



**Issue 5
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Government ICT policy revealed?

The government's new ICT Strategy includes a strong emphasis on open standards for interoperability, a measure for which SALTIS has been lobbying over the last year. In respect of education, however, the strategy still leaves important questions still to be answered.



"For when they reach the scene of crime, Macavity's not there." For the last year, the government's ICT policy has had something of T S Elliot's mystery cat about it. So the publication by the Cabinet Office last Wednesday of its long-awaited and clearly worded ICT strategy is in itself very welcome.

Welcome too is the general thrust of the document. In several respects, it is closely aligned with arguments for which SALTIS has been lobbying over the last year. The government intends to:

- "impose compulsory open standards, starting with interoperability and security";
- "streamline procurement and specify outcomes rather than inputs";
- "create a level playing field for open source software";
- "stimulate economic growth by creating a fairer and more competitive marketplace, with greater direct opportunities for small and medium-sized enterprises (SMEs)";
- "create a presumption against projects having a lifetime value of more than £100 million";
- establish a "Government Skunkworks...to develop low-cost, fast and agile ICT solutions" allowing "SMEs and entrepreneurs to participate in government ICT with new and innovative solutions".

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Editorial



The publication of the new *Government ICT Strategy* ([see lead article](#)) marks an important step forwards in helping to define what the post-Becta world will look like. The strategy's emphasis on open standards is particularly welcome, and none the less so for having been widely anticipated.

Much of the strategy's detail still needs to be worked out, both at Cabinet Office level and by the DfE in terms of its impact on education.

SALTIS welcomes the strategy's presumption against big projects, its emphasis on competitive markets, and its recognition that innovation will grow, bottom-up, rather than being imposed, top-down.

At the same time, there remain unanswered questions. There is an obvious tension between the desires "to impose compulsory open standards" and "to specify outcomes rather than inputs". There also remain some education-specific issues which will need to be addressed:

- in education there are very few appropriate, mature interoperability standards which can safely be mandated;
- it is unclear where the division lies between government and public sector ICT, which in the latter case is likely to be procured in an educational context by individual schools and colleges.

The new strategy will continue to be refined at Cabinet Office level, as evidenced by its Open Standards Survey ([see article](#)). But it will be for the Department for Education to convert government-wide strategy into sector-specific policy. In this respect too, the Department is still in listening mode. On 22 March, the Information Standards Board held a consultative Stakeholder Event. Along with other industry participants at the event, SALTIS continued to urge caution with regards to the compulsory imposition of unproven standards. Given open markets, SALTIS believes that successful companies will adopt standards without the need for regulatory intervention. The role of government in these circumstances should be one of ensuring competitive markets and supporting appropriate processes for the development of new standards, without seeking to control those processes too tightly.

There are positive signs that these arguments are being heard, not least in the announcement that the Information Standards Board is to create a new Special Interest Group for industry. Implicit in this clear new direction of travel is also a challenge. If the government is prepared to loosen the regulatory leash in the interests of enabling innovation, then it will be for the industry to respond. As Bill McCluggage, the government's deputy CIO, told the industry in [a ZDNet interview on Friday](#), "Get off your perches and provide us with stuff we can actually use". In terms of education, this formula is likely to translate to "stuff that schools are prepared to pay for".



There are still opportunities to influence this process through the Cabinet Office's [online survey](#) and through engagement with the DfE and ESCS ISB, the latter now having announced that it is [to establish an industry SIG](#).

Meanwhile, ISO/IEC SC36 had its biennial conference in March. Although the ISO/IEC work is often rather formal and abstract, there are at least three projects which may be of significant interest: e-portfolio, competency definitions, and e-textbooks. SALTIS is already running a panel to facilitate stakeholder inputs into the e-portfolio work; and if anyone is interested in tracking the competency work, they should [drop me a line](#). The e-textbook project still lacks definition. SALTIS submitted two use cases over Christmas and I shall continue to report as it develops.

A considerable amount of work has also been done through SC36 on accessibility, not least by the UK's Andy Heath. With important recent initiatives in this area by Apple, the White House and the GPII project, there are signs that this work is beginning to come of age. Andy provides some reflections on the importance of accessibility standards, not just to support disability but also to deliver a wider agenda for personalisation.

As always, if you have any comments on any of the content in the Briefing, please do so at the [SALTIS LinkedIn discussion group](#).

News in brief

SC36 in Strasbourg

SC36, the ISO/IEC committee for learning, education and training, held its Spring conference in March at the University of Strasbourg. Sessions most likely to be of interest to SALTIS members are reported below.

Reference Model for e-Portfolio Information

Having listened to concerns raised by the UK and others, it was agreed that further drafting work should be undertaken on the e-portfolio Technical Report. During April, SALTIS is facilitating further discussions on the BSI e-portfolio panel to agree UK inputs into that process.

