

Paper on Interoperability

Introduction

Becta has recently issued a statement on interoperability specifically for colleges, in which we state that we believe the time is now right to be increasingly prescriptive about the adoption of open standards to enable interoperability. We recommend that Colleges and other providers prepare for the intention to adopt SIF by 2010 and anticipate that it will become a mandatory requirement in future procurement specifications. Becta is working with representative organisations such as AoC and ALP to develop a shared understanding of SIF and its benefits to their members, and is setting up and funding a consortium membership of the SIF Association to increase the reach into the 14-19 sectors. We will also work with LAs, Regional Broadband Consortia, JISC RSCs and LSIS to establish the support that could be provided to learning providers, with DCSF, to incorporate open standards as an element of the Gateway Process.

Background

It has long been recognised that there are benefits and efficiencies to be gained by the integration of systems, both within providers and between providers, partnerships and related agencies, such as awarding bodies and MIAP (Managing Information Across Partners). The introduction of the 14-19 Diplomas and its dependence on partnership working has changed this from being a nice to have, to being an absolute necessity. Current methods of sharing information are in many cases ad hoc, manual and not scalable. Individual partnerships/providers are creating their own solutions and buying proprietary products which, whilst they may meet the immediate need as specified, will require expensive amendments as systems and requirements change over time.

DCSF and DIUS recognise that a high-level of confidence is needed to underpin the approval, adoption and embedding of any standard. Therefore a key part of the governance is the Information Standards Board for education, skills and children's services (ISB), which is sponsored by both DCSF and DIUS. The ISB is the system-wide authority for all information and data standards. Its mission is to facilitate information sharing across the system, agree information standards to aid front line delivery, improve efficiency, reduce costs and minimise bureaucracy. The ISB has Ministerial authority to make recommendations and approve decisions on behalf of the FE and Skills system.

The ISB operates through a number of Special Interest Groups (SIGs) and these investigate appropriate standards for particular types of information and make recommendations to the ISB. The ISB has recently recommended XCRI (Exchange of Course Related Information) as the preferred standard for course related information. This will assist suppliers and developers of area prospectus systems

and common application process systems in ensuring that their products have the capacity to share information.

Systems Interoperability Framework (SIF)

One standard which is of particular interest to the educational community is SIF (Systems Interoperability Framework). SIF is the accepted US national standard for communication between systems at a school, district and national level across 2200 software vendors. Becta is the lead partner for system-wide engagement with the SIF Association which has an active UK community. In 2008 we issued a Statement of Intent on behalf of both DCSF and DIUS outlining our joint approach to the use of the Systems Interoperability Framework (SIF) with a view to taking firm decisions by 2010 on the use of this framework for the movement of data between systems in schools, colleges and FE providers.

SIF is currently being piloted in Birmingham. The purpose of the pilot is to explore how SIF can be used in the UK to support the rapid and real time sharing of data between named systems. The pilot initially involves school systems, (including management information systems, library, catering and virtual learning systems) and local authority systems, and is being expanded to include colleges. The project is supported by Becta and its commercial partners and will provide a blueprint for the wider deployment of SIF to other Local Authorities. Becta will share learning from the pilot in Birmingham as it becomes available and will provide further guidance in relation to the use of SIF in 2010.

SIF is increasingly being specified as a requirement in tender documentation in preparation for full deployment in 2010. Colleges should therefore be proactive in learning more about SIF to prepare for its deployment and contribute to shaping its development. In particular, Becta advises colleges and their associated schools to start thinking about the business processes that they would wish to adopt when implementing the technology. Becta will be pleased to provide further information and guidance.

Becta is working with central agencies, awarding bodies, suppliers and educational providers to ensure that any recommendations relating to standards are fully supported and achievable. DCSF and DIUS Ministers have endorsed SIF as being the direction of travel and this remains the case. It is expected that SIF will be a central part of the solution, but that there will also be additional standards in specific areas such as XCRI.

Current Position

There is still much work to be done to bring some critical suppliers on board and it is suggested that it would be helpful if central agencies such as MIAP (Managing Information Across Partners) and DAS (Diploma Aggregation Service), and also awarding bodies, could lead the way. MIAP is already involved with SIF and working with the Birmingham proof of concept team. The adoption of SIF by these central

bodies will create a demand for SIF compliant MIS and related systems from suppliers; a demand which they currently tell us is not yet there.

Becta is currently working to aid the adoption of SIF by MIAP/LRS and MIS suppliers to support the automatic acquisition and maintenance of ULNs and the LRS database. This need has been highlighted by the Diploma Task Force to avoid the need for providers to maintain two sets of learner information – ie in their own MIS and in the LRS. Increasing difficulties are being experienced by ULN validations failing due to discrepancies between the two datasets – most commonly postcode.

Interest has also been expressed by awarding bodies and examination officers as they struggle to cope with different formats for examination entries and individual systems which require information to be re-entered.

Implications for BRG

The “collect once, use many times” approach depends on interoperable systems. Whilst suppliers will link systems together, these links are system specific and cannot therefore deal with changes to the set of systems involved. Information can also be moved between systems by batch update, but this is a snapshot and over time leads to divergent data sets, unless both are regularly updated.

Many central systems are developed in isolation and fail to make the best arrangements for obtaining and delivering information. By supporting open standards (such as SIF) the Bureaucracy Reduction Group can assist in ensuring that systems developed by central agencies and departments are genuinely interoperable. This reduces the need for double-entry of information, batch updates, checking of information to reduce inaccuracies, and thereby the information management burden on providers.

It is recommended that BRG uses its influence to ensure that the specifications for all new system developments impacting on the sector require them to be SIF compliant.

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