primary and secondary schools, we can see a mixed picture that differs greatly from early analyses where secondary schools always outperformed primaries. While there are some aspects where secondary schools do have a higher average (such as filtering, password security and technical security – reflecting a greater resource in secondary schools for addressing these technical aspects) in some cases primary schools are performing more strongly (for example Governors and Governor Training). However, this has been a year where secondary schools are "catching up" in their weaker areas, which can be illustrated by looking at year on year comparisons.

Figures 17 to 20 clearly show this change over time, a negative value shows a stronger primary than secondary performance. So in figure 17 we can see in 2010 secondary schools were consistently better, however, over the next two years primary schools started to improve and in some cases outperform secondary schools and where secondary schools were "better" the gap was not as large as it once was.







Figure 17 - Primary/secondary comparison 2010









Figure 19 - Primary/secondary comparison 2012/13



Figure 20 - Primary/secondary comparison 2014

In these last two years we can see that secondary schools are again increasing the "lead" in some aspects (such as the technical aspects as well as some educational ones) and while primary schools are still ahead for a number of aspects the gaps are not as significant as they were. We can certainly say that this year we have seen an increase in performance of secondary schools that was not there over the last couple of years.

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In considering the improvements of the two phases independently we can still see significant improvement in the performance of primary schools over the lifetime of the tool. This is illustrated in figure 21.



Figure 21 - Aspect improvement for primary schools over time

Table 7 shows the best and weakest improvements since the first adoptions of the tool. At this stage we do not consider whether this is improvements of schools who adopted the tool early or that later adopters started from a stronger baseline. However, we do explore this in a later section of the report.

Primary schools best improvements	Primary schools weakest improvements
Professional Standards (0.6)	Self Evaluation (0.15)
Mobile Devices (0.53)	Filtering (0.23)
Whole School (0.51)	Parental Engagement (0.25)
Governors Training (0.46)	Acceptable Use Agreement (0.26)
Personal Data (0.42)	Community Engagement (0.26)

Table 7 - Most and least improved aspects for primary schools

For secondary schools, the development as far more mixed:







Figure 22 – Aspect improvement for secondary school over time.

With the exception of e-Safety Group, there is now some improvement over most aspects (particularly compared to last year) for secondary schools. However, for 4 aspects there is still a reduction in performance in 3 aspects with another 2 standing still since the original baselining of the data in 2010.

Table 8 details the best and weakest improvements for aspects for secondary schools. It clearly shows that for some of the weakest aspects, such as Social Media and Acceptable Usage, there is a slight reduction since baselining. We can also see that while they have a number of improving aspects the improvements are nowhere near as significant as those for primary schools.

Secondary schools best improvements	Secondary schools weakest improvements
E-Safety Committee or Group (0.38)	Social Media (-0.1)
Governor Training (0.18)	Acceptable Use Policies and Agreements
Connectivity and Filtering (0.14)	(-0.04)
Sanctions (0.14)	Technical Security (-0.02)
Governors (0.14)	Self Evaluation (0)
	Parental Engagement (0)

Table 8 -- Most and least improved aspects for secondary schools

Location Analysis

With last year's report, we only briefly explored location issues as the picture seemed to have normalised to a point where location did not impact on variability of performance. However, with the addition of significant numbers of schools in new areas, we can now, once again, see some variation. If we consider the plot in figure 23:







Figure 23 – Regional variation

We can see that while the general "shape" is the same we have two outliers in terms of performance. For the Wales region, where a lot of schools are just starting to use the tool, we can see areas of weaker practice, although the launch of 360Cymru is expected to significantly help. Another area with a number of new additions, Northern Ireland, also shows a deviation from the expected "shape", with more variation across aspects to our expected areas of strength and weakness. We can hypothesise that due to the comparatively small number of Northern Ireland schools, we have a greater range of data than we might expect (i.e the stronger and weaker performing schools will skew the data) and we would expect this data to "smooth" as more schools adopt the tool.

As with last year, if we decompose to a local authority level, there is great variability but it still follows the same shape. However, we can show that across local authorities while shape is fairly consistent, performance is not and this is nicely illustrated by comparing the "best" local authority with the "weakest" one. We consider best and weakest from a cumulative average of overall authority averages per aspect – the lower the cumulative score, the "better" the performance. Not all local authorities were included in the analysis, in order to manage outliers and anomalous results we only took local authorities with more than 10 full profiles. Figure 24 shows the difference between the "best" local authority and the "worst" one, as well as including the overall average:







Figure 24 – Comparison of strongest and weakest local authority profile compared to average.