One substantive agreement in Strasbourg was to change the title of the Technical Report from "E-portfolio Reference Model" to "Reference Model for E-portfolio Information", a change which signalled a focus on data and not systems. It seems likely that many different types of software are likely to have an interest in e-portfolio data: wikis; online show-cases; assignment, assessment and coursework management systems; as well as what the purist would regard as the e-portfolio proper.

At the moment, we still have more questions than answers: how should privacy be handled? can portfolio information be collectively owned? can portfolio information reference external items? is it possible to draw up a comprehensive list of the different types of item or the relationships between them?

The SALTIS approach to these questions is to look to stakeholders to define concrete requirements. So if you would like your software to be able either to produce or to consume what might plausibly be counted as "e-portfolio information", please get in touch and let us know what your use case is. Even better, [get involved in the BSI panel](#).

Competency definitions

The ability to publish standard definitions of competency is widely regarded to be a key piece in the e-learning standards jigsaw. They are important for e-portfolios, which seek to reference student artefacts against the competencies that they claim to demonstrate; in the twin guises of "learning objectives" and "prerequisites" they are essential to the management of progression and differentiation that is attempted by SCORM and IMS Simple Sequencing; while they also form the backbone of formal assessment, coursework and human resource management systems.

But, as one standards expert summarised recent history in this area, "competencies form a large black hole into which many good people have disappeared". Three key questions are:

Cabinet Office publishes Open Standards Survey

Following its publication of the Government ICT Strategy ([see article](#)), the Cabinet Office has published an [Open Standards Survey](#), giving UK stakeholders an important opportunity to contribute to the refinement of the government's policy in this area.

Along with questions on the definition of "open" and an opportunity to make general comments, the survey consists of a series of themed pages which allow respondents to comment on the desirability of various named standards or to nominate unnamed standards. A single page deals with standards for e-learning and other pages can easily be skipped.

ESCS Information Standards Board to create industry SIG

At the ISB Stakeholders Event on 22 March, Dorian Bradley, the Independent Chairman of the ESCS Information Standards Board, announced that the ISB would be setting up a new Special Interest Group for industry.

Details and timings for the new SIG have not yet been announced. Nor is it yet clear how much influence the SIG will have on the ISB itself, which still does not have any industry representation on its board.

- When a learner is described as being good at competency x, what does this actually *mean*?
- How, if at all, can the learner's proficiency be *measured*?
- How should competencies be *structured*? Should it be possible, for example, to break a single competency down into separate sub-competencies?

SC36 Working Group 3 is bringing forward an information model for competency and proficiency which is intended to become an international standard. The document is still at an early stage and the questions above are still live ones. SALTIS will be organising input into a UK submission before the end of May. Please contact crispin.weston@saltis.org if you would like to be involved.

E-textbooks

E-textbooks are a new initiative being led by China and the scope of the project is not yet clear. There is obvious overlap with e-books, which is being handled by liaison activity between SC36 and SC34, a different ISO/IEC committee responsible for e-pub.

The most significant (and as yet unanswered) question is in what respects e-textbooks differ from e-books? Over Christmas, the UK submitted four use cases which focused on:

- the reporting of performance data from interactive elements;
- the modularity of e-textbooks allowing for flexible aggregation;
- the compatibility with open education resources;
- compatibility with appropriate accessibility standards.

Any UK stakeholders who would like to monitor and influence this project as it develops, please drop a line to crispin.weston@saltis.org.

Personalisation is coming

Andy Heath reflects on accessibility and use of the Access for All standards to support personalisation



Technology **can** improve our experience of living, it can enable us to do things we could not otherwise do, it can help us to communicate where otherwise we could not and bridge the gap between producer and consumer, between educator and learner and it can support an inclusive world. Best of all, it can enable us to reach the learners and the places that

Nevertheless, the new SIG will open a new and potentially productive channel between the industry and the DfE, which can only enhance mutual understanding in the standards arena.

European iTEC project seeks stakeholder input

European Schoolnet has launched its [iTEC programme](#) (Innovative Technologies for an Engaging Classroom) with a [questionnaire on current trends in e-learning](#).

Stakeholders are invited to give their views on the trends most likely to affect the use of e-learning in schools.

iTEC is a €9.45 million programme to explore the impact of technology on classroom practice. It will attempt to identify innovative learning activities, which will be built up through a series of prototypes to large-scale pilots. These will be run in over 1,000 classrooms across Europe.

Prototypes and pilots will be based on a set of "scenarios": narrative descriptions which illustrate how learning could occur in the ICT-enabled classroom of the future. [Scenarios currently under development](#) focus on:

- the use of video for creative projects;
- social networking and video conferencing for collaborative projects;
- e-portfolio and personal

other approaches cannot reach. But as **all** educators know, reaching **every** learner and **every** place is about meeting learners on their own ground and this is never more true than with accessibility.

Accessibility is sometimes described as dealing with **disability** but in fact it is much more. It's about matching what **is** or **can** be provided or generated to what individuals **require** to access whatever it is. Disability in this context might be thought of as the inability of system or content to provide what the user can consume and it extends to **all** users, not just learners and not just those who might accept or use the label "Disabled". Making content, system and services accessible is vital and will increase the range of customers for any product but a one-size-fits all approach is not sufficient to reach all and often not optimal for anyone at all. One-size-fits-all approaches do not reach completely across the producer-consumer gap. What we **really** need is for digital content and delivery systems to adapt to us as consumers, not the other way around - and it can be done. For education it **must** be done because it simply won't work without meeting individual needs for access. If you can't access it you can't learn anything useful from it.

Access for All is an approach that began with the work of the University of Toronto Assistive Technology Research Centre around 2003, became a specification in IMS Global Learning Consortium then a freely-available ISO/IEC standard (24751) "Individualized adaptability and accessibility in e-learning, education and training" in 2008 ([search for it here](#)). Its basic premise is that a user has one or more machine-readable profiles of requirements to which content or interface or system can adapt. Metadata associated with content, such as Learning Resources, mashup widgets or interfaces then enables matching to individual requirements, either by automatic configuration or by delivering alternative content, widget or interface.

This ISO/IEC standard was produced in ISO/IEC SC36 working group 7, which deals with standards related to "Culture, Language and Individual Needs". The standard is organised as pairs of matching parts, for example Personal Needs and Preference statements (PNPs) and matching Digital Resource Descriptions (DRDs).

The group continue to refine the standard and work on new parts that expand its scope, for example to deal with digital adaptations for non-digital resources, such as hearing loops, LCD displays in transport systems, electronic signs and notice boards etc. The group is also considering a possible update to the standard to support an approach more oriented to the semantic web and in line with other metadata work ongoing in SC36. The current standard is organised around tree-structured information models (like IEEE LOM 1484.12.1) and has an extensive categorisation of requirements but it might be argued that this form of the data model does not best support modification to support new technology and that in a time of rapid change such as the ongoing mobile device revolution it is important that it does.

learning plans to support personal development.

The iTEC scenarios illustrate ideas which will be familiar to UK observers who have tracked Becta and Futurelab literature over the last decade. The technology that they propose is mainly generic and currently available, such as digital cameras and social networking software. The success of the scenarios therefore depends on innovative classroom practice, rather than further technical innovation by industry.

However, it is also an objective of the project "to evaluate relevant state-of-the-art standards and specifications, to assess their usefulness and to suggest improvements. Undoubtedly, the project will also provide opportunities to elicit missing interoperability pieces that require further standardization work".

Final feedback from the project is scheduled for the Spring of 2012.

CETIS roadshow to mark final release of QTI 2.1

IMS QTI version 2.1, which has been in public draft since 2006, is due for final release during 2011. Rowin Young of JISC/CETIS has published [a briefing paper](#) reviewing the history along with the pros and the cons of the standard. In anticipation of the final release, CETIS is also

Several related pieces of standards work that support Access for All are underway or complete in other places. These include [British Standard BS 8878:2010 Web accessibility. Code of practice](#) and IMS Access for All 3.0. BS8878 shows how personalisation can be supported in organisational processes, where it is essential and where other approaches might be needed. IMS Access for All 3.0 is a simplified Semantic Web-based approach that addresses some potential technical limitations of ISO/IEC 24751 and is now available [in public draft for comment](#).

A real difficulty with personalisation in any realm is that it needs to be joined up. For example what is the value to a wheelchair user of an accessible meeting in an accessible hotel if the nearby railway station at which delegates would like to arrive is not accessible to wheelchairs? Often the big picture is confounded by some awkward detail. Joining things up requires a host of standards that work together and policy support within organisations. At a policy level, the potential benefits of adopting Access for All have been discussed within many high level initiatives including: in the USA - the FCC Broadband Plan, Dept. of State, Dept. of Education, The White House; in Europe there are several large Framework 7 projects, notably one called Cloud4All at the negotiation stage; in Canada, Ontario has discussed the benefits of adopting an Access for All infrastructure for Education; and elsewhere, UNESCO, The World Bank, The Internet Society (ISOC), World Summit on the Information Society (WSIS), OECD and [GPII](#) have all been involved in discussion of its benefits.

Andy has been a consultant in Accessibility Technology Standards with particular reference to eLearning for 12 years. During that time has worked on standards such as BS8878, ISO/IEC 24751 and IMS AccessForAll 3.0. He is an invited expert to the IMS Accessibility Special Interest Group, and is an editor of ISO/IEC 24751. His contact details are available on <http://www.axelafa.com>.

proposing to hold a QTI road show on 2 June. [See the CETIS website](#) for more details.

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