In this comparison we see a great variability in shape – while the best and average share similarities the "weakest" profile shows far greater troughs in the weak areas with only filtering being a clear strength anywhere near the values of either the average or strongest profile. It is interesting to note that, even though the "peaks" around policy and technical aspects remains with the strongest authority, there is an increasingly smooth shape to that radar plot – demonstrating an investment in aspects across the tool, not just the less labour intensive ones.

We can also compare this "best" authority with two neighbourhood measures – one a geographical neighbour and one a statistical one (as defined as a "very close" statistical neighbour by the DfE statistical neighbours tool which bases commonality on a number of depravity measures. If we explore this in figure 25:







Figure 25 – Comparison between 'neighbours'

The "best" authority shows the performance of schools in the authority that has the lowest cumulative average. It is interesting to see that their geographical neighbour shares a similar, albeit more variable, shape but is constantly underperforming compared to its neighbour. However, we are aware that these authorities are very different – the "best" being a rural and semi rural authority and its neighbour being mainly urban. Therefore, if we are to hypothesise that geography will have an impact then a statistical neighbour, it again underperforms against the "best" authority. This gives greater strength to the argument that grass roots activity can make a difference to schools performance overall – we know that in the "best" authority there has been a great deal of school improvement activity around online safety and this is reflected in the performance of the region.

The 360 Journey

It has been discussed throughout this report that the 360 degree safe tool should not be seen just as a baselining tool but one that can support school improvement around online safety – it provides a number of support mechanisms to get schools to develop their policy and practice and with four years worth of data we have a great opportunity to understand how schools improve if they use it in this way. The first part of this is to compare the start and current position of "early adopters" (pre Sept 2011 registrants) with the recent adopters (post Aug 2013). This is illustrated in figures 26 and 27:





Figure 26 – Pre Sept 2011 starting and current averages

From figure 27 we can see significant improvements for early adopters across all aspects – while there is variety in the level of improvement in different aspects we can see that those who have been using the tool for over 3 years can show significant improvement.



Figure 27 – Overall improvement for early adopters

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If we compare this with the more recent adopters (figure 28), we can see how prolonged use will create a more marked improvement. However, it is clear that even those who have recently adopted the tool have shown signs of improvement (see figure 29).



Figure 28 - Post Aug 2013 Adopters starting and current averages





However, an extremely interesting observation can be made on the starting position of early and recent adopters. The two datasets share a correlation coefficient of 0.978 the shape of the respective sets is very similar, and when we compare the two starting points in graphical form, there is, generally, little variation:





Figure 30 - Variation between early adopter starting points and recent adopter starting points

While there is some variety, in general the starting points are within 0.15 either way. It is extremely interesting to note that the recent adopters are showing a very similar starting point to those who adopted the tool very early in its life.

So what we can see from this analysis is that 360 degree safe is not simply a base lining tool, it clearly empowers schools to map and improve their online safety policy and practice.

360 degree safe integrates an associated quality mark, the e Safety Mark. This externally and independently assessed mark is awarded to schools meeting the published standards across all aspects, recognising and celebrating each successful schools efforts and priority. At this time over 100 schools have received the e Safety Mark. Whilst all these successful schools represent outstanding online safety policy and practice, it offers the opportunity to identify exemplary practice. Appendix 1 includes a list of all schools in receipt of the e Safety Mark, together with exemplary aspects of their practice.

Summary

Overall the tool shows a small but consistent improvement across virtually all aspects of online safety policy and practice, as defined by the tool. This year, as in other years, the strengths evident from analysis of responses are those in the policy and technical areas and the weakest aspects are those requiring longer-term effort and resource. The tool shows that some weak areas, such as Staff Training and the Monitoring and Reporting of e-Safety Incidents, which have been consistently weak over the lifetime of the tool, remain so – while the overall average is higher now than in 2010, the difference is no large and we can still see these are aspects that are weak across the vast majority of schools in the database.



We can also see an increased variability of practice in some areas, for example, Mobile Devices, shows a good deal of variability, reflecting the difference between schools about whether or not to engage with mobile devices or considering them too risky to deal with in schools at this time.

Finally, when comparing primary and secondary schools, we can see that secondary schools are starting to improve performance once again (after a couple of years where primary practice was definitely catching up with them) and in some areas (such as technical ones) clearly outperforming secondary schools. However, it is encouraging to see that, even with fewer resources, primary schools continue to improve at a faster rate, in general, than secondary schools.

Overall, given the more significant increase in the number of registered schools, and the opportunity to now explore 4 years worth of data, 360 degree safe data shows a consistent improvement, albeit small, across the country. And with the longer-term analysis of data it clearly shows that intervention and engagement with online safety issues, reflecting the value of the tool for school improvement.

E-safety provision in schools is not something that can be fixed overnight. It is a journey that is facilitate by the tool for establishments wishing to engage long term with it.





Appendix 1 – E-Safety Mark Awards and Associated Exemplary case studies

Bradon Forest	Swindon	Secondary	SN5 4AT
Heles School	Plymouth	Secondary	PL7 4LT
Saltash School	Cornwall	Secondary	PL12 4AY
St Marks School, Weston S Mare	North Somerset	Primary	BS22 7PU
St Josephs School, Portishead	North Somerset	Primary	BS20 6QB
Gateacre School	Liverpool	Secondary	L25 4SD
Marlbrook School, Hereford	Herefordshire	Primary	HR2 7NT
Brooke School, Rugby	Warwickshire	Special	CV22 6DY
Willenhall School Sports College	Walsall	Secondary	WV3 8BE
Stroud High School	Gloucestershire	Secondary	GL5 4HF
Hasbury CE Primary School	Dudley	Primary	B63 4QD
Painsley Catholic College	Staffordshire	Secondary	ST10 1LH
Haygrove School, Bridgwater	Somerset	Secondary	TA6 7HW
Slim School, Hohne, Germany	SCE	Primary	BFPO 30
Chasetown Community School, Burntwood	Staffordshire	Special	WS7 3QL
Abbey Park Middle School, Pershore	Worcestershire	Middle	WR10 1DF
Etone College, Nuneaton	Warwickshire	Secondary	CV11 6AA
Priors Field Primary School	Warwickshire	Primary	CV8 1BA
Hamworthy Middle School, Poole	Poole	Middle	BH15 4DG
Henley in Arden	Warwickshire	Primary	B95 5LT
St Davids School	SCE	Primary	BFPO 109
Much Woolton Catholic Primary School	Liverpool	Primary	L25 8QH
John Whitgift Academy, Grimsby	NE Lincs	Secondary	DN34 9EH
Barking Abbey School	Barking & Dagenham	Secondary	IG11 9AG
Dunchurch Boughton Junior School	Warwickshire	Primary	CV22 6NE
St Oswald's Cof E Primary School	Warwickshire	Primary	CV22 7DJ
Stockingford Infants School	Warwickshire	Primary	CV10 8JH
Christ Church Academy	Staffordshire	Middle	ST15 8JD
Oak Hill PRU	North Somerset	PRU (KS2/3)	BS48 2NN
West Hatch High School	Essex	Secondary	IG7 5BT
Walsall Wood School	Walsall	Primary	Ws8 7BP
Chaddlewood Primary School	Plymouth	Primary	PL7 2EU
Ashlands CofE First School	Somerset	Primary	TA18 7AL
Oasis Academy Brightstowe	Bristol	Secondary	BS11 OEB
Perton First School	Staffordshire	Primary	WV6 7LX
Our Lady of the Angels Catholic Infant School	Warwickshire	Primary	CV11 5TY
Sandon Business, Enterprise & Arts College	Stoke on Trent	Secondary	ST3 7DF
Aldridge School - A Science College	Walsall	Secondary	WS9 0BG
Everton Nursery	Liverpool	Nursery	L6 2WF
The Friary School	Staffs	Secondary	WS13 7EW
St Mary's Catholic Primary School	South Glos	Primary	BS32 8EJ
Milverton Primary School	Warwickshire	Primary	CV32 6ES
Misterton	Somerset	Primary	TA18 8LZ





Eastlands Primary School	Warwickshire	Primary	CV21 3RY
Ravenswood School	North Somerset	Special	BS48 2NN
Walton Priory Middle School	Staffs	Middle	ST15 0AL
Minehead First School	Somerset	Primary	TA25 5RG
Cleeve Primary School	Hull	Primary	HU7 4JH
Anlaby Acre Heads Primary School	E Riding of Yorkshire	Primary	HU4 7ST
Langdale Primary School	Staffs	Primary	ST53QE
St Mary's C of E Primary School	E Riding of Yorkshire	Primary	HU17 7HD
		Support	
Virtual School for Sensory Support	Norfolk	Service	NR7 9QL
St James CE Primary School	Dudley	Primary	DY8 4RU
		Independent	
Bedes Senior School	E Sussex	Sec	BN273QH
Summerhill School	Dudley	Secondary	DY6 9XE
St Mary's Catholic Primary School	Swindon	Primary	SN2 1PE
Michael Drayton Junior School	Warwickshire	Primary	CV10 0SZ
Bridge Town Primary School	Warwickshire	Primary	CV37 7JP
William Shrewsbury Primary School	Staffs	Primary	DE13 OHE
Magull High School	Sefton	Secondary	L31 7AW
St Mary's Catholic Primary School	Dudley	Primary	DY5 2TH
Princefield First School	Staffs	Primary	ST195EP
John Wilmott School	Birmingham	Secondary	B75 7DY
Westfield Primary School	Staffordshire	Primary	WV5 8BH
St John's CE A Primary School	Stoke on Trent	Primary	ST4 6SB
Two Gates Primary School	Staffordshire	Primary	B78 3YB

St Margaret's Church of England Primary School, Sandwell: The E-Safety committee is a very proactive unit and the impact of their work is visible throughout the school. The e-safety lead has had an invaluable role in establishing and maintaining the activities of this group. They make a difference.

Rydon Primary School, Devon: The school has adopted the Common Sense Media Digital Literacy programme which is being rolled out across all year groups in September. All staff have received training in its delivery and all teachers have accessed some of the lessons this year to "try them out". This training and use of the materials has not only allowed staff to develop their knowledge of digital literacy, but has also fostered a confidence amongst staff to acknowledge what activities their children are engaged in online and to engage the children in discussion about, for example, social networking, gaming and self-identity.

Cherry Tree Learning Centre, Dudley (Short Stay School): There ongoing programme of E-safety delivered to pupils is outstanding with new issues added as they arise. The pupils complete an e-safety questionnaire annually that informs practice and impacts positively on E-safety lessons.





Peterborough Regional College, Lincolnshire (FE College): All Staff, including cleaners, groundsperson and caterers are trained in safeguarding and e-safety with refreshers at scheduled intervals. Safeguarding and e-safety is an integral part of new staff induction.

The safeguarding team have regular fortnightly meetings to discuss issues e.g. new technologies such as snapchat along with local issues; there is good communications with the LCSB, Police, and the hospital A&E. There is always a member of the safeguarding team available through a single mobile hot-phone, at risk students are supplied a mobile phone if required. The Youth centre team offer personal intervention with support and guidance and are very proactive.

All students have safeguarding and e-safety included in induction at the start of their course and continue to be encouraged to engage with various events throughout the year i.e. Safer Internet Day as well as other large scale themed events.

St Augustine's Catholic Primary School, Warwickshire: Mobile technology is being developed as a tool for learning. Everyone is aware of the procedures in place following an incident and any issues raised are logged in the report log, acted upon by the most appropriate person and dealt with according to the sanctions set down in the behaviour policy. Passwords are very strong and all pupils know they should keep a password to themselves

Dunster First School, Somerset: A supportive and inspiring partnership of the Headteacher and e-Safety coordinator worked over a three-year period to establish a robust and effective structure to embed e-Safety throughout the school. Time was prioritised to enable the e-Safety coordinator to work with other schools and children to develop the current practise. The children's voice is listened to through the school council and through conversations with children, to learn from them and to respond to indications that online behaviour needs to be discussed.

Cadoxton Community Primary School, Vale of Glamorgan: The school has a number of e-Cadets, who are a shining example of sound Online Behaviour. Their desire to work with and protect their peers came through strongly as did their knowledge and attitude to the Internet. The e-Cadets spoke about a wide breadth of knowledge and subjects.

Parents interviews clearly articulated their support of the schools' work in e-Safety and spoke of the changes that the parental body have experienced. The open and transparent approach of the school is well-thought of and parents felt supported in speaking with the school about any concerns they may have.

The work of the Family and Welfare worker should be highlighted as providing additional opportunities for staff to gain an understanding of any online issues that parents may be trying to resolve. In addition to this, the work led by the Headteacher beyond the school community, provides Cadoxton Primary School with a wide reach and opportunities to share experiences with a very wide community.

St Mary's Catholic Primary School, Swindon: Community involvement is a particular strength. Pupils, parents, governors and support staff are all active contributors which leads to a very rich learning environment for pupils. The KS1 pupils performance of The Three Little Pigs was reflective of the active engagement which could be seen at all levels, other examples include the KS2 'Rap' (that





was performed at a neighbouring secondary school) and the use of cybermentors to support the school community (both pupils and parents).

Berkley Church of England First School, Frome, Somerset: *Children talk with knowledge and passion about their e-safety learning. They are very clear about what to do if they see something they're not sure about, and know that they should keep an adult informed at all times about what they're doing. They have a deep trust in the staff and talk about how they are protected when in school – they know that if they're using a website in school, it will have been checked by the teacher for appropriateness - 'if they're not with us, they're either doing things with their family or they're on the computer so we know they're checking things for us'.*

The Friary School, Lichfield, Staffordshire: The school is supported by the local community police officers, who run regular assemblies to all year groups. They use the CEOP Think You Know material and during the accreditation visit the assembly taken by the police was on cyberbullying, as part of Anti-bullying week. The police have taken the model used at the school as an example of good practice. The school commissioned the Well Being and Inclusion team within the local authority to produce material for an age related e-safety scheme of work which is delivered by tutor staff or through PSHE. E-safety is also part of the ICT curriculum. There are a number of e-safety ambassadors in Year 8. These students have progressed from Year 7 where they were involved in producing an e-safety charter with another high school in the town.

St James's CE Primary School, Dudley: The staff clearly understood that 'Digital Literacy skills' were life skills. They talked confidently about ensuring pupils realised that the plausibility of information, was an important skill and a key focus when pupils used the internet to research information. Staff spoke about the strong support the ICT Co-ordinator, gave them. Staff felt informed and able to deliver this curriculum. There is a very open sharing ethos within the school. Staff can informally ask for feedback and advice when focussing on delivering elements of the e-safety scheme.

Hamworthy Middle School, Poole, Dorset: For the pupils at the school e-safety is embedded in their curriculum. A variety of resources are used and there are opportunities for the children to use critical thinking skills to analyse risk and benefit of their use of the internet. The school is part of the Rights Respecting Schools agenda, which puts the United Nations Convention on the Rights of the Child at the heart of its planning and ethos. This is reflected in the way that the e-safety committee and all the pupils engage with the responsible use of technology; both the schools' technology and their own. The school feels that this agenda allows children to learn about having a sense of responsibility towards each other in terms of digital communications.

West Hatch High School, Chigwell, Essex: *E-Safety education has been integrated into the ICT curriculum in Year 7 in a module where students make a presentation to teach others about E-Safety. It is also woven into the PSEC curriculum across KS3 and KS4. Topics are revisited. In addition assemblies throughout the year feature E-Safety content and the E-Safety leader responds to 'hot topics' when appropriate. E-Safety and wider digital literacy issues also figure in other curriculum areas, with staff sharing expertise and resources to develop the curriculum.*

Eastlands Primary School, Rugby, Warwickshire: The e-Safety committee led by the head teacher, actively strives to engage and enthuse young children and parents about e-Safety. At the moment there is a real buzz around the school as the children prepare to be filmed as part of an e-Safety





initiative (the film went on to win a major local award – the Coventry Telegraph Film Award). The school have secured funding from the '**Be Positive about Young Children**,' charity and the PTA have agreed to raise money to match fund the project. The film is based on the consequences of ignoring the e-Safety messages being delivered and children realising that they are responsible for their own actions. Children from the school are the actors in the film that takes place at the local magistrates courts. The children in yr 5 are in the process of having their e-Safety song professionally recorded as part of the filming process. The aim is to produce a package of resources for parents that their children have devised. This will be shared with the cluster schools. Children in year 5 should then be confident in delivering training to other schools, talking about the whole process and the implications of ignoring the e-Safety messages being taught.

Everton Nursery School, Liverpool: Staff responsible for developing curriculum provision have given careful thought to the way e-safety education can be embedded in the early years curriculum. The school has considerable expertise in leading early years pedagogy and were able to give detailed examples of day to day contexts in continuous provision, where skilled staff intervention and development guidance with pupils, helped them to begin to develop safer behaviours and choices in the wider social and emotional agenda with which the school works each day. Evidence of feedback to the school from primary schools, indicates that 'Everton pupils' are characterised by their levels of self confidence, independence and by their skills in conflict resolution; all essential elements of positive e-safety attitudes.

STEPS Centre, Chard, Somerset (a Pupil Referral Unit): *Parents explained how, as a result of the e-safety teaching at the PRU, their children had come home and adjusted the settings on the "Facebook" accounts for the whole family. This emphasised the "real learning" that had taken place.*

Walton Priory Middle School, Staffordshire: The education provided for the pupils on e-safety is of a high standard. As well as making good use of internet safety week each year, the school has a well-structured scheme of work that ensures pupils are regularly taught about e-safety and digital literacy in general. The team of esafety ambassadors I met with were very keen and knowledgeable and it was clear that pupil voice is important to the school, listened to, and acted upon. The school is planning to increase the involvement of the e-safety ambassadors in parent's evenings to try to reach more parents/carers. Links with the local first school are strong and there are further plans to develop the use of mentors from the school to work with the younger pupils. In my opinion, the education of the pupils in this school is of a high quality and continually evolving to take into account changes and developments in technology